# Textbook of Medical Administration and Leadership

Erwin Loh
Paul W. Long
Peter Spurgeon
*Editors*

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ISBN 978-981-10-5453-2 ISBN 978-981-10-5454-9 (eBook)
https://doi.org/10.1007/978-981-10-5454-9

Library of Congress Control Number: 2018958541



This Springer imprint is published by the registered company Springer Nature Singapore Pte Ltd.
The registered company address is: 152 Beach Road, #21-01/04 Gateway East, Singapore 189721, Singapore

*I'd like to thank all the contributing authors for their chapters. This book would not have been possible without you.*

*I'd also like to thank Paul W. Long for his hard work in managing the editing and production process. A very time consuming and laborious task for which I am very grateful.*

Erwin Loh

*I'd like to thank Erwin for the invitation to co-edit this book and the many doctors who helped me in my research and gave me so much of their valuable time. I'd also like to thank my colleagues at the Centre for Health Leadership for their support and the rich and stimulating conversations, which made our work so interesting and rewarding for me.*

Paul W. Long

*I would like to thank my friends, colleagues, and contacts who have contributed to making my visits to Australia over the last twenty years so enjoyable and productive.*

Peter Spurgeon

# Foreword

On my first day as a very new medical director of a very large UK teaching hospital, I reached for the book on "how to do it" as I had reliably done stepping into a new job in all of my clinical years. To my dismay it did not exist—this is the book I was looking for.

*Textbook of Medical Administration and Leadership* is surely a must for any senior or aspirant medical leader in Australia. It is an absolute must for anyone venturing from abroad to work in Australia at any level but especially the more senior. Skillfully, the editors have amassed an impressive array of authors who have covered many of the generic essentials—the opportunity to compare systems is interesting and the book's coverage of core knowledge invaluable whichever country you work in. For example, chapters on health economics, service and strategic planning, and medical workforce management (and many more) are relevant to any system—and all prefaced by a seminal chapter on management and leadership (more generally) and clinical management and clinical leadership (more specifically).

All systems grapple with the wicked problems of demographic change, accelerating technological opportunity, the relentless drive for improvement in quality and safety, and all in the face of finite resources. Few systems can boast the optimal model of medical engagement and yet research (and common sense) shows it to be essential to meet the demands of modern healthcare systems, neatly characterized as volatile, uncertain, complex, and ambiguous (VUCA). Thus, in addition to assisting the medical leader, there is much here to help the nonmedical leader to understand a crucial element of their workforce and how to secure their intellect, knowledge, and energies for the benefit of patients.

In commending this most comprehensive and relevant book to you, I congratulate the authors on their efforts in providing an excellent text that offers so much to so many groups both within Australia and beyond.

Peter Lees
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London, UK

# Acknowledgments

The editors would like to acknowledge and thank the authors for their contribution and efforts in writing their chapters, without whom this book would not have been possible.

Erwin, Paul, and Peter

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# Editors and Contributors

## About the Editors

**Erwin Loh** is the national Chief Medical Officer and Group General Manager of Clinical Governance for St Vincent's Health Australia. Prior to this he was the Chief Medical Officer at Monash Health and the Deputy Chief Medical Officer at the Peter MacCallum Cancer Centre. He is a Barrister and Solicitor of the Supreme Court of Victoria and the High Court of Australia. He has a medical degree from the University of Melbourne and a law degree with honors from Monash University. He also has an MBA, a Master of Health Service Management, and a PhD with his thesis examining doctors in senior hospital management. He is fellow of the Royal Australasian College of Medical Administrators, Australasian College of Health Service Management, Australian Institute of Company Directors, Australian Institute of Management, Chartered Management Institute, and Australasian College of Legal Medicine. He is currently board director of the Monash Health Research Precinct and Australasian College of Legal Medicine (where he is also Vice President). He is an adjunct Clinical Professor at Monash University where he teaches health law and health services management. He is the course coordinator for the clinical leadership and management master's subject for Monash University. He is a member of the consultative council for Clinical Trials Research and is also jurisdictional coordinator of training for the Royal Australasian College of Administrators training program in Victoria. He has been an invited speaker of local and international conferences, published articles and book chapters on health law and medical management, and supervises doctoral students.

**Paul W. Long** is currently the Founding Director, Centre for Health Leadership, Australasia. Paul is an experienced senior health sector consultant and academic specializing in organizational systems and behavior change related to the safety and quality of healthcare systems and service delivery models, specializing in leadership. He is the author of many high profile reports and policy documents as well as articles and academic papers in scientific journals, on systems approaches to improving the safety and quality of health care through cultural change, leadership, and engagement; and he has presented at numerous conferences and other fora on a range of related topics. His textbook on clinical leadership provides a practical guide for tutors, trainees, and practitioners. Paul is an alumnus of Harvard Kennedy School of Government and a Visiting Fellow at the Australian Institute of Health Innovation. Paul is currently undertaking a doctoral research exploring factors that influence and chance medical engagement.

**Peter Spurgeon** is the founder of the Institute for Clinical Leadership at Warwick Medical School, United Kingdom, and a leading authority on medical engagement. He was Director of the Health Services Management Centre at the University of Birmingham prior to joining Warwick Medical School (WMS). Peter was Project Director for five years on the enhancing engagement in medical leadership project, run jointly by the NHS Institute for Innovation and Improvement and the Academy of Medical Royal Colleges. His groundbreaking work to develop the Medical Engagement Scale (MES) provides a reliable and valid method of understanding the relationship between medical engagement and organizational performance. Peter's seminal book *Medical Leadership: From the Dark Side to Centre Stage* provides a comprehensive account of the key aspects of medical leadership. Peter is now a recognized researcher in the Social Science and Systems in Health Unit of the Division of Health Sciences at WMS.

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# Navigating the Zone of Complexity

1

Paul W. Long, Peter Spurgeon, and Erwin Loh

**Learning Objectives**
By the end of this chapter, the learner should be able to understand:

- The relationship between medical engagement and medical leadership.
- The difference between being a leader and leadership.
- The principles of systems leadership.
- How to assess and maintain your leadership capability.

## 1.1 Introduction

Healthcare delivery is complex and ever-changing and, as such, requires staff exercising leadership to be able to address interconnected issues, build coalitions between disparate stakeholders, form intra- and inter-organisational partnerships and networks, and achieve measurable outcomes with and for communities and other stakeholders [1].

To meet this challenge, importantly, contemporary leadership development activity in Australia now reflects the critical importance of collective and innovative approaches to leadership so healthcare organisations can rise to the complex challenges they face over the next 10 years [2, 3].

Recognising this complexity and leading safe and effective care accordingly requires clinicians and managers to lead with expertise, to create and innovate with purpose and have the capacity to adapt and act strategically. In other words, navigate the zone of complexity.

## 1.2 Doctors and Leadership

Increasing the involvement and participation of doctors in the leadership of health organisations has been an ambition pursued by most advance health systems. Darzi [4], Falcone and Satiani [5], Dwyer [6], and Lega and Sartirana [7] represent some specific examples of such advocacy in the literature. The apparent universality of this goal can, however, be misleading in terms of the way in which the goal might best be achieved. Both the differences in culture and the evolution of health systems mean that the role and status of doctors is often quite different. Even within the four countries highlighted above, there are marked differences between the salary levels of doctors, the balance

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E. Loh et al. (eds.), *Textbook of Medical Administration and Leadership*,
https://doi.org/10.1007/978-981-10-5454-9_1

of private versus public provision, and the system arrangements within which services are provided.

Despite these varying historical and system contexts, it is possible to discern some common elements in the challenge of promoting enhanced participation by doctors in the management and leadership of healthcare organisations. As medicine and the medical profession developed, an ever-expanding knowledge base was embodied in the expertise of the doctor. This duty drew an acknowledged status and the growth of other professional roles to support, not challenge, the doctor in the delivery of care. The medical education process tended to reinforce this situation, being highly individualised in its focus, with an emphasis on clinical autonomy and responsibility to the profession and the individual patient. This context pertained for most health systems for many years.

Some key elements of this working environment were captured by Mintzberg [8], who characterised healthcare organisations as professional bureaucracies where the frontline doctors exercise a large measure of control over the content of their work through dint of their training and specialist knowledge. However, the environment in which current healthcare provision exists is markedly different. The level of professional autonomy has been gradually eroded, with increasing external scrutiny and the introduction of more comprehensive performance measures. It is perhaps not too surprising that many professionals have resented what they regard as an encroachment onto their specialist areas of practice. Alongside this change is the recognition that healthcare delivery systems are now much more team-based and complex to manage. Bohmer [9] suggests that while individual doctor excellence is necessary, it is no longer sufficient by itself to generate good patient outcomes. The emergence of this modern work context has not always been smooth, with system managers seeking to control hospital budgets and respond to political priorities, and doctors attempting to maintain the predominance of the patient need against what they regard as unwarranted intrusion into their domain. Some have described this conflict as a battle-zone, to the detriment of both quality and safety of patient care. Understanding the different motivations and perspectives is vital. A failure to do so is dysfunction and can lead to disastrous consequences for patients. The advocates of medical leadership seek to promote a culture of respect and shared responsibility for the benefit of all. As Spurgeon and Clark [10] have documented, organisations that achieve this are likely to be successful.

## 1.3 Medical Leadership

The term leadership is itself often misused and misunderstood. It is typically used without definition and with the assumption that everyone present knows, and agrees, with what is meant by leadership. There are, in part, a huge number of definitions and these are frequently fuelled by stereotypical and historic ideas about leadership [11]. The traditional heroic leader model has largely been recognised as outmoded, and yet many authors still approach leadership by way of a list of positive personal characteristics. But rarely is there any specification of whether all the qualities listed are required to be a leader, to what degree, and in what combination. It is probably helpful to move away from the notion of a leader but rather think of leadership which can be offered by many, but in a great variety of ways depending upon their particular strengths. Spurgeon and Klaber [12] perhaps capture this type of thinking by suggesting that leadership be thought of as a process of influence whereby those subject to it are inspired, motivated or become willing to undertake the tasks necessary to achieve an agreed goal. This definition provides scope for individuals to contribute to the leadership function from different levels within the organisation, and to build upon their particular qualities when relevant to the demands of the situation.

Another issue worthy of comment, and perhaps clarification, is that of the relationship between management and leadership. Is it possible to draw a clear distinction, and indeed what might be the implication of such a separation? Spurgeon and Cragg [13] argue that there is probably a conceptual distinction that can be described. They suggest the basic functions of management—planning,

budgeting, organising, controlling resources and problem solving—are vital for the smooth running of the organisation; without them, anarchy may result. In the past, organisations were smaller and less complex, with nurses, doctors and administrative staff organised into separate hierarchies. However, as healthcare delivery has evolved, the development of how the system is managed has necessarily changed, and like medicine, led to specialisation. In addition to managers with general administrative skills, there are now a myriad of management disciplines including human resources, procurement and IT [14].

These managerial activities, though, are most appropriate when organisations and the society around them are stable and relatively predictable. The constant and continual change occurring in society, and, in particular, the healthcare systems, goes some way to explain why such a premium is placed on leadership. If organisations need to adapt and change to new circumstances, then leaders who challenge, motivate and inspire others towards a new vision are critical. It is possible in many sectors to trace the movement from administrative support roles to the managerialism of the 1980s and 1990s to the current focus on leadership. This, in part, reflects changes in society more widely, and education levels in particular. The administrative support role itself struggles to challenge those it supports, and yet increasingly incumbents are capable of doing so. Managers seek to impose greater efficiency and control on the system, but they too are diminished by trying to cope with turbulent and dynamic environments. Leadership is perhaps the most appropriate concept for rapidly changing situations. Moreover, it seems more acceptable to followers who resent being managed and controlled, and also seems more attractive to doctors who can see leadership roles as appropriate but largely reject the managerial function, not all doctors, of course, the caveat being that doctors acquire the necessary skills to move into the roles such as medical administration.

Although a debate can be had about management and leadership, such a separation typically collapses very quickly in practice. Both sets of skills are essential for effective organisations. Medical administrators will often find that they are making use of either set of skills, perhaps in sequence—for example, the notion of preparing a business plan is usually described as managerial tosh, but selling the concept, maybe to an Executive Board, will need the personal qualities typically associated with leadership. The descriptions attached to transactional management and transformational leadership perhaps best capture the two concepts.

In most large, modern, complex organisations the concept of shared, collective or distributive leadership has come to be accepted as most appropriate [15]. Although there are subtle differences between the terms, the essence of the model is that no single individual can encompass all the skills required in complex, multifaceted organisations. Rather, models that enable the range of skills, expertise and strengths within the organisation to contribute to the leadership function as and when their particular qualities are required, may be more relevant. Sergi et al. [16] have developed the concept of shared leadership further, but sensibly suggest that individuals may need support and development as to how best enact the practice of shared leadership.

## 1.4 Medical Leadership for Medical Engagement

The discussion so far has used the term medical leadership and has referred to doctors participating in the management and leadership of the organisation. Many authors use the term clinical leadership but proceed to talk about doctors, suggesting that the more inclusive term is really about political correctness. This is not in any way to denigrate the contribution of all other clinical professions to effective healthcare, but a recognition that involving doctors in the management process is much more difficult than with other groups—as in the medical profession there is no financial incentive to do so, nor is there any coherent career framework that incorporates the managerial role.

However, despite advocating medical leadership along with many others, there is a developing

viewpoint that medical leadership on its own is not sufficient. Spurgeon and Clarke [10] articulate this argument by pointing to the fact that virtually all health organisations have medical leaders in position such as medical and clinical directors, or service leads, but manifestly, organisations differ in their level of performance. The logic, therefore, suggests that some medical leaders are contributing to successful organisations in a way that others are not. It has been documented that the mechanism by which leadership influences organisational performance is via creating positive, supportive cultures in which individuals can flourish. It is the contention of Spurgeon and Clark [10] that this culture can be characterised as medical engagement. The concept of engagement is seen as a significant component of all successful organisations across a range of sectors. Spurgeon et al. [17] have developed the Medical Engagement Scale (MES) to assess the level of medical engagement in health organisations. This metric assesses the degree to which the medical workforce, not just those in leadership positions, is participating in the shaping and delivery of all aspects of healthcare provision. A full account of the development and use of MES can be found in Spurgeon and Clark [10] and also the continued evidence of the positive relationship between the assessed level of medical engagement and independently assessed organisational performance.

The critical underpinning functions of medical engagement to organisational performance suggests a vital role of medical leaders, and indeed all leaders, is to work towards creating cultures where medical engagement can develop. Approaches to achieving this enhanced level of medical engagement are discussed later in this chapter.

## 1.5 Engaging Doctors in Leadership

There has been much written on the need for medical engagement at various levels within healthcare—at a team or service level; organisational level; professional subgroup or special interest group level [1, 18, 19]. From this material, it is clear that 'medical engagement' is a complex technical, socio-political and motivational issue spanning the relevant multiple professional subcultures, that is underpinned by: a series of interrelated factors associated with organisational context; the design of the improvement activity; and how these factors are promoted [20, 21].

Where to begin the 'engagement' differs dependent on the context of the practitioner, whether student or senior consultant specialist. What is clear is that the introduction to leadership concepts early in the development of all clinicians and then subsequently as their service career progresses is considered important and captures the widespread viewpoint that early introduction normalises the material such that clinical professionals are encouraged to see such activities as an inherent part of their role, rather than something to which they are introduced later in their careers [22–25].

Without medical engagement at a collective level and the individual alignment of doctors, there is no meaningful way to influence variations in practice or care [26].

The exercise of clinical autonomy is a crucial part of the application of knowledge acquired by doctors throughout their medical training. Trying to achieve congruence between the individualistic nature of clinical practice and professionalism and the broader needs of organisations and the people that run them is an inevitable source of tension and potential conflict. This could explain why there are so few, if any, examples of exemplar medical engagement where doctors are involved at all levels.

Recent research involving doctors working in Queensland found that different specialists who share the same value at the macro level of the profession may interpret the profession's value differently in their everyday work at the micro level, inside organisations. In essence, the profession's value becomes 'refracted' for different specialists as the value travels from macro to micro levels [27]. Values refraction creates the potential for conflict in the day-to-day interface between specialists inside organisations. Challenge is created by the potential for practices inside organisations, which are designed to meet

organisational requirements such as resource efficiency, but which inadvertently undermine the espoused values of the professionals [28]. This can lead to conflict between professional values and organisational practices. For example, 'it's all about money these days,' 'good patient care no longer a priority.'

In the UK, Spurgeon et al. suggest that to understand the current strategies around medical leadership and engagement, it is important to have an appreciation of the ways in which doctors have been involved in management, leadership and transformation of services. This journey can be described as a movement from domination through a period of disenfranchisement to one where they now are generally representative [29]. Whereas in the past management and leadership were frequently viewed or spoken about in less positive terms or even dismissed, the medical profession is now positively espousing the importance of doctors assuming leadership roles at all levels [29], illustrated by the joint development, agreement and publication of a medical leadership competency framework (MLCF) by all the royal medical colleges in the UK (NHS Institute for Innovation and Improvement and Academy of Medical Royal Colleges, 2010) and endorsement General Medical Council (GMC), the regulatory body which sets standards of medical practice. In February 2012, the GMC updated its guidance on leadership and management for all doctors [30]. The new guidance advocates the importance of leadership to all doctors and replaces an earlier document that had placed an emphasis on those doctors in positions of management. The 2012 policy document is congruent with a number of other changes in regulatory standards for nurses, dentists and pharmacists. These changes reflect a cultural move away from a historical hierarchical and positional definition of leadership in medicine and the clinical professions to one which is not restricted to people who hold designated leadership roles. In these new ways of working, every healthcare professional works within a team, sometimes taking the lead and sometimes following others as they take the lead [22, 31].

In the UK, there have been many well-documented studies, reviews and reports detailing issues pertaining to medical engagement. This could explain why there is a concerted effort to drive medical leadership there and the aim is supported by many of the leading players and, importantly, at the highest levels of the system [32]. Despite this effort, or because of it, there are few exemplar organisations cited. However, the University College London (UCL) Hospital NHS Foundation Trust has been held out as an example of a managerial culture where medical leaders are consulted and supported, with clear expectations of the performance [18].

Elsewhere internationally there are exemplar organisations where doctors are involved at all levels of the organisation and in key decision-making. In the USA, for example, Kaiser Permanente, the Mayo Clinic and Intermountain Healthcare are often mentioned in the literature as examples of organisations where there is a prevailing culture of involving doctors in decision-making at all levels. Intermountain Healthcare makes clear that doctors can override procedures or targets when it is in the best interest of the patients [18].

Within Australia, there have been major nationally funded improvement initiatives, as well as numerous state based activities, aimed at getting clinicians, notably doctors, to play a lead role in the design, delivery and evaluation of healthcare. For example, the National Demonstration Hospital Projects, which focused on specific issues—elective surgery, bed management and coordinated care across the acute, primary and community sectors [33].

Perhaps the more relevant to *leadership* is the Royal Australasian College of Physicians initiative, the Clinical Support Systems Program (CSSP), funded by the Commonwealth Department of Health and Ageing, which was at that time the largest and most complex project of its kind undertaken in Australia [34].

The stated aim of the CSSP was to test whether doctor leaders, not necessarily medical managers, can improve the quality of care by managing clinical practice in a continuous quality improvement cycle and applying the best available evidence to this process [35]. However, unlike previous initiatives aimed at implementing or testing a new

model of care, the project's brief was to implement changes within the existing structures and processes of care provision, how care is provided, and within the prevailing culture—the attitudes, values, knowledge and norms associated with care provision that were necessary for evidence-based clinical care for their nominated patient group. These changes would, it was reasoned, contribute in turn to improvements in the efficiency and effectiveness of healthcare provision, and in clinical care and outcomes for patients. The external evaluation of the programme found that the CSSP created a learning laboratory for its participants and contributed to an increased system capacity to improve healthcare [34].

## 1.6 The Case of Australian Doctors and Their Role in the Leadership and Management of Health Services

In Australia, engagement of the medical workforce is recognised as a crucial factor in responding to changes in the context of health services and the broader environment. Current pathways for doctors into management and leadership roles are relatively ad hoc and poorly understood. Australia currently lags behind other countries in its heedfulness to, and evidence-base for, effective medical engagement [25].

A recent research project sought to investigate issues of medical engagement in the context of Australian health services [25].

The research found that there is no single route into leadership and management opportunities and no clear or consistent career pathway across healthcare organisations for doctors interested in becoming engaged in formalised governance roles. Those interviewed described having taken on roles often with little preparation or training and experiencing a significant learning curve. A range of different training and development opportunities had been accessed by respondents, resulting in very different experiences and levels of preparedness for medical management and leadership roles.

In terms of why doctors seek out opportunities to engage with leadership and management roles, Dickinson et al. found that there are far more intrinsic than extrinsic motivators—meaning that doctors sought out these roles due to a desire to make a difference, rather than because they are supported by the system or are a way of achieving significant recognition. In fact, the opposite was often true, with these roles being associated with lower earning potential and being perceived as of low status by medical colleagues. Doctors also reported being attracted to these roles due to the changing nature of the medical profession and the fact that they are expected to work for far longer periods than has been the case in the past [25].

By and large medical management and leadership roles were described as difficult and often lonely as individuals fall between medical and management communities. The demands on time and abilities are significant and roles often lack the necessary levers to bring about desired changes or influence on colleagues and their practice. What seems clear from the data is that if more effective medical engagement in leadership and management roles is to be encouraged there needs to be some significant changes to the practices and process that underpin these [25].

## 1.7 What Kind of Medical Leadership?

Unlike in the UK, where the Royal Colleges and the regulator have all agreed on a definition of leadership, there is no such consensus in Australia. The answer to this perennial question then is that the type of and style of leadership necessary for doctors really depends on the context and situation in which they work. What is agreed is that leadership action normally requires the influencing and mobilising of others to work together to achieve some stated goal or objective.

Some of types of leadership behaviours can be jarring because they require different attitudes and behaviours than that traditionally acquired by doctors in their training.

One such concept is that of servant leadership [36], which is aligned with other modern

leadership frameworks, such as Bernard Bass' Transformational Leadership model [37], where the leader seeks to influence, inspire and provide individualised consideration of followers. Servant leadership is built on a network of relationships with friends, supporters and associates, as opposed to traditional feudal leaders, who tend to create a charmed circle of closed confidants with exclusive members, and followers outside. As such, servant leadership is in line with current leadership models that are based on loose hierarchies but strong networks. The servant leader, in order to lead, is therefore required to listen to a network of contributors, and builds consensus through transparency, diversity and openness.

Also, servant leadership fits with current models around followership [38]. In the traditional, unilateral leadership model, the leader has multiple followers, which suit the predictable, linear operating context, where the leader is the expert, and the followers are novice, leading to a hierarchical structure, where followers adopt a predetermined, passive role. However, in the health system, volatility, uncertainty, complexity and ambiguity (VUCA) [39] is more the norm, requiring a dynamic, two-way leadership relationship, where you have both expert leaders and expert followers in a strong network, where the role of the leader and follower interchanges, regulated by talent and context.

Although we know that the quality of the interaction can vary widely, in simple terms, clinicians all work in an environment where the health leader defers to clinical expertise as required, and the clinician consults the professional manager in turn.

## 1.8 Systems Leadership

There is mounting recognition healthcare is increasingly complex. Attempts to make the system run smoother and faster will be countered by rising health consumer expectations, constrained budgets, and demands to keep pace with new technology. Despite the dramatic changes in society, technology and disease profile of the population, the Australian hospital-based health system remains stuck in nineteenth century traditional models of care that are provider-centric which is not sustainable, efficient or accessible.

Short term, technical solutions to health service delivery problems will, at best, support the status quo but they lack the power to really transform the future.

Complex adaptive systems (CAS) such as healthcare are characterised by continuing self-organisation with ill-defined boundaries involving a large number of non-linear interactions and multiple feedback loops. Clinicians working in such an environment can find it challenging to navigate because the public health system is traditionally risk-averse and burdened with perceived bureaucracy and regulation.

The systems leadership principles draw upon the below conceptual frameworks which have been practiced extensively in other sectors to address complex systems and wicked problems but have not as yet been widely adopted in public healthcare in Australia.

- Complexity science for systems change.
- Human centred design.
- Adult education.

This conceptual and theoretical frame is particularly relevant to the challenges facing senior medical clinicians in the healthcare context.

As clinicians progress in their profession they are required to expand their leadership practice due to the emerging roles and responsibilities, for example, leading change, mentoring and training, and participating in organisational management tasks and forums. At the same time they are required to maintain commitment to their clinical duty of providing compassionate safe and quality treatment to patients. The situation becomes 'bigger' and even more dynamic. This demands a deeper understanding of the type of leadership that supports personal and service effectiveness.

Recognising this complexity and leading safe and effective care accordingly requires clinicians and managers to lead with expertise, to create and innovate with purpose and have the capacity to adapt and act strategically (Fig. 1.1).

Spurgeon et al. [29] suggest there are two particular contextual issues that seem to make the

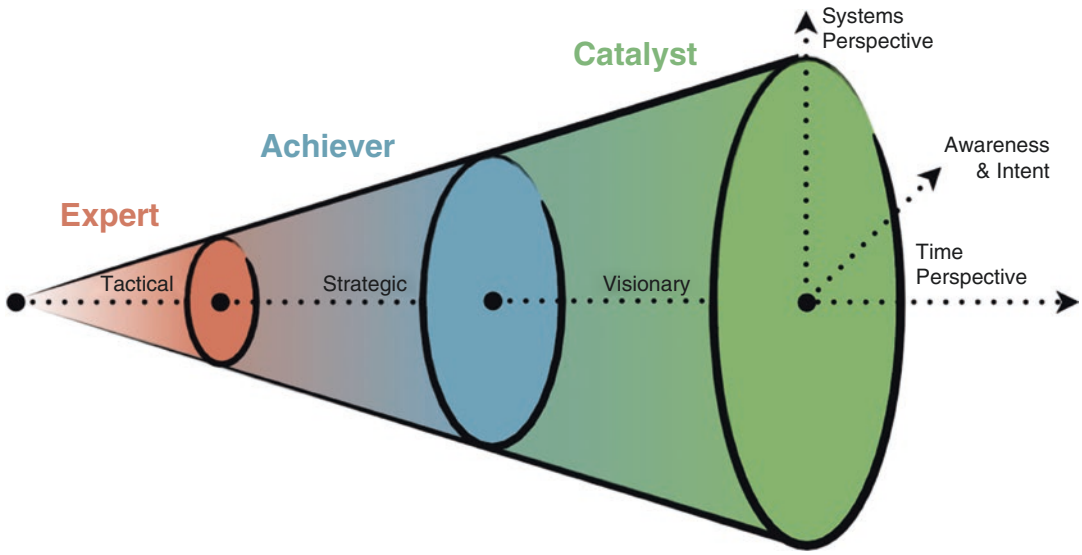


**Fig. 1.1** Moving beyond expertise and achievement to catalyst action (Adapted from Joiner B, Josephs S. Leadership Agility: Five Levels of Mastery for Anticipating and Initiating Change. Josey-Boss A Wiley Imprint, San Francisco, US, 2007, with permission)

notion of system leadership quite challenging. In contrast to clinicians, many key professionals in non-clinical sectors have had less difficulty in integrating their role within the constraints of a managed system. For example, architects and engineers, despite normal frustrations and differing viewpoints, recognise the interactive dynamic and constraints in which they work. Many professional groups work in a collective system, whereas doctors are largely delivering a highly personalised, individually based service. Spurgeon et al. go onto to posit that as doctors, patients and the public have something akin to an implicit contract that the individual transaction around care shall remain the predominant characteristic of health systems [29]. Anything that impinges upon this relationship tends to be resented and this perspective tends to be the way doctors view managers and management [29].

A critical cultural challenge, then, is to overcome this quite widely held view and build an approach that recognises the wider system context but without the detriment of the crucial patient-doctor relationship [29].

The second and related issue made by Spurgeon and his colleagues is that of clinical autonomy. As concern by the public, politicians and policy makers about the rising cost of healthcare and its quality increases and demands greater accountability grow, doctors can view this as constraining the way they work, and thereby impacting on their clinical autonomy and their professional values.

Beyond the day-to-day activity in which all staff are engaged and exercising leadership, the idea that important staff groups, such as managers and clinicians, notably doctors, must also be adaptive leaders is now gaining momentum, especially in Australia [40]. Adaptive leadership is especially relevant to systems leadership where there is greater complexity, and innovation and improvement are required. The level of the complexity is a relevant factor, with greater complexity leading to more use of certain aspects of leadership, such as anticipating change and being ready to adapt to altering, unpredictable circumstances. This is particularly associated with sustainable improvement and tangible impact [40].

The increasing drive for more adaptive leadership stems from the recognition that leadership development activity has sometimes been directed more at solving problems and acquiring new skills, abilities or behaviours, and less

at the systems in which people work. These are aimed more at the development of the person known as vertical learning. Vertical development refers to the stages that people progress through. Researchers have shown that people at higher levels of development perform better in complex environments.

The focus of systems leadership learning should therefore be at the boundary between order and chaos or order and complexity [41]. Taking a systems approach forces learners to go beyond the simple, uni-causal, structural and mechanical cause-and-effect view of problem solving, which is limited and out-dated [14]. It also requires a commitment by health leaders to working across organisational and professional boundaries and silos, which traditionally separate clinicians, administrators, government bodies, users and other stakeholders.

This raises questions about the capacity of the learning and development specialists to shift from creating programmes to becoming the 'social facilitators' of a process that involves stakeholders at all levels of the system. The promotion of opportunities for all the players to actively participate is a factor. Leadership programmes will need to take account of providing opportunity for learners through professional socialisation [42].

## 1.9 Learning and Continuous Professional Development for Medical Leadership

Leadership requires clinicians to continually develop and to respond appropriately to the many different situations and circumstances they face throughout their careers.

Knowing their leadership qualities allows clinicians to grow their potential, regardless of what that potential is. Just as musicians, athletes or actors can develop their innate talent, so can doctors. They just need to know what that talent is and develop it.

Contemporary leadership practice now involves dynamic learning methods which create *learning environments* where learners interact with each other, supported by skilled facilitators, coaches and experts in executive and leadership development. This move away from traditional classroom teaching is increasingly team based, and grounded in the learner's organisation.

The principles for effective medical leadership development start with real-life experience and the creation of a work environment that is conducive to learning and development [41]. Tasks that are complex and ambiguous serve to enhance development. Work assignments that are constantly changing and are unpredictable provide challenging opportunities for new and innovative solutions [43].

Experiential content will include research, theory and applied practice from the relevant fields. Such methods increase ownership and also foster a learning culture within the organisation [44].

Rather than being *content heavy*, leadership programmes that seek to promote adaptive behaviour should aim to do so through supporting self-learning and development, leading to original thinking, ideas generation and innovation. Programme designers will need to create a learning space where a participant's capability and capacity is increased rather than one where an issue or problem is addressed or solved. Content should therefore focus on activities that cause participants to re-orient some long-held and value-laden views and to learn new language, emphasis and interpretation to gain an understanding the perspective of the other parties.

This process is likely to involve conflict as the participants represent their *traditional and comfortable* roles. It takes time, effort and commitment to develop mutual understanding. Through this process of *disequilibrium*, new ways of working will emerge by creating shared and common values and purpose—leading to the collaboration, alliances and interconnectedness which are vital to systems leadership [45].

## 1.10 Use of Dynamic Learning Environments and Professional Socialisation

More 'dynamic' methods are now being used to create 'learning environments' where participants determine and set their own development goals and agree on the outcome. Doctors are expected

to use a co-design and co-creation approach working initially with small groups, wherein stakeholders are encouraged and supported finding a way to achieve a goal. This process of 'discovery' > 'diagnosis' > 'intervention' > action, cycles involves tools observation, interpretation, reflection. It mirrors clinical training but is focused on the system in which care is delivered rather than the clinical care. Data generated will be progressively shared with the group, then wider groups of stakeholders using a narrative technique.

Creating environments for colleagues that promote the opportunity for them to develop and learn is crucial. For leaders handling complex improvement challenges, a popular learning method used widely in the NHS and now becoming so in Australia involves a group of people, usually peers with similar roles or levels of responsibilities, meeting regularly over a set period of time, normally 12–15 months. The group known as a set contract with each other to meet 5 or 6 times through this period and agree to follow established ground rules to participate in a facilitated discussion involving reflected learning and action. An action learning set (ALS) can be in-house with peers from the organisation or a cross sector set for leaders which brings together top level staff from different sectors and professional backgrounds [46]. Action Learning Sets (ALS) can use a trained facilitator or may choose to facilitate the process themselves.

A process, which is suited to all career stages, is working in triads or triangles. Involving three people, the triad or triangle, comes together to choose when, where and how to meet and learn; and what to learn and practice [47]. This can involve:

- Self-coaching
- Peer coaching
- Using the resources as a mentor/coach
- Team development
- Resources to build programmes from
- A whole system approach to tap into the collective intelligence of a community of learners

More junior staff will benefit from spending time working with and learning from their managers. One example of this at Imperial College Healthcare NHS Trust in London [48] is called 'paired learning' which has been shown to have significant benefits for patients and to lead to powerful personal learning. This approach, based on a *buddy system*, enabled the trainee and the manager to work together to support and learn from each other. While doing so, they gained experience of their colleague's expertise and insight into the other's perspective [48].

Coaching has emerged as a key tool and process for leadership development [14]. Coaching usually involves two or more people who consent to participate in a dynamic interaction resulting in positive behaviour change.

The 2004 Chartered Institute for Professional Development training and development survey shows that four-fifths of respondents now use coaching in their organisations as a tool that can help businesses to be competitive, as well as help people attain their potential [49]. Workplace coaching is frequently used to help executives develop their capacity to deal with change and to give them support in reaching their organisational or work-related goals [50].

The research on coaching is growing, though much of the literature tends to be qualitative with little quantitative data showing benefit. Although this suggests that coaching can be effective, there is some literature suggesting it may also be a fad. There is also concern about a number of 'cowboy' coaches entering the market who are inexperienced, have little training, lack the appropriate knowledge and skills, and without proper training, can do more harm than good [51]. Part of the problem lies in the fact that the coaching industry is highly fragmented, with no single professional body or sets of standards and qualifications to guide buyers of coaching services [49].

There are many different theoretical approaches to coaching, differing philosophies, styles, methods, techniques and types, including 'self-coaching.' Looking across the material reviewed it appears that effective coaching occurs when the person being coached, called the coachee or client, gains insights about themselves, their environment and how they relate

to others, and as a result, initiates some sort of action, such as learning or development [44].

One of the world's then largest health authorities, NHS London, offered a leadership development mentoring programme that focuses on developing clinicians who have the potential to become future leaders of high quality healthcare within London. It aims to support clinicians to progress to GP and Consultant positions with significant trust or strategic level management and leadership responsibilities. Participants are assigned a mentor, who is a senior healthcare leader from the NHS, associated organisations or the private sector. Mentors are selected on the basis of their achievements and their interest in supporting others' development. Mentoring provides an excellent opportunity to work in a confidential way with a senior leader who is not in line manager. It offers new insights and experiences and can help raise an individual's personal and professional profile. Participants spend time shadowing their mentor, working with them on small projects or attending events and networking opportunities. There are also several seminars or workshops throughout the year where guest speakers share their experience of leadership in the NHS. These are combined with action learning sets and participation in an interactive leadership course focused on managing the politics of the healthcare landscape and developing the influencing skills required to lead across it [48].

Queensland Health has initiated an innovative experiential learning approach for leaders. One interesting component used an applied theatre method to deliver a 'drama-based' interactive case study, based on common real-life experience of the participants. The learners could see how the future can be corrected or transformed through interventions and actions [52].

Such methods avoid dictating how to change practice, which could cause doctors to disengage. By encouraging and facilitating debate, and empowering participants to exchange ideas and opinions, ownership and working across traditional professional boundaries can be increased. The process of professional socialisation where the participants become social facilitators can create and foster a learning culture within the organisation [14, 34]. Innovative methods such as virtual debates via online forums have also been shown to be successful [53].

## 1.11 Assessing Your Leadership

Clinicians show leadership through developing self-awareness and managing themselves. Being aware of your own values, principles and assumptions and by being able to learn from experiences is core to your professional values.

Sometimes they will be called upon to model the desired behaviours and values of patient-centred leadership, often when the energy or will of others is flagging. To do this, clinicians need to be aware of what motivates them and how to adjust their behaviour in the presence of others. Finding reasons to hope, to be optimistic about the collective future, and to motivate ourselves to pursue that future requires resilience, courage, and commitment. Ultimately, each of us is responsible for our own performance and contribution to our organisation's service agreements.

Actively seeking personal growth implies that clinicians need to know how to assess it. Staff appraisals, self-assessment and performance management are increasingly common-place in the workplace. Being open to feedback from colleagues, patients, their family and carers is an excellent way to continuously assess your own leadership behaviours. Clearly the way in which it is given will vary greatly and is dependent on the skill of the person giving the feedback. It is impossible to control this aspect of feedback. Despite such situations making you feeling uncomfortable, and vulnerable the feedback poses potential for reflection and learning that is invaluable.

There are also many tools and methods for assessing leadership behaviours. These could be for emotional intelligence, authenticity, values, strengths, personality, team effectiveness, competence, capability and so on. The key point to remember when choosing a tool is context. What is the desired objective and outcome? Due to the large number and array of such tools it is critical to ensure it is validated and grounded in evidence.

### 1.11.1 Self-Assessment

A very simple and accessible method would be to use a tool which enables you to assess your own leadership behaviour and identify where there leadership strengths and developments needs lie. These usually consist of a short questionnaire using a Likert scale to rate and score leadership behaviours how often a statement applies to you. Users can then tally up their scores to identify leadership behaviours that may be under or overplayed, thus allowing them to manage their own learning and development by allowing reflection on which areas of the leadership they would like to develop further [44].

Having completed the self-assessment, we would encourage individuals to discuss their results with their line manager, mentor or trusted colleague. Individuals may find it helpful to ask their line manager or colleagues to also use the same tool document and rate the individual against some or all of the leadership domains. Coming together and comparing the ratings with the individual's self-ratings can provide valuable insight into their leadership behaviour. For example, students or colleagues working in pairs, then three, then small groups may rate themselves and each other to facilitate a learning experience using the self-assessment tool [44].

### 1.11.2 Structured Multi-Directional Feedback

360° feedback is a powerful tool to help individuals identify where their leadership strengths and development needs lie. The process includes getting confidential feedback from line managers, peers and direct reports. As a result, it gives an individual an insight into other people's perceptions of their leadership abilities and behaviour [44].

The 360 technique involves the systematic collection of performance data on an individual, gathered from a variety of sources called raters. The raters normally include the participant's line manager, peers and direct reports. It can also involve others individuals, who may not be peers or direct reports, but who are people the participant still works closely with, or colleagues from other organisations. The choice of raters in any particular case tends to include those who have had enough regular contact with the participant to be able to observe and assess his/her behaviours at work. Because each rater provides a different perspective on the participant's skills and abilities, the resulting appraisal provides a well-rounded and complete picture of the participant and his/ her strengths and weaknesses in assessed areas [44].

The 360 technique is always confidential and it is recommended to use a minimum of three raters, so that their anonymity can be assured and that they can feel to provide open and honest observations. In industry, 360 feedback can be undertaken by simply emailing colleagues and asking them to send feedback or observations about an individual to their line manager. It is recommended to use a more structured tool where the data is collected using an online process, where a written report on the raters' collated observations is provided to the participant as part of a feedback session by a qualified facilitator, which can be linked to your College or workplace personal action plan, to help individuals consolidate their development areas [44].

## 1.12 Reflections and Things to Try

In this chapter you learned:

- How leadership has developed in medicine in Australia and in the United Kingdom.
- The important role doctors play as leaders in managing the health system.
- New ways of developing your leadership capability.
- Different tools and methods for assessing your leadership.

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# Medical Leaders and Management

2

Johannes Stoelwinder

**Learning Objectives**
In this chapter the reader will learn about:

- Modern organizational theory and the need for management.
- Doctors as leaders and managers.
- The role of doctors in driving change.
- Inter-professional collaboration.

## 2.1 Introduction

In this chapter we will consider management—the process of control and coordination of activities and resources, people, material and financial, in an organization to achieve the organization's purpose—and managers, the people who perform this process. Managers manage within the context of organizations, so we will first explore the function and structure of organizations.

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## 2.2 Content

### 2.2.1 Organizations and the Need for Management

Organizations, a group of people structured to achieve a purpose, have been present in recorded history since the irrigation of agricultural land in Mesopotamia. There have long been organizations of the state, military, government bureaucracy and even chartered companies. Organizations may be owned by individuals or families or by groups of individuals in the form of *partnerships*. Modern companies, as formal entities, have their roots in the invention of the joint-stock company, with tradable shares, in the early seventeenth century with the establishment of the Dutch East India Company and the Amsterdam Stock Exchange. The expansion of this form of organization was enabled by the *Joint Stock Companies Act 1844* in the United Kingdom and equivalent incorporation acts in other countries. Through these Acts the state vested the organization with legal entity, separate from the providers of the required capital, whose liability was thus limited. Access to capital facilitated by this configuration has been the main driver of the growth of the economy since. As organizations grow in size or have a shareholder ownership, a professional management is appointed, responsible


E. Loh et al. (eds.), *Textbook of Medical Administration and Leadership*,
https://doi.org/10.1007/978-981-10-5454-9_2

for the conduct of the organization, with a partition between the role of the owners and that of management.

In health care, organizations may be owned by government or incorporated under specific government controlled business enterprise Acts, for example, the *Victorian Health Services Act 1988* [1]. We describe these as the *public sector*. The *private sector* consists of organizations, privately owned companies and partnerships incorporated under a Companies' or Corporations Act, being either *for-profit* or *not-for-profit.* Some not-for-profit organizations and *non-governmental organizations (NGO)* are incorporated under an Associations Incorporation Act. In all cases, through incorporation, organizations become legal entities operating within a set of governance regulations.

Whatever the ownership arrangements are, there are a general set of relationships between the owner, be they state, shareholders, or individuals, and the managers of the organization. These include:

- The owner sets the purpose of the organization. It is the organization's mandate that may be formalized in by-laws or articles of association. This will include governance rules and the functions or business activities the organization will engage in.
- The owner appoints a board of directors to ensure the mandate is followed and the purpose achieved. While the board is accountable to the owner, its duties are also prescribed in the relevant statute under which the organization is incorporated and in other laws of the state (e.g. consumer protection, competition, environment and others). The organization is thus accountable to both owners known as shareholders and stakeholders which will include government, legal system, community at large, customers and employees.
- The board of directors, as the owner's agent, sets the strategy for the organization, the resources and pathway needed to achieve the organization's purpose and appoints and monitors the senior manager(s) to deliver the strategy. A key challenge is to ensure that the interests of the managers coincide with those of the board acting for the owner (referred to as the principle). This is referred to as the *principle-agent problem*.
- The chief senior manager, commonly known as the Chief Executive Officer (CEO), appoints other managers and delegates responsibilities and authorities within an organizational structure to manage its conduct.

Through these steps the role of managers and the process of management are established.

### 2.2.2 The Evolution of Theories of Organizations

Modern organizational theory has its roots in the analysis of organizations of the Industrial Revolution, with key writers such as Adam Smith in *The Wealth of Nations* (1776) who articulated the importance of division of labour and associated specialization, and Max Weber who described, in *Economy and Society* (1922), the concepts of bureaucracy and hierarchy.

The development of the factory system of production and the role of engineers in their design and management led to the school of Scientific Management, notably by Fredrick Taylor in his book *The Principles of Scientific Management* (1911). It focused on finding the most efficient way of performing each task in the production process and rewarding employees for exceeding efficient quotas of work.

Modern trade unions developed in the mid-1880s, partly in response to the impact of Scientific Management on working conditions and they, together with the development of the general social reform movement, led to the Human Relations school. This focused on the human side of the workforce, rather than the technical orientation of Scientific Management, with key works by Mary Follett such as the democracy at work (1924), Elton Mayo, of the Hawthorne experiment (and effect) fame, an Adelaide boy who made good at Harvard (1933), followed by writers such as Fredrick Herzberg's job enrichment and motivator-hygiene factors (1959) and

Douglas McGregor's Theory X and Theory Y of human motivation in 1960.

The integration of these two foci, one the technology associated with performing tasks and the other on human relations of the workforce, emerged as Socio-technical theory, developed in the Tavistock Institute in London after the Second World War by organization psychologist Eric Trist and the Australian, Fred Emery, in 1960. It seeks to design and manage organizations so that the technical system and the social systems are jointly optimized.

Socio-technical theory is just one example of applying systems theory to organizations. Others include Kurt Lewin into the study of groups, change management and 'sensitivity training' (1940) and Edgar Schein into group processes and organizational culture in the 1980s.

Modern writers who carry this torch include Peter Senge *The Fifth Discipline: The Art and Practice of the Learning Organization* (1990) focusing on group problem solving, the many writers who invoke *chaos theory*, although usually as a metaphor as mostly they are referring to complex systems, and the quality improvement theorists such as W.E. Deming and J.M. Juran, the progenitors of Continuous Improvement, The Toyota Production System and its ultimate, Lean.

Economic theories have also overlapped with organization theories, particularly systems theory, starting with the Nobel Prize winner Herbert Simon in the 1950s who considered decision-making in uncertainty in organizational settings, elaborated by Richard Cyert and James March and extended by theorists such as James Thomson, Paul Lawrence and Jay Lorsch and Jay Galbraith. Recent theories in this vein include the principle-agent problem. Managers possess more information than owners and this may lead to conflicts of interest and moral hazard, with managers pursuing their own agendas rather than that of the owner principle. This raises issues of the design of employment contracts and performance schemes. Another is the work of Oliver Williamson on transaction costs that gives theoretical underpinning to issues such as outsourcing and purchaser or provider split.

If you are interested and take the time to read some of these works, you will come to appreciate that organization and management theory generally has a very poor evidence base, in the way evidence is considered in clinical practice. Organizations are not amenable to prospective experimental design, let alone randomization! As a result most writing is entirely theoretical or based on observational studies, seeking to identify characteristics associated with current business success. In these circumstances fads and gurus abound. That said, organizational theories can aid the manager in reflective practice and as a source of ideas and inspiration. Learning the language of 'management' is vital. As with medicine, colleagues who call themselves managers use a language to give themselves status and a doctor is more likely to be successful if they understand different perspectives and approaches being advocated by their colleagues.

### 2.2.3 A Theoretical Framework for a Health Care Organization

The theoretical framework used in this chapter is based on systems theory and incorporates the principles of Socio-technical theory. It envisages the organization as a system with a structure and process for transforming inputs into outputs, referred to as a transformation system. This has the following components:

- Inputs including raw materials, labour, money and similar.
- Process including the tasks that are performed to transform inputs into outputs.
- Structure being the social configuration and organization of people to perform the tasks.
- Outputs, or the products or services produced by the organization.
- The organization receives inputs from, delivers outputs to, and receives feedback from the environment and is thus considered an open system.
- Owners of the organization who provide the capital funding to enable the organization to function. They mandate the board of director to govern the organization, as described above.

The starting point, then, of an understanding of health care organizations is—who is the owner and what mandate have they set?

In the case of a public hospital, if established many years ago, it will likely have been initiated by a community group with a mandate to provide hospital care for the poor in their locality. Those in the community who paid an annual fee for membership of the hospital, known as subscribers, would have elected the hospital's Board, which in turn would have appointed the Matron and the Secretary, as the principle officers, and together they would have been responsible for the control and governance of the hospital. Doctors provided honorary services, as a community service, but also to develop referral and colleague networks and status. They were not employees and thus not subject to the control of the management. Medical staff membership of the governing Board was typical.

As health care technology developed and the cost of operating the public hospital escalated, governments were progressively required to play a larger role in their funding. As a result, through incremental changes to legislation over the years, it became the owner of public hospitals in the Australian system. New public hospitals are now simply established by the Government. The legislative changes finally eliminating subscribers in public hospitals in Victoria occurred only in the late 1980s. In other States and Territories governments have been in direct control of their public hospitals at earlier stages and have generally centralized public hospitals as sub-units of their respective health departments. In these cases Boards of Management have been eliminated and CEO report directly to the Head or a senior officer of the health department. Recent reforms have re-focused attention on this governance structure and recommended a return to local governance through Local Hospital Networks or Districts, run by local Boards with clinical representation. The expressed purpose of this proposal was to improve clinical engagement, but it is interesting to note that in negotiations with the States this structure was modified so that clinicians on Boards could not be staff of that particular Local Hospital Network. Whether in a centralized or decentralized structure, health departments ensure control over their owned health services through control of appointment of board directors and CEOs.

Other countries vary in their level of direct Government ownership of hospitals. In the UK, an example of a vertically integrated government health system, voluntary local hospitals were brought under direct Government control with the formation of the NHS in 1948. In NHS reforms since 1992 a level of local autonomy has been restored, first with the purchaser and provider split and more recently with the establishment of Trust hospitals. In the United States, an example of a market-based health system, many hospitals retain local voluntary ownership, or have been merged into for-profit or not-for-profit chains with a contractual relationship with payers or directly with patients. Hospitals in The Netherlands, an example of a social insurance health system, are independent community not-for-profit organizations, or, in the case of the ten academic medical centres, owned by the universities with medical schools.

A not-for-profit private hospital is typically owned by a religious organization that sets its mandate to include social and religious obligations, as well as hospital care. Although the mandate does not usually include not-for-profit maximization, they will still expect a positive bottom line to provide capital for the future. The religious organization also appoints members to the governance structure, usually a Board, and allocates capital for projects as required. Most for-profit private hospitals have been consolidated into chains. Shareholders or private equity firms who seek a financial return on the equity capital they have provided may own these companies. The Boards of these companies are elected by the shareholders or appointed by private owners to deliver on this mandate. If this mandate is not delivered shareholders can respond by changing the Board and or the CEO, or sell their shares and move their capital into other companies offering the prospect of a better return.

You will notice that the key differences between these ownership arrangements are their mandate and their capital structure. The latter

epitomizes ownership. Private for-profit hospitals have access to private capital on which they must make an investment return. Private not-for-profit access capital via their parent body and need generally to return a cost of capital, which may be zero if the capital is sourced from donations. Public hospitals operate as large multidivisional form in which capital is allocated centrally. The return they are required to deliver is usually of a political nature as capital allocation is a political consideration within the context of Government budget processes.

While these three different ownership arrangements result in different mandates, the hospitals are all in the business of providing hospital care. The inputs are common: money to purchase supplies, medical equipment, drugs and pay salaries. The process of patient care is similar although the structure may vary slightly, particularly in respect of the medical staff. The latter is usually more independent in private hospitals and this will have an impact on how resources are controlled and patient care processes, including safety and quality, are supervised. The outputs are similar.

By considering each of these elements of an organization we can describe their similarity and differences and understand some of their respective management challenges.

To really understand an organization we need to understand both the technical and social systems and how they interact. This consideration is especially important in health care organizations as they incorporate particular problematic features in both their technical and social systems—issues we consider when we turn our attention to clinical management later in this chapter. First we will consider the role of the manager in organizations and the relationship between leaders and managers, then we will review the extra dimensions of clinical management.

### 2.2.4 Leaders and Managers

What's in a word?

Much is made in management textbooks about the differences between 'management' and 'leadership'. In public sector health care, 'administration' is a term also bandied about. What do these words mean and what is their relevance to health care management?

In its 2011 report on the future of leadership and management in the NHS, the Kings Fund stated that management matters. Without it, nothing happens. From deciding on and buying the weekly grocery shop to designing, building and running the giant atom-smasher at Cern, nothing effective happens without budgeting, scheduling and implementation [2].

Beyond that, in any organization of any size someone—and in a half-decent-sized organization some people—have to provide leadership: setting priorities and a direction of travel, or, in the jargon, deciding the organization's vision and strategy and engaging staff [2].

In addition, an organization with good leadership and management will get nowhere without administration, the gritty day-to-day filling-in of forms, ticking of boxes, settling of invoices, issuing of payment notices, providing data to regulators [2].

There is no clear-cut distinction between these three roles. Without leadership there can be no effective management—because the organization will not know what it is meant to be doing—and without good administration management can be rendered ineffective. The three are interdependent [2].

### 2.2.5 Theories of Leadership

There are many theories of leadership. So many, one can argue, that a lack of an agreed paradigm of leadership reflects a failure of any one of them to have credibility. In a review of publications on leadership theory in the 10 top-tier management journals from 2000 to 2012 J.E. Dinh et al. identified 752 leadership research articles, which they were able to classify into 63 theories in 17 categories! The popularity of any one theory does not necessarily reflect its veracity, perhaps more the productivity of its proponents or the newness of its conceptualization. Of the 63 theories, the most numerous publications were on Transformational leadership, followed by Trait theory, Leader-member exchange (LMX) and Leadership teams [3].

- Transformational leadership has four dimensions: charisma, inspirational motivation, intellectual stimulation and individual consideration. It involves an effect on followers based on trust and respect of the leader, thus motivating them to perform.
- Trait theories of leadership focus on the individual characteristics or attributes of a leader and their relationship to the leader's effectiveness, both positive and negative. The latter, which includes Machiavellianism, refers to the 'Dark side' of leadership.
- Leader-member exchange (LMX) describes a transactional relationship between the leader and the followers. The leader initiates a request for the followers to take and action, which they perform in exchange for something that may be economic or social. Those with a better exchange relationship with the leader are described as the 'in group'.
- Leadership teams consider leadership and its development in team settings at top (executive), middle and lower levels of the organization.

In the absence of an agreed paradigm, as reflected by such a range of theories, it is not surprising that there is little evidence on the relationship between leadership and manager or organizational effectiveness. What then is the utility of any leadership theory? If you are a convert to a theory that focuses on the characteristics of the leader, such as transformational or trait theory, how can you use it in practice in the organizational setting? Can it be used to select managers for specific positions or can the characteristics be developed in leadership development programmes? If you are a convert to theories of leader-follower interaction in organizational settings, are such settings amenable to change? We will explore some of these issues later when we consider management development programmes, but for now we will accept that leadership is one of the functions of managers that focus on the social system of the organization. The management literature tends to use the terms manager and leader interchangeably, as if that was all there was to the manager's role. The manager also has to manage non-human resources and the tasks that are performed in their area of responsibility. More recently there is a growing body of evidence about the importance of shared and collective leadership that is covered by colleagues in Chap. 1. One thing is certain and there is plenty of evidence to show that where doctors are not exercising leadership, things can go tragically wrong.

### 2.2.6 Role of the Manager

Henry Mintzberg, a Professor of Management at McGill University in Canada, has, based on observing managers in action, described what a manager does [4]. There are the direct roles of the manager:

- Framing the manager's job—this is what the manager decides to focus on (and not), thus framing the focus of the work unit.
- Scheduling the manager's work—or the allocation of the manager's time to tasks.

And the process of managing by acting across three 'planes':

1. Managing through information—which involves: the collection and dissemination of general communication relevant to the unit and acting as its spokesperson; controlling inside the unit through decision-making about issues, courses of action, responsibilities and outcomes.
2. Managing with people—including supervising, motivating and developing people, building and sustaining culture, teams and teamwork within the unit; linking people in the unit to outside the unit through networking, representing and buffering the unit.
3. Managing action directly—in the unit through such activities as managing projects, handling disruptions; outside the unit building support and coalitions and conducting negotiations.

How do these roles play out in health care organizations? We will explore that next.

### 2.2.7 Health Care Managers and Clinical Managers

Health care managers are people who typically have a full time role in management. They may be in middle or top management in the hospital and may, or may not, have a clinical background. Some may have a specific management professional background such as accounting and finance, human resources, marketing and communication or environment and facilities services. A very common management pathway is via a business qualification, diploma or degree.

Many doctors have management responsibilities integrated into their roles, either full-time or as part of a job portfolio. This may be at one of the following levels:

- Operating level
  - Heads of clinical units, wards or allied health departments
- Senior management level
  - Divisional director
  - Clinical director
  - Director of research and development
- Top level leaders
  - Chief executive
  - Executive Director of Nursing
  - Executive Director of Medical Services

Leading and managing clinicians pose some unique challenges not faced to the same degree in other industries. This has to do with the professional workforce in health care, where professionals have a great deal of autonomy in their work. This is particularly so of doctors, who have a tradition of 'clinical freedom' or 'professional autonomy'.

While the competency model has had little support in the leadership theory literature, ranking 25th in number of publications of 63 theories in the report by Dnih et al., it has been popular in health service leadership discourse [3]. Many professional health management organizations have tried, in recent years, to define the competencies required of health care and clinical managers, usually framing them in terms of leadership capabilities. In Australia, HealthWorkforce Australia has developed '*Health LEADS Australia: the Australian health leadership framework'* (https://www.hwa.gov.au/sites/uploads/Health-LEADS-Australia-A4-FINAL.pdf) modelled on the Canadian Health Leadership Network's '*LEADS in a Caring Environment Framework'*. The NHS's Leadership Academy has released its *Healthcare Leadership Model* (http://www.leadershipacademy.nhs.uk/discover/leadership-model/), and The National Centre for Healthcare Leadership (NCHC) in the USA has developed a model of the competencies required by the career health services manager (http://www.nchl.org/Documents/NavLink/NCHL_Competency_Model-full_uid892012226572.pdf).

### 2.2.8 Why Are Clinicians (Medical Practitioners) Hard to Manage?

Earlier in this chapter we noted that for most of the hospitals' history the senior medical staff were not employees, but provided honorary services for indigent and pensioner patients and treated private patients in a direct contractual relationship with them. The hospital was their workshop. It was not until the mid-1970s in Australia, with the introduction of Medibank, now Medicare, that senior doctors became employees, typically part-time, of the hospital through the introduction of sessional payment. Most senior medical staff in private hospitals still remain independent practitioners, not employees, of the hospital. So much so, that it is often said that the real customers of a private hospital are the medical staff, not the patients! Being independent practitioners somewhat removes the medical staff from management line control and accountability.

Within public hospitals medical staff also have significant autonomy and power independent of the management hierarchy. To understand the source of this we need to explore the historic basis of professional authority.

### 2.2.9 Professional Control

We distinguish occupational groups we refer to as professions from others based on it involving a long period of training, typically in institutions of higher learning, and a formal, registered, qualification. Some occupational groups, such as doctors, dentists, lawyers and clergy, are well established as professions. Others, such as nurses and other health professionals, are on a pathway, to greater or lesser degrees, to becoming recognized professions with the associated perquisites. The transfer of nurse education from hospital-based schools to universities and the recent establishment in Australia of centralized professional registration for these occupational groups can be interpreted as steps along this pathway.

The evolution of an independent profession has occurred as a result of the interrelationship of the following factors:

- There is a large body of knowledge.
- This takes a long time to learn—therefore it involves a significant upfront capital investment in time and money, which in the absence of a subsidy restricts participation in this entry phase to those with financial backing There is information asymmetry in the market place, by definition, as the large body of knowledge takes a long time to learn, and therefore consumers are naive.
- The profession lobbies the State to regulate participation in the profession to protect its upfront investment. If anyone can claim to be a member what is the utility of the upfront investment in time and money to learn and be socialized into the profession? This, as a political process, largely took place in Western countries in the mid-nineteenth century, well before the advent of the scientific basis of modern medicine.
- The state agrees to regulate the profession in part because of the information asymmetry and to protect consumers from pretenders. Thus market entry is controlled.
- Because of the large body of knowledge the state has to delegate back to the profession the implementation of these regulations. So we end up with self-regulation that is operationalized through a code of conduct, control of the curriculum and training both includes a process of socialization of appropriate professional behaviour.

The end result is an occupational group that emphasizes self-control, informal peer review and disciplinary processes controlled by peers. Contrast this with the source of power and authority in most organizations, as described earlier in this chapter, in which authority and resulting power is delegated down through the appointed hierarchy.

In a normal organization managers control the production process, that is, how resources, including staff, are used to convert inputs into outputs. This process may be complex in which case managers will employ engineers, under their control, who design the production process. For example, a car makers' production line is designed by engineers and the shop floor is supervised to work within that design. In professional organizations, especially in health care organizations, the senior professionals on the shop-floor, in particular doctors, control the production process. For example, the tasks involved and resources required to perform neurosurgery are determined by consultant neurosurgeons, not by the management, even if the direct line manager is medically qualified, but of a different specialty. Similarly, the specialist determines the characteristics of neurosurgical outcomes, for example, quality and functionality. This is referred to by the medical profession as clinical freedom. In the hospital's transformation system, converting untreated patients into treated patients, the managers are in control of the inputs and the professionals the process and outputs because these can only be known and controlled by the profession.

This divided control is a key challenge in managing health care organizations. It reinforces the historic workshop role of the hospital and sets up a structural conflict between management and clinicians. No wonder managers in health care and doctors, even those with a managerial role, have such differing views about structural relationships in the hospital. This problematic relationship has been described in hospitals in both the UK and the USA [5].

### 2.2.10 The Clinical Manager

In an effort to deal with this challenge and in response to a number of external challenges hospitals have created a number of full-time and part-time hybrid medical management roles, which combine clinician and management responsibilities. The former includes Medical Directors and Chief Executives with a medical background while the latter includes titles such as Head of Division, Clinical Director, Physician Executive and Head of Clinical Units, amongst others. Driving these changes have been increasing public concerns about the cost of operating health care organizations, the apparent failures in quality and safety of clinical outcomes and contemporary theories of managing public sector organizations, such as the New Public Management (NPM), given the majority of hospitals operate in the public or not-for-profit domain.

Most western countries have implemented components of NPM over the last 30 years and, while the term may be past its use-by date, it provides a useful framework for considering how clinical management has evolved. The components of NPM, initially described by Hood, are listed in Table 2.1 [6]. These have also been abbreviated as the 3Ms—Measurement, Markets and Management.

Given the decentralized autonomy of the dominant profession in the hospital, the medical staff, it is clear that a move to implement measurement of outcomes, such as quality standards, respond to competition and output based funding the hospital needs to be able to span the division of control between management and clinical practice. The development of clinical managers has been one of the main strategies to do this. They are expected to exercise control in both the clinical domain and the management domain. Full-time managers with a clinical background are seen to be able to understand the clinical domain, even though they usually discontinue clinical practice [7]. Clinical managers, such as clinical directors, who maintain a hybrid role in clinical and management practice, are expected to be effective in both roles, a tall task indeed.

There is little evidence about the effectiveness of clinical management. In a mixed-methods study involving surveys and case studies of medical leadership in the NHS, Helen Dickinson and her colleagues found a wide variety of medically led structures, both between and within hospital Trusts [8]. They noted an ongoing gap between clinical managers and their clinical colleagues, who tend to see them as having gone over to the dark side and thus compromising their clinical legitimacy. Barriers to greater clinical management engagement were identified to include time pressures of clinical commitments, variable relationships with general managers, lack of career structure incorporating these roles, financial disincentives and lack of appropriate training. In

**Table 2.1** Components of new public management

| Component | Rationale |
|---|---|
| Professional management (Hands-on control by the person on the top who is to be left ‘free to manage’) | Accountability requires clear assignment of responsibility, not diffusion of power |
| Explicit standards and measures of performance (Quantitative targets) | Accountability requires clear goals |
| Greater emphasis on output controls rather than centralized personnel management | Results more important than process |
| Shift to disaggregation of organizational units | To enable ‘manageable’ units and gain efficiency through contract or franchise arrangements |
| Shift to greater competition (Contracts and tendering) | Rivalry to drive greater efficiency |
| Private sector style more flexible management practice | Use private sector tools to drive efficiency |
| Stress on greater discipline and parsimony in resource use (Cutting direct costs, resisting union demands, reducing compliance costs) | ’Do more with less’ |

From Hood C. A public management for all seasons? Public Administration 1991;69(1):3–19, with permission

their nine case studies they observed that hospitals Trusts with high levels of medical leadership engagement performed better on their measures of organizational effectiveness. Others have proposed that the performance of clinical managers is dependent more on the networks and clinical legitimacy they have established, inside and outside the organization, before they have taken on the clinical management role, than on their managerial skills [9].

### 2.2.11 Coordinating the Patient Care Process

In the previous sections we have explored the rationale for the control of professional work, with professional self-control, or clinical freedom, being based on the profession's control of the knowledge base that underpins its work. However, doctors do not perform all the tasks required to transform an untreated patient into a treated patient. There are, of course, nursing tasks, other health professional tasks, hotel-type tasks that also need to be performed and coordinated. This raises the questions about the mechanisms used to coordinate all these tasks, in essence the exchange of information between individuals performing these tasks, and how professional autonomy is handled between the different professional groups involved.

Based on the work of a number of writers on organization systems theory strategies of coordinating tasks can either reduce the need to exchange information to coordinate tasks, referred to as *programming* strategies or facilitate the exchange of information, referred to as *feedback* strategies [10].

Programming strategies for coordination involve planning and organizing the exchange of information ahead of time and typically involve standardization, either of the tasks (standardization of work), the skills workers have, or the outputs that are produced. An archetypical example of *standardizing work* is the manufacturing production line in which the tasks are engineered. Other examples include standardized procedures, protocols, clinical guidelines and pathways. An example of *standardization of skills* is professional training. When a hospital employs a neurosurgeon or a physiotherapist they employ someone who has been trained to undertake neurosurgical or physiotherapy tasks respectively and can be expected to know when and how to perform them. *Standardization of output* is not a common mechanism, but an example in hospitals would be unit-dose or automated medications dispensing devices.

Feedback strategies involve real-time exchange of information between interdependent staff. This may involve staff in a hierarchical relationship, in which case it is referred to as *supervision* (for example: Charge Nurse to ward staff; Registrar to Resident) Staff who are not in a hierarchical relationship exchange information through *mutual adjustment* (for example: ward nurse to ward nurse) or if in a group setting, through *group coordination* (for example: team meeting, ward round).

Programming strategies are efficient, but may not be suitably complex or adaptive to the coordinating requirements of the work. Feedback strategies are adaptive, but inefficient—there is only so much time in a work shift to be engaged in real-time information exchange. There is a tendency to think that poor coordination is due to poor communication via feedback strategies (i.e. staff talking to each other). However, effective coordination requires a focus on maximizing the utility of *all* mechanisms. In particular, maximizing the use of programming strategies frees up time available to focus on real-time feedback mechanisms. Given the professional workforce of health care organizations there is a reliance on standardization of skills through professional training, but this is outside the control of the organization itself, although it can enhance this mechanism through careful staff selection, ongoing professional development and retention strategies. Standardization of work through clinical guidelines, pathways and protocols remains an important strategy for the health care organization, but is challenged by professional autonomy and hence has variable uptake [11].

### 2.2.12 Inter-professional Collaboration

Patient care requires a range of health professionals to participate—these may be intra-professional (for example, within the medical profession, such as surgeons collaborating with psychiatrists, or physicians with intensivists) or multidisciplinary across different health professionals (such as a psychiatric or geriatric team involving doctors, nurses, social workers, physiotherapists and other health professionals). All the health vocational groups are engaged in the professionalizing process described above, in part to improve standards, to gain power and influence, to enhance status and to gain the perquisites of a professional occupation including economic reward. The transfer of nurse education from hospitals to universities and the evolution of professional registration are examples of this professionalization process at work. The legitimacy of the profession starts with its claim to a large body of distinctive knowledge, that takes a long time to learn and that can only be defined by and delivered by members of the profession. Therefor control of the knowledge base is the turf over which health vocational groups have to battle. These battles play out in the following examples:

> Only a doctor can do this (prescribing).
> Only an occupational therapist can do this (splinting).
> Only a clinical psychologist can do this (cogitative therapy).
> Only on obstetrician in a hospital can do this (midwife controlled home birth).

So not only are doctors hard to manage, it's hard to collaborate across professions if the knowledge base is contested.

The organizational circumstances in which various health professionals have to collaborate to get work done will also influence the structure and process of this collaboration.

Inter-professional domains of work are influenced by a set of interacting organizational factors, including [12]:

- The time frame—this may be *concurrent* in the same geographic and time setting, such as a ward team engaged in a ward round or team meeting; or *sequential*, involving coordination across different periods of time or geography, such as a specialist referral, transfer between a ward and ICU or discharge from the hospital to the care of the general practitioner.
- The urgency—ranging from *low-urgency*, such as the interactions between the ward staff and pharmacy for routine dispensing to *high urgency*, such as the cardiac arrest team.
- The structure of authority—ranging from *highly structured* in which leadership (typically the doctor) is defined and agreed, such as the surgeon in the operating theatre, to *less structured*, such as an aged care assessment team. Highly structured authority will occur in situations in which the key cognitive basis for the clinical intervention is controlled by one profession. This is the case in the operating theatre where everyone, including fellow medical practitioner the anaesthetist, will defer to the surgeon. In contract accepted authority of the psychiatrist in a psychiatric team is often contested, especially if the dominant therapeutic intervention is a process one, such as cognitive therapy, rather than pharmaceutical. In the latter the doctors' control of prescribing maintains their authority. In the former, psychologists, social workers and nurses may well claim equivalent authority.

Developing and influencing coordination of the patient care process is a key health care management challenge that has at its core effective change management.

### 2.2.13 Change Management

> Everything changes and nothing stands still—Heraclitus quoted by Plato in *Cratylus*
> Plus ça change, plus c'est la même chose (The more it changes, the more it's the same thing)—Jean-Baptiste Alphone Karr in *Les Guêpes*

These quotes remind us that change in organizations is ubiquitous. Sometimes it is planned, but it is also continually happening, driven by a wide range of factors, internal and external to

the organization. Based on a typology originally proposed by Van de Ven and Poole organizational change can be classified into four models:

- *Planned change*—in which participants plan and move towards an agreed new state.
- *Regulated change* (life cycle)—involving standardized processes and procedures for change in an organization.
- *Conflictive change*—resulting from the application of power to change by one component of the organization of a weaker one.
- *Evolutionary change*—resulting from completion and selection between alternative models of design or activities [13].

While managers are required to be participants in all these models of change they will at least espouse Planned change as the model to use to guide their pro-active efforts at managing change and this will be the focus of the remaining section on this topic.

### 2.2.14 Frameworks of Planned Change

There many management writers who have promulgated frameworks for designing Planned change. These include:

- Kurt Lewin—one of the early writers on organizational change. Lewin is also known for coining the terms '*action research*' and '*force field analysis*' (used in organizational change to map the factors influencing change—positive or negative).

Lewin describes three stages of the change process:

- Unfreeze—the stage of establishing the agenda for change and reducing resistance to change by enabling people to let go of 'old methods'.
- Moving—making the changes, involving the people.
- Freezing—making the change permanent by institutionalizing 'new methods' [14].

John Kotter, a professor in the Harvard Business School, who has been ranked by Business Week magazine in 2001 as the '# 1 leadership guru', an 8-step change process for managing change [15]. The steps are:

- *Establish a sense of urgency*—create the reason and impetus for change.
- *Form a powerful guiding coalition*—gather those with a shared vision for change and the collective power to do something about it.
- *Create a vision*—a description of the change that stakeholders cab 'buy into'.
- *Communicate the vision*—to the stakeholders and participants to create a desire for change.
- *Empower others to act on the vision*—turn the vision into realities on the ground.
- *Plan for and create short-term wins*—to motivate continued action for change.
- *Consolidate improvements* and produce still more change.
- *Institutionalize the new approaches*—the new becomes that standard way of doing things.

Beckhard and Harris provide a planned change formula that you can use as a 'ready reckoner' as you navigate your way through change [16]. They see that for change (C) to occur, the level of dissatisfaction with the status quo (A), the desirability of the proposed outcome of change (B) and the practicability of doing the change (D) must outweigh the 'cost' of changing (X) so that: $C = (A \times B \times D) > X$. Who said management couldn't be scientific?

### 2.2.15 Planned Change in Health Care

Health care organizations have been active in planned change initiatives for many years, but the real impetus derived from the safety and quality movement over recent decades. Starting with Total Quality Improvement (TQI) the safety and quality movement has taken up planned organization change as a central tenant. The Institute for Healthcare Improvement (IHI), established by Don Berwick, is currently the most active promoter of organization change

in health care. It uses the Plan-Do-Study-Act (PDSA) framework attributed to W. Edwards Deming [17].

#### 2.2.15.1 Six Sigma and Lean Methods

Many health care change initiatives in recent years have used the Six Sigma or Lean Thinking frameworks. These have their roots in the long-standing production improvement processes at Motorola in the USA and Toyota Motors in Japan, which in turn were informed by the American industrial engineer and writer Fredrick Taylor (Scientific management) and the quality improvement engineer W. Edwards Deming.

These frameworks share many features, with Six Sigma focusing on 'doing things right' while Lean focuses on 'doing the right things'. Langabeer and colleagues have provided a comparative summary of these techniques (Table 2.2).

### 2.2.16 Sustaining Change

In Lewin's planned model the last stage is to 'refreeze' the change. This is perhaps the hardest part (and least studied) of managing organizational change. We have all experienced numerous examples of change initiated with great enthusiasm only to find that it was hard to sustain momentum and then to see things slide back to how they were or simply overtaken by the next wave of change. So what can be done to enhance the chances of sustaining the change effort and getting it institutionalized?

In a review of the literature on factors affecting sustainability of planned change initiatives Buchanan et al. identified multiple interacting factors, including:

- *Substantial*—perceived centrality, scale, fit with organization.
- *Individual*—commitment, competencies, emotions, expectations.
- *Managerial*—style, approach, preferences, behaviours.
- *Financial*—contribution, balance of costs and benefits.
- *Leadership*—setting vision, values, purpose, goals, challenges.
- *Organizational*—policies, mechanisms, procedures, systems, structures.
- *Cultural*—shared beliefs, perceptions, norms, values, priorities.
- *Political*—stakeholder and coalition power and influence.
- *Processual*—implementation methods, project management structures.
- *Contextual*—external conditions, stability, threats, wider social norms.
- *Temporal*—timing, pacing, flow of event [18].

The authors conclude, '(n)o simple prescription for managing sustainability emerges from

**Table 2.2** Lean versus six-sigma

| Dimension | Six sigma | Lean |
|---|---|---|
| Goals | Conformance to customer requirements; eliminate defects (errors, rework) | Remove non-value added activities; eliminate waste (errors, wait times) |
| Approach | Reduction of process variability | Standardization, production flow leveling |
| Principal tool/method | Statistical process control, run charts, cause and effect diagrams | Value stream mapping, Kanban (instructional card used to control logistical chain), 5S (Sort, Straighten, Shine, Standardize, Sustain) |
| Infrastructure | Through formalized structures, titles and roles | Cultural change, 'Sensei' relationships (master teacher) |
| Methodology | DMAIC (define, measure, analyse, improve, control) | PDSA (plan, do, study, act) |
| Performance metrics | Quantifiable, cost of quality, mapped into financial value | Not consistent, often results in new metrics |

From Langabeer JR, DelliFraine JL, Heineke J, Abbas I. Implementation of Lean and Six Sigma quality initiatives in hospitals: A goal theoretic perspective. Operations and Management Research 2009;2:13–27, with permission

this review'. However, it can be seen that while some of these factors are outside the influence of the manager, some can be taken into account in developing and implementing planned change.

## Conclusion

The role of the manager in a health care organization has similarities with those roles in general organizations, but also faces unique challenges. These arise largely from the professional nature of the workforce, in which the medical profession in particular controls the production process through its autonomy, or clinical freedom.

To meet this challenge health care organizations have developed hybrid clinical manager/leader roles to span both management responsibility and clinical credibility. A variety of clinical leadership role competency platforms and leadership development programmes have been established, but there is scant evidence that these are material in positively influencing health care organization performance.

The professional nature of the health care organization workforce also impacts on how patient care can be coordinated between the various professionals involved. There is a need for all coordinating mechanisms to be enhanced, using programming strategies such as ongoing training and professional development and clinical guidelines together with feedback strategies such as supervision.

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# Strategic Planning in Healthcare

3

Caroline Clarke

**Learning Objectives**
By the end of this chapter, the learner should be able to understand:

- The process for the development and implementation of a strategic plan.
- When to commence planning and some of the tools that will be useful in strategic planning.
- Pitfalls to avoid in planning, prioritisation and allocation of resources.

## 3.1 Introduction

> "By failing to prepare, you are preparing to fail."
> *Benjamin Franklin, Polymath.*
> "If you don't know exactly where you're going, how will you know when you get there?"
> *Steve Maraboli, Author and Behavioural Science academic.*

Firstly, when considering the process of strategic planning it is important to understand what this means. The word strategy is originally derived from the Greek word στρατηγία (*stratēgia*) [1] and is a high-level plan to achieve one or more goals under conditions of uncertainty. Strategic planning has been described as a systematic process of envisioning a desired future and translating this vision into broadly defined goals or objectives and a sequence of steps to achieve them [2].

Johnson and Scholes [3] state that strategic planning helps to determine the direction and scope of an organisation over the long term, matching its resources to its changing environment and, in particular, its markets, customers and clients, so as to meet stakeholder expectations.

Thus, an organisational strategic plan denotes a general programme of action and an implied deployment of resources and forms the basis for how organisations achieve their long-term objectives. The plan should provide a high-level road map for the future direction of the organisation and support more detailed planning, and prioritisation and allocation of resources. Strategic planning generally came to prominence in the 1960s and has progressively been incorporated into the healthcare setting over the past 30 years.

A strategic plan will be of limited value unless it is aligned with the operations of the organisation. There is little point in expending many resources and much energy into a plan that is described in detail in a glossy document which then sits on the shelf and gathers dust until the preparation begins for the next strategic planning cycle.

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E. Loh et al. (eds.), *Textbook of Medical Administration and Leadership*,
https://doi.org/10.1007/978-981-10-5454-9_3

In many jurisdictions the development of a strategic plan is part of the corporate governance requirements for an organisation. For example, in the state of Victoria the strategic overview forms part of the Statement of Priorities for public health institutions [4]. In this example the strategic plan is signed off by the Board of the organisation and requires approval by the Victorian Minister for Health.

The principles discussed in this chapter are described in the context of developing a strategic plan for the entire organisation; however, these principles can equally well be extrapolated to planning occurring at a divisional, departmental or service level within an organisation. Figure 3.1 represents the life cycle of a strategic plan process. Strategic plans vary in duration but most commonly in the healthcare context they will be established for a 3–5 year period. Each of these steps will now be described in more detail.

## 3.2 Preparing for the Strategic Plan: Setting the Mission, Vision and Values for the Organisation

Before embarking on the detailed content of a strategic plan it is essential to have determined the vision, mission and values for that organisation. Often these will have already been agreed as part of a previous planning cycle. If this is the case it is not necessary to spend a lot of time changing these significantly, especially if a robust process has been undertaken previously. Clearly if the organisational focus or environment has changed significantly, then more time may need to be spent on this activity. However, whatever the situation, the mission, vision and values should at least be briefly reviewed to determine that they are still relevant, and if so, the organisation should then quickly move onto the development of the strategic plan itself.

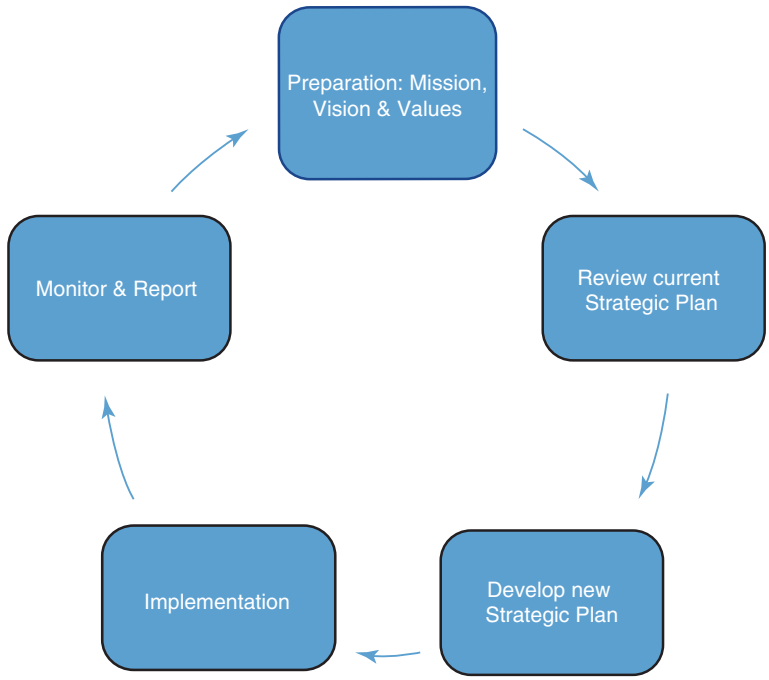


**Fig. 3.1** The life cycle of the Strategic Plan

The organisation's mission is a brief statement identifying the fundamental reason as to why it exists, what it actually does and how it will achieve its vision. It creates a sense of direction, broadly describes the organisation's capabilities and can be written as the "present state". For example, the mission statement of a district hospital may be expressed as "General Hospital exists to serve the people of the district". Developing a mission statement is the first step of strategic planning and provides a foundation for the process. It is also important in later prioritisation.

The vision statement defines the organisation's desired future state. The vision should be future orientated, ambitious and aspirational while at the same time being realistic and achievable. According to Zuckerman [5], the vision statement should project to a point in time far enough from the present so that the future for the organisation is unpredictable. Generally the vision statement is a concise single sentence, or occasionally two, which is specific enough to uniquely describe the organisation. The vision should also be credible to the staff of the organisation so that it can provide meaning for their work.

The mission statement is timeless whereas the mission statement, while futuristic in nature, is time bound. Despite this a well-developed vision can remain the same for many years.

The organisation should also have a set of values which are principles that guide the actions required at all levels of the entity to achieve the mission and the vision. These values provide information to employees as to how they should conduct themselves and how they should undertake their roles in order to achieve the organisation's mission, vision and goals. Most organisations now incorporate their values into their individual role descriptions and performance appraisal and development processes.

Once the mission, vision and values are agreed the next steps are to develop Goals and Objectives to direct the strategy: these aspects of the strategic planning process will be discussed later in this chapter. Some examples of the mission, vision and values of major medical institutions around the world are presented in Tables 3.1, 3.2, and 3.3 [6–8]. They vary slightly in their format but provide excellent well-constructed illustrations.

**Table 3.1** Mission Statement from Johns Hopkins Medicine, Baltimore, USA

| Mission | Vision | Core values |
|---|---|---|
| • The mission of Johns Hopkins Medicine is to improve the health of the community and the world by setting the standard of excellence in medical education, research and clinical care<br>• Diverse and inclusive, Johns Hopkins Medicine educates medical students, scientists, healthcare professionals and the public; conducts biomedical research; and provides patient-centred medicine to prevent, diagnose and treat human illness | • Johns Hopkins Medicine pushes the boundaries of discovery, transforms healthcare, advances medical education and creates hope for humanity<br>• Together, we will deliver the promise of medicine | • Excellence and Discovery<br>• Leadership and Integrity<br>• Diversity and Inclusion<br>• Respect and Collegiality |

From Johns Hopkins Mission, Vision & Values: https://www.hopkinsmedicine.org/the_johns_hopkins_hospital/about/mission.html

**Table 3.2** Mission Statement from Melbourne Health, Victoria, Australia

| Mission | Vision | Values |
|---|---|---|
| • Melbourne Health's Mission is to provide world-class healthcare for our community. We will embrace discovery and learning, build collaborative relationships and engage our patients in their care | • "*Passion for Caring—Achieving the Extraordinary*" | • *Respect* for the dignity beliefs and abilities of every individual<br>• *Caring* and compassion<br>• *Unity* as a team and in embracing our communities<br>• *Discovery* through passion for innovation<br>• *Integrity* by being open, honest and fair |

From Melbourne Health Mission, Vision & Values: http://www.mh.org.au/our-goals-and-values/w1/i1001228/

**Table 3.3** Mission Statement from *St Vincent's Health Australia*

| Mission | Vision | Values |
|---|---|---|
| • As a Catholic health and aged care service our Mission is to bring God's love to those in need through the healing ministry of Jesus<br>• We are especially committed to people who are poor or vulnerable. We draw on the talents of our people and collaborate with others who share our vision and values to continue the pioneering spirit of Mary Aikenhead and the Sisters of Charity. We are committed to providing compassionate and innovative care, enabling hope for those we serve | • To lead transformation in healthcare inspired by the healing ministry of Jesus | • *Compassion*: Caring for others with an openness that affirms life and healing<br>• *Justice*: Acting with courage and fairness in pursuit of what is right and just<br>• *Integrity*: Ensuring our actions and decisions are grounded in our values, reflecting both honesty and authenticity<br>• *Excellence*: Demonstrating a passionate commitment to continuous improvement and innovation |

From St Vincent's Health Australia Mission, Vision and Values: https://svha.org.au/home/mission/mission-vision-and-values

These examples show that, in health, these statements and values are centred around the core business of clinical care, generally with a focus on patient centredness. There is generally also some representation of the organisation's role in education and research or innovation.

There are, of course, many more examples which can be found on the websites of health organisations and in their strategic plan documents which will generally be available in the public domain.

## 3.3 Reviewing the Current or Previous Plan

Once the mission, vision and values have been confirmed, the next step is to review the previous strategic plan. This review should include an evaluation of how many of the goals and objectives related to the previous plan were achieved and whether any of the components of the plan should be rolled over into the new cycle. If certain aspects of the plan were not delivered, then the reasons for this need to be questioned. In particular, the organisation should ask whether this was purely a timing issue or were there objectives or deliverables that were just too ambitious. Has the external environment changed politically or financially resulting in these unmet goals becoming unachievable? Some of the goals may form part of a longer term strategy which extends beyond the usual 3–5 year timeframe for the plan, and these will need to be represented in the new plan, but potentially with revised goals and objectives.

This review is probably best and most simply undertaken by the executive and senior management team in the organisation. The information gathered can then be collated and prepared to inform the next stage of the cycle, the development of the new strategic plan. Ideally this should be undertaken around 6 months prior to the expiry of the current strategic plan in order to allow time for review and stakeholder consultation.

### 3.3.1 Developing a New Strategic Plan

The development of a new strategic plan for the organisation firstly requires consideration of some key points including the model or methodology to be used, the tools that will be employed to assist the process and the selection and engagement of stakeholders to contribute to the development of the plan.

### 3.3.2 Models for Strategic Planning

There are a number of models that are described for use in strategic planning exercises and the choice of model depends on a number of factors including purpose of the strategic planning exercise, whether the organisation has previously undertaken a formal strategic planning process

and how successful this has been, the culture of the organisation and the environment of the organisation [9]. Some of these models are outlined below:

*Vision- or goals-based strategic planning:* This is the most commonly used model in healthcare, and the one which will be described in this chapter. It starts with identifying a vision for the organisation, which is often quite ambitious or aspirational, and then works to identify the goals that are required to achieve the agreed vision.

*Issues-based strategic planning:* This model works in reverse to the vision-based model in that, instead of working backwards from the future vision it starts with the present and looks to the future. It is better suited to organisations with limited resources who have several current issues which require relatively quick resolution.

*The alignment model:* This model strives to ensure a strong alignment between the mission of the organisation and its resources. It is most useful for fine tuning strategies or identifying why they are not working.

*Scenario planning:* This model is most often considered as an adjunct to other models for strategic planning in that it may be used to enhance strategic thinking.

*Organic or self-organising planning:* This may be used in specific environments where an unfolding and naturalistic process may be preferred to a more traditional mechanistic and linear process. It is a process very much focused around shared values and reflective practices, and utilises tools such as dialogue and story boarding.

*Real-time planning:* This is a more dynamic approach to planning which is useful in organisations where the environment, particularly the external environment, is rapidly changing.

### 3.3.3 Stakeholder Engagement and Input

There needs to be a strong sense of ownership of the strategic plan at all levels of the organisation. It is helpful to take both a "top down" and "bottom up" approach to the planning; however, the methods for seeking input may vary. The development of the strategic plan will generally be led by a senior group in the organisation, often the executive group or committee, with accountability ultimately sitting with the chief executive officer. If the process is done well it can also provide an excellent opportunity for team building which will in turn increase the acceptance and ownership of the plan.

Nilofer Merchant [10] proposes that a strategy which is top down and led by a small group of executives and then passed down through the organisation is likely to be more poorly executed than one developed outside of the board room bringing people from all levels of the organisation together. Her philosophy is "engage all of the company, but not after the process, *during* the process". Similarly Simons [11] states that "discussions must cascade down the organisation, not stay stuck at the top". He also emphasises that operational managers are a key part of the process as they are generally the ones who can commit to actions and are responsible for the results.

Stakeholders are individuals or groups of people internal or external to the organisation with an interest, or stake, in the strategic planning process and its results. A formal stakeholder analysis should occur at the beginning of the strategic planning process. This will allow identification of which individuals or organisations should be including in the planning process, what roles these stakeholders should play and at what point in the process the engagement should occur, and finally allows opportunities for relationship building along the way.

Consumers should be identified and included in the planning from the earliest stages of development. Most healthcare organisations now recognise the importance of consumer involvement in healthcare planning and will have existing consumer resources that can be consulted, for example, community advisory councils or committees, support groups, and consumer reference groups or registers. There are many reports and publications available that describe the value of consumers in health service planning, for example, the

Victorian Auditor General's report (2010) [12]. There are also many guides available to provide guidance for health services wishing to involve consumers in their service such as those provided by the Health Issues Centre [13].

Once the stakeholders have been identified consideration should be given to the methods for receiving their input. It is not a one-size-fits-all approach. Clearly it is impractical to talk to everyone in the organisation individually; therefore, ideally use should be made of existing forums or meetings. Additional focus groups may be held for clinical and non-clinical staff, and for internal and external stakeholders. Some tailored individual or small group discussions may be appropriate. The use of simple and easy to access survey tools such as Survey Monkey [14] may assist and add useful information but the questions need to be well thought through and the survey designed to ensure that the information received is manageable, easy to collate and can provide added value to the plan.

Face-to-face consultation sessions for stakeholders should be well planned and structured in order to optimise the use of their time and with clear expectations of what will be delivered at the end of the sessions. Use of an experienced internal or external facilitator can be helpful. A trained facilitator can direct the process efficiently and also assist with the collation and presentation of information. Facilitators will keep the group moving forwards, avoid unnecessary distractions related to side issues, and can help participants resolve disagreements and develop effective solutions. It is important that all of those involved in these consultation sessions are subsequently provided with the opportunity to feedback on the draft plan as it becomes developed. Flexibility is required to engage groups who are key opinion leaders, such as senior medical staff in the hospital setting, who may be more difficult to attract to existing forums or focus groups, and a suitable strategy must be identified to ensure appropriate engagement of such groups. Failure to seek input from such important contributors will inevitably impact adversely on the success of the plan.

## 3.4 Tools to Support the Development of a Strategic Plan and Its Related Goals

In health it is important to review the context for the plan and consider the internal and external factors that influence the priorities of the health service. Some tools to facilitate this and examples of the factors that should be considered are described in the following section.

A good way to gain input from a wide range of stakeholders is to use a SWOT analysis which explores strengths, weaknesses, opportunities and threats (illustrated in Fig. 3.2). The exact origins of the SWOT analysis are obscure but it is a widely used planning tool [15]. The process for conducting a SWOT analysis will vary and be influenced by the number and availability of stakeholders, and the rate of change of the internal and external environment. As discussed in the previous section, this is an area where the use of an experienced facilitator may be of benefit.

The four components of the SWOT analysis are detailed below with expansion to include factors of potential relevance to the healthcare sector. Strengths and weaknesses tend to be internally driven and focused, whereas opportunities and threats more related to, and influenced by, the external environment.

*Strengths:* our capabilities—what are we doing well, what are we/ could we be good at? These are advantages that can be exploited by the organisation. These might include the following:

- Competitive advantage
- Unique selling points
- Location or geographical situation
- Good financial reserves or access to alternative resources such as philanthropy

- Resources, assets, people
- Innovations
- Accreditation, qualifications, certifications
- Philosophy and values
- Excellence in customer service

*Weaknesses:* our limitations—what are we not doing well, what are we not good at?

Weaknesses may include:

- Lack of competitive strength
- Poor financial situation
- Low morale amongst staff, lack of commitment, weak leadership
- Unfavourable geographic location
- Poor staff attraction and /or retention

*Opportunities:* what factors internally or externally might favour or benefit the organisation if we take advantage of them?

Opportunities may include:

- Industry and lifestyle trends
- Niche target markets and targeted funding opportunities
- Information and research

*Threats:* what internal or external events and trends are unfavourable to the organisation?

Examples of threats:

- Market demand
- Political influences
- Environmental effects
- Loss of key staff
- Economic changes

It may also be helpful to undertake a "PEST analysis" to scan the external macro-environment in which the organisation operates. Like the SWOT, the exact origin of this approach is difficult to determine (Fig. 3.3). The PEST describes a framework of macro-environmental factors used in the environmental scanning component of strategic management (Fig. 3.3). Some analysts have added legal and rearranged the mnemonic to SLEPT; others have inserted environmental factors and expanded it further to PESTEL or PESTLE.


**Fig. 3.2** The four quadrants of the SWOT analysis

The basic PEST analysis includes the following four factors:

- *Political* factors which are those that relate particularly to the impacts of government policy on the sector. This includes the funding and regulatory environment within which the organisation operates and whether there are any declared or anticipated changes to these over the life cycle of the plan.
- *Economic* factors including economic growth and other issues relating to the financial environment. These factors have major impacts on how businesses operate and make decisions. The economic environment has an indirect effect on health: employment and unemployment, affordability, demand for private versus public healthcare, workforce


**Fig. 3.3** Components of the basic PEST analysis

availability and patterns, potential for the introduction of substitution models for service delivery, the size of the organisation itself and whether it can or should grow (or decrease) in size. Is the organisation operating services that are identified as priorities by the funding body or, if not, does it have the capability to do so? In addition, consideration may be given to the position of the organisation in terms of service delivery, for example, is it one of many organisations providing similar high volume services to a local population, or is it a highly specialised service providing tertiary or quaternary services at a state-wide level or even with a role nationally?

- *Social* factors: These include patient or client demographics, lifestyles, religion, education, population growth rate and age distribution, changes in disease patterns, burden of disease that will impact on demand for services, life expectancy, infant mortality and public expectations.
- *Technological* factors: These may include research and development activity, technology incentives and the rate of technological change. Furthermore, technological shifts can affect costs and quality and can lead to innovation. New technologies or clinical practices that have emerged or are gathering evidence should be identified to determine if they may impact on aspects of the planning over the projected cycle for the strategic plan, including the introduction of new drugs, surgical procedures and equipment.

If the analysis is expanded to PESTLE or PESTEL this adds:

- *Legal* factors which can affect how an organisation operates, its costs, its risk profile and the demand for its products.
- *Environmental* factors include ecological and environmental aspects such as weather and climate but these are obviously less relevant in the healthcare context.

### 3.4.1 Porters Five Forces Model

This model, proposed by Michel Porter in 1979, has been used in the healthcare industry and may be particularly useful in the context of private hospitals or providers [16]. It facilitates evaluation of the competitive nature of the sector (Fig. 3.4).

In health the five forces may cover the following areas:

- Force 1: Barriers to entry. In healthcare barriers may include volume of practice; in other words, if a certain procedure is not going to be undertaken at an adequate volume, it may be detrimental to undertake this

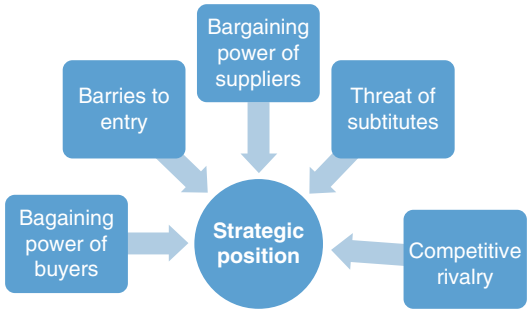


**Fig. 3.4** Illustration of Porters Five Forces Model

in a particular institution either on quality grounds or in terms of financial efficiencies. Another potential barrier is "brand loyalty"; in other words, patients or referrers might be reluctant to switch to a new provider, hospital or practitioner/specialist, in preference to the established one who they have used before. Adequate infrastructure, including human resources, are also considered in this category.

- Force 2: Threat of substitute products or services. In the private healthcare industry these threats could come from public or not-for-profit organisations.
- Force 3: Bargaining power of the buyers and customers. In healthcare the buyer may not necessarily be the patient, although they may be influenced by the potential cost of the treatment, including co-payments. Buyers in this context may include private insurers or governments.
- Force 4: Bargaining power of suppliers. In the healthcare industry context the suppliers include medical or other clinical practitioners who provide the services, and medical equipment, pharmaceuticals or consumable suppliers.
- Force 5: Competitive rivalry: This describes the intensity of competition for market share from other companies in the industry or sector. The weapons used in this rivalry may include pricing, product or service design, advertising and promotion, and post service support.

Perrott and Hughes [17] from the University of Technology, Sydney, and the University of Canberra describe in some detail the use of this methodology to analyse the main forces at play in the private hospital industry in Australia.

The strategic plan should ensure that the most effective use of available resources is made, and at the same time be realistic about any additional resources that may be required to deliver the goals and objectives. In the health sector funding is always tight and often capped; therefore, it is pointless to set aspirational goals that are dependent on substantive injections of resources, unless these have already been secured.

## 3.5 Development of Goals and Objectives

As discussed earlier, once the mission, vision and values have been confirmed and adequate and relevant stakeholder consultation has occurred, it is time to formulate the goals and objectives that support the strategic plan.

Goals are specific statements of the desired results to be achieved over a specified period of time within the life cycle of the plan. Objectives are measurable statements or incremental milestones which specify changes or benefits that the organisation hopes to achieve as it strives to achieve a specific goal. A number of objectives may be required to meet a specific goal. Merchant [10] advises against leaders overdefining the specifics of how the strategy should be executed. Instead she recommends that there will be greater sense of ownership if local area managers and frontline employees are asked how they might achieve the objectives. This often allows a broader range of ideas for potential success.

Goals and objectives set in the strategic planning process should be SMART as in Fig. 3.5.

*Specific:* Specific objectives or actions will be more successful than general ones. In set-

ting specific objectives one should ask the six "W" questions: WHO is involved, WHAT is to be accomplished, WHERE the action will occur, WHEN will the action occur, and the timeframe, WHICH identify requirements to be considered and constraints or obstacles that need to be overcome, and WHY the action is required, the reasons, purpose and benefits.

- *Measurable:* Very specific criteria should be developed for measuring progress towards attaining each objective or action. Having well-defined metrics increases the likelihood of success.
- *Attainable:* Once objectives and actions have been identified, a process should also follow where the steps towards achieving them are clearly spelt out with anticipated timeframes to enable purposeful tracking.
- *Realistic or relevant:* An action must represent an objective that the area concerned recognises as important and that the members of that area are willing and able to work towards in achieving this objective. Resource requirements and risks need to be taken into consideration.
- *Timebound*: There is no drive to complete actions without a defined timeframe.

### 3.5.1 Alignment with Organisational Plans and Operations

No strategic plan can be effective unless it is aligned with the day-to-day operations of the business. It is therefore essential that there is an action plan to support the implementation of the strategic plan. In most organisations this will take the form of an annual business plan or operating plan. This describes the critical success factors or objectives, who will be responsible for each of the objectives, the key performance indicators (KPIs), the steps or tasks to be completed to achieve the objectives and the timeframe for completion. This business plan will then be monitored on a regular basis, usually by the organisation's executive.

The organisational business plan will then usually inform operational plan for divisions and departments throughout the organisation. Individual workers will generally have annual performance goals which relate to these plans as well as the agreed organisational values. This relationship is illustrated in Fig. 3.6.

The strategic plan may also be aligned with other organisational strategy documents which provide more detail from a specific perspective.

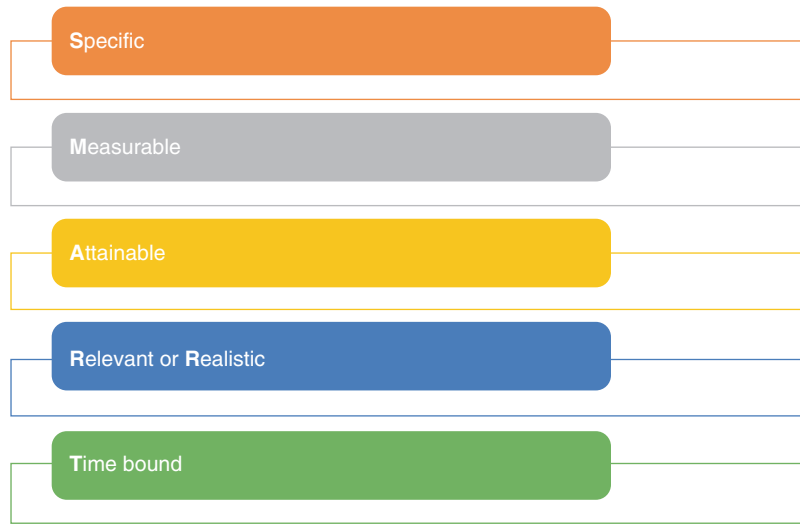


**Fig. 3.5** Goals and objectives should be S.M.A.R.T


**Fig. 3.6** The cascade from the organisational strategic plan to the performance of individual staff members

For example, there may be an information technology strategy or a human resources or workforce strategy.

## 3.6 Implementation of the Strategic Plan

Most successful strategies will comprise 10% formulation and 90% implementation. It is harder to put the strategy into effect than it is to plan it.

Once the content of the strategic plan has been agreed, a document will be developed that describes it. This document usually starts with an introductory message from the organisational board chair or equivalent position and/or the Chief Executive Officer. It will then articulate the mission, vision and values of the organisation. There will be some description of the service environment, including reference to current policy and planning documents that are relevant to the sector. There will be a summary of the key achievements from the previous strategic plan. This will then be followed by the core content of the document, the strategies, objectives and/or the actions to be undertaken to achieve these and the KPIs that will represent achievement of the objectives.

Generally the completed strategic plan will undergo a formal sign-off process by an external governance body. In Australian context this may be the relevant state or territory department of health.

### 3.6.1 Communications and Launch

Once the strategic plan is completed, it should be communicated and promoted across the organisation and be freely available for both internal staff and consumers as well as external parties. Generally this will be coordinated through the marketing, communications or public relations departments of the organisation. The plan may be distributed in hard copy and available in electronic format on the organisation's website. An abbreviated form may be available and displayed at strategic points around the organisation including in public places.

As discussed earlier in this chapter, Merchant (2010) and others suggest that a whole of organisation approach to strategy development results in a greater level of buy in and will make the execution of the plan easier and smoother. However, whatever the level of organisation wide involvement in the development of the strategic plan it needs to be relayed to all employees through their managers so that it feels real, achievable and valuable to the customer. Tools such as visual aids, using "strategy maps", can help frontline

employees see how the organisation plans to achieve its mission. Metrics are an invaluable accompaniment to strategy communications and can bring more meaning into the "what" and "why" for all employees.

### 3.6.2 Monitoring and Reporting on the Strategic Plan

The reporting on the strategic plan and its associated business or operational plans will vary between organisations. As a general rule in healthcare the responsibility for this will sit with the CEO and the Executive with reporting up to the Board of Management (or equivalent). Generally hospitals will be required to provide reporting on their Strategic Plans to government, for example, through their annual Statement of Priorities.

Many organisations now use a Balanced Scorecard (BSC) approach for tracking and monitoring achievements against their strategic plan as first described by Kaplan and Norton [18]. The high-level components of a scorecard and their relationship to the strategy are illustrated in Fig. 3.7.


**Fig. 3.7** Illustration of the range of components that may be linked to the organisational vision and strategy that may be reflected via the Balanced Score Card

The BSC approach supplements the traditional financial measures with criteria measuring performance from other aspects. These are listed below with examples relevant to the healthcare sector (see also Table 3.4 for how the BSC may be displayed incorporating a traffic light system to highlight areas of greater concern). Clearly however these are only a small number of indicative measures and these are very specific to the organisation and the regulatory environment. The details of how these measures are clustered and presented needs to be tailored for the organisational context, and the targets may be prescribed by external parties or agreed on an internal basis, whether this be historical or aspirational.

- *Financial*: For example, operating +/−capital expenditure versus budget. This might also include parameters that relate directly to revenue including in patient or surgical activity (for example, WIES or weighted inlier equivalent separations which are measures of casemix funding in Australia as shown in Table 3.4). Specific performance for areas of expenditure such as salaries and wages, or agency or locum staff expenditure may be included.
- *Access* (for patients): Metrics may include waiting times and lists, achievement of episodes of clinical activity and performance against externally established targets.
- *People and culture*: This can cover a wide range of parameters such as leave (particularly tracking outstanding leave balances and sick leave), training and education metrics, and occupational health and safety measures relating to employees. It might also include monitoring of staff credentialing.
- *Quality and safety*: Again a wide range of measures may be included such as monitoring of serious of critical clinical incidents and infection related parameters. Consumer feedback, patient experience and consumer involvement might be included here.

The BSC can cascade down from the whole of organisation level to divisional, departmental, team or individual. Ideally it should be formatted

**Table 3.4** Example of the construct of a Balanced Score Card

| | | | Month | | | YTD | | |
|---|---|---|---|---|---|---|---|---|
| | | | Actual | Target | Variance | Actual | Target | Variance |
| Financial | WIES achievement | | | | | | | |
| | Operating result surplus (deficit) ($ 000 s) | | | | | | | |
| | Operating result as % total revenue | | | | | | | |
| | Salaries and wages expense ($ 000 s) | | | | | | | |
| | Agency expense ($000 s) | | | | | | | |
| | Debtors days | | | | | | | |
| | Creditors days | | | | | | | |
| Access | New outpatient (OP) appointments | | | | | | | |
| | Review OP appointments | | | | | | | |
| | Waiting list for new OP appointments | | | | | | | |
| | Emergency department length of stay >24 h | | | | | | | |
| | Emergency inpatient beds <8 h | | | | | | | |
| | Emergency triage seen in time (%) | | | | | | | |
| | Elective surgical waiting list (ESWL) | | | | | | | |
| | ESWL overdue patients | | | | | | | |
| People and culture | Sick leave as % hours worked | | | | | | | |
| | Excess annual leave hours | | | | | | | |
| | Excess ADO hours | | | | | | | |
| | Performance appraisals completed within 12 months (%) | | | | | | | |
| | Mandatory training up to date (%) | | | | | | | |
| | Staff OHS incidents (n) | | | | | | | |
| Quality and safety | Critical incidents (severity 1) | | | | | | | |
| | Critical incidents (severity 2) | | | | | | | |
| | Central line infections (n) | | | | | | | |
| | Hand hygiene compliance | | | | | | | |
| | Post-operative infection rates (%) | | | | | | | |

so that it can be expanded or diminished to suit the audience. For example, the BSC presented to the Board and Executive will cover the high-level critical components, particularly those reflecting the greater risks within the organisation. However, the BSC presented to lower level governance committees or to individual Divisions or Departments may include a greater level of detail which is targeted at their specific purpose or activities.

## 3.7 Key Success Factors for Strategic Plans in Health or "Why Strategic Plans Fail"

Beckham [19] proposes there are a number of key characteristics of an effective strategy:

- *Sustainability*: The effects of the strategy are sustained over a time horizon that is long relative to lesser initiatives. Beckham suggests

that the plot of a strategy is bell curve shaped with the height and width of the bell curve reflecting the strength of the strategy.
- *Performance improvement* based on agreed organisational key performance indicators: The strategy creates significant value above what existed before. This does not necessarily relate predominantly to financial factors but access, quality of care, ethical practice and stakeholder/ consumer satisfaction.
- *Quality:* Clearly this links in with the previous characteristic. Strategies should also be evidence based where adequate evidence exists.
- *Direction:* This may not necessarily be linear but may bend and weave according to uncertainty and resistance that is encountered.
- *Focus:* or prioritisation. There are often many activities that could be reflected in a strategic plan but some will be more important than others at any given point in time. It is impossible to pursue all suggestions at once and any attempt to do so will generally end in failure.
- *Connection:* Components of the strategic plan have a high level of interdependence and synergy.
- *Importance:* While Beckham notes that importance is a subjective notion, there needs to be some contextualisation of strategies. A strategy needs to be supported by the argument that it is essential to sustainable success and has the highest impact on the business.

There are many reasons why strategic plans may fail. Some of these reasons are listed below along with some suggested mitigation strategies:

- *Failure to involve the appropriate people:* This can be avoided by a robust stakeholder analysis process as described earlier in the chapter. Consequences of this may be that frontline concerns are not heard: every failed strategy has people on the frontline who expressed concerns. These concerns should be heard and dealt with, and then people need to get on board once these concerns are resolved one way or another and the strategy has been finalised.
- *Cultural resistance:* There is cultural resistance from within or outside of the organisation. This can result in delays, waste or even total derailment of a strategic priority. It can also be minimised by careful and appropriate stakeholder engagement from the early stages of planning, rather than as a real or perceived token gesture late in the process.
- *Flawed group dynamics*: Unresolved conflicts remain or there is lack of decision-making or compromise. The use of an expert facilitator or strategic planner during the consultation process can mitigate against this risk.
- *Wrong time and place:* The plan was wrong for the time and or the environment. This can be avoided by ensuring that all of these factors are identified and carefully considered in the early stages of the planning process as described earlier in the chapter, for example, by using the SWOT or PEST analyses or a related process.
- *Ineffective leadership*: Beatty [20] quotes statistics that fewer than 10% of leaders exhibit strong strategic skills. Beckham also discusses that generally senior management in the healthcare industry tend to have a more operational and administrative focus. Clearly senior leaders need to take the responsibility for the development and delivery of a strategic plan but, again, assistance maybe provided by an experienced strategist either as a regular member of the team or in a consultancy role.
- *Poor adaptability or flexibility:* If the strategic plan is too rigid, this can inhibit flexibility, creativity and innovation. There should be the capacity even within the life cycle of the plan to adapt the course.
- *Imbalance between visioning and operationalisation*: Insufficient detail in design, financials, logistics or conversely too much time spent on how the plan will be operationalised and insufficient vision incorporated. This can result in failure to implement the strategic plan.
- *Isolation:* of the strategic plan from other organisational decision-making processes such as budgets and human resources management.
- *Lack of clear metrics*: Not creating enough, or the right, measures to evaluate the success of goals or objectives. Metrics need to be precise and relevant as described earlier in this chapter.

- *Over planning or poor planning*: Too much emphasis on the formal process of planning rather than the implementation. Keep it relatively simple, be inclusive of stakeholders, seek feedback throughout the process and ensure that there is a clear implementation process.

*Top heavy or too lengthy approach:* Too much of a top down approach can be problematic as discussed earlier, and if the process is too lengthy participants may lose interest and momentum. Both of these two problems can be avoided by ensuring an efficient but effective consultation process with clear timelines and a well thought through stakeholder engagement approach.

Finally, Sull, Homkes and Sull describe how to "bust" 5 "myths" associated with strategic planning [21]:

- Myth 1: Execution equals alignment. Most executives and managers believe that if their strategy is translated into performance measures and objectives that are being met, then their strategy should be successful. However, their research suggests that only 9% managers say they can rely on colleagues in other areas of the organisation all of the time and approximately 50% say they can rely on them most of the time. Coordination and breakdown of the "silo mentality" where individual sections of the organisation are inward looking and only concerned with their own outputs and outcomes, rather than recognising the interdependencies with other areas, is a critical factor in success. It demonstrates the requirement for excellent horizontal as well as vertical integration.
- Myth 2: Execution means sticking to the plan. As described earlier in this chapter, flexibility and real-time adjustment is required to deal with unexpected factors that arise during the lifetime of the plan and which have the potential to impact on its execution.
- Myth 3: Communication equals understanding. Quantity of communication does not compensate for quality. The strategy needs to be meaningful and translatable for staff at all levels of the organisation as well as external parties.
- Myth 4: A performance culture drives execution. Most organisations are good at recognising and rewarding good performance, but many struggle to consistently address underperformance. As well as rewarding execution, other strengths such as agility, teamwork and ambition should be recognised. In this study only 20% of respondents felt that behaviour that resulted in a manager achieving their own local objectives but failing to collaborate with colleagues outside their area of direct influence would be addressed and 20% believed it would be tolerated.
- Myth 5: Execution should be driven from the top. Execution should be guided from the top but best sits with "distributed leaders" in particular those who are middle managers who run critical businesses and functions within the organisation and technical experts who deliver key functions across business.

## 3.8 Reflections and Things to Try

In this chapter you learned:

Strategic planning provides a high-level roadmap for an organisation but must be aligned with the operational aspects of the entity.

Development of a mission statement, vision statement and organisational values are the first step to developing the strategic plan.

Identification and engagement of key stakeholders is an early and critical component of strategic planning.

Tools to assist the development of the plan including a SWOT analysis a PEST or PESTLE analysis and other models such as Porters Five Forces model.

After consultation and analysis has occurred to inform the plan, clear goals and objectives must be developed and the plan aligned with the business and operational plans for the organisation.

On completion an implementation plan is required including a launch and communications: the balance of effort between planning and implementation is important as often too much time is spent on planning with too little focus on implementation.

Key factors for a successful strategic plan include sustainability, a clear value proposition,

flexibility and prioritisation as well as relevant stakeholder consultation and engagement, not just in the development of the plan but throughout its life.

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# Clinical Service Planning

4

Susannah Ahern

**Learning Objectives**
By the end of this chapter, the learner should be able to understand:

- How clinical service planning aligns with other types of health service planning.
- The external and contextual factors that influence clinical service planning.
- The key stakeholders involved in clinical services planning.
- Governance arrangements that underpin clinical services planning.
- The key project components of clinical services planning.
- The key information requirements of clinical services planning.
- Key clinical service planning tools such as self-sufficiency, capability and capacity.
- How health service partnerships support clinical services planning.
- How to develop a consultation and communication plan.
- How risk assessment assist in determining clinical service priorities.
- The key outputs of clinical services planning.
- The importance of regular review and evaluation of clinical services plans.

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## 4.1 Introduction

Clinical service planning is an emerging science that may be defined as identifying 'the priorities and strategic directions for clinical services' [1]. Compared with many of the other types of planning, clinical service planning usually adopts a longer term (e.g. 10 years) perspective [2]. Despite the importance and regularity with which health service clinical service planning is undertaken, there is very little literature regarding how to best manage the process. Instead, clinical services planning is largely informed by state and territory government-based frameworks and guidelines, and as a collaborative project between the health service and the relevant Department of Health.

Clinical service planning is a complex activity. The external environment is constantly changing, and the primary role of health services in rapidly responding to the acute healthcare needs of their community is a challenge for longer term planning. Health services and the external environment in which they are based are constantly evolving in response to a large number of factors, including:

- Population health, including the changing burden of disease to one with a focus on ageing and chronic disease management.
- Socio-demographic changes, including changing immigration patterns.


E. Loh et al. (eds.), *Textbook of Medical Administration and Leadership*,
https://doi.org/10.1007/978-981-10-5454-9_4

- Socio-economic status and employment patterns.
- Increasing access to health information and changing healthcare expectations.
- Health services provided by other public and private hospitals.
- New technologies and services available.
- Workforce changes including provider availability.

Clinical service planning occurs within the context of a heavily regulated environment, with funding from multiple sources including state and commonwealth governments, private health insurers, various government agencies, and patients themselves. One of the challenges for health services operating in this environment is to focus not only on responding to the community's tertiary healthcare needs, but to also support service development that focus on primary and secondary disease prevention.

This chapter is written from the perspective of organisation-wide (strategic) clinical service planning of a large public health service, but many of the principles are applicable to alternative settings such as local health districts, private health services, or community health services. In these instances, the specific services involved in planning, the leadership and consultation process may differ, but many of the key components of the process remain the same.

Service planning usually results in a key guiding document, but more importantly it is a continuous process. It is a process of assessment, consultation, partnering, leadership, and evaluation. It is a process of confirming the health service's strategic direction and vision, and of aligning its service operations with this. It is a process of community engagement and of continuous improvement. It is a process of constant renewal.

## 4.2 Content

### 4.2.1 Definitions

There are a number of planning processes that occur concurrently and that inform each other—some of the key planning processes being:

- *Strategic Planning*—defining the overall vision and mission for the health service, i.e. its role, relationship with the community and other key stakeholders, and values that support its approach to its activities—see Chap. 3.
- *Clinical Service Planning*—defining the clinical service profile of a health service over a defined period, including its capability and capacity at an organisational, site and/or unit level. It will broadly define the 'what' in terms of clinical service profile, and the 'how' in terms of guiding principles and models of care. The services comprised will generally include some or all of primary and preventive services, ambulatory care, acute care, subacute care and mental health.
- *Capital Planning*—defining the key capital investments required by the health service over a defined period to support achievement of its strategic and clinical service plans.
- *Workforce Planning*—defining the key workforce requirements of the health service over a defined period to support achievement of its strategic and clinical service plans—see Chap. 12.
- *Business/Operational Planning*—defining the financial and operational requirements for the health service or clinical unit over a defined period to support achievement of its strategic and clinical service plans—see Chap. 13.

It is important that these plans align with and inform each other (Fig. 4.1). Changes in one planning document need to be reflected in updates to other planning documents.


**Fig. 4.1** The inter-relationships between health service planning processes

## 4.3 Governance of Planning Process

Initially, the scope (breadth and depth) of the service planning exercise needs to be defined by the health service Board and Executive usually in conjunction with the relevant jurisdictional Department of Health. Organisation-wide (strategic) clinical service planning involves the development of a high-level guiding document that provides broad strategic direction under which multiple specific clinical service plans may be developed. For strategic clinical service plans, generally the scope includes the breadth of clinical service delivery across the health service, but not necessarily down to individual unit clinical service plans. A Terms of Reference for the clinical planning exercise needs to be developed that reflects this.

For public health services, strategic clinical service planning is a collaborative process between the relevant state Department of Health and the organisation (health service), and this needs to be reflected in the membership of the Steering Committee set up to oversee the process. The Steering Committee is often chaired by the health service CEO and has Department of Health representation to ensure buy-in to the process and final plan. The Steering Committee should also include the health service Executive team and key clinician leaders to ensure that the overall clinical service vision is articulated in the plan.

The Terms of Reference of the Steering Committee includes defining the scope of the planning exercise; endorsing the funds and resources available to develop the plan; endorsing the consultation and communication plans; endorsement of key project milestones and regular review against these; review of the draft plan; and endorsement of the final plan. The Steering Committee meets regularly throughout the planning process (e.g. 3-monthly), and receives updates from the Project Team.

Service plan development is a complex undertaking and generally requires the services of an experienced population health services planner [3] as well as dedicated in-house resources. These personnel require expertise in service planning and project management, and the time to meet with key stakeholders throughout the plan development process. Together with an organisational Executive Sponsor(s), they form the Project Team that develops the project and clinical service plans and reports regularly to the Steering Committee (Fig. 4.2). A time period of approximately 12 months is generally required to develop a plan from the initial meeting through to Board endorsement and final document production.

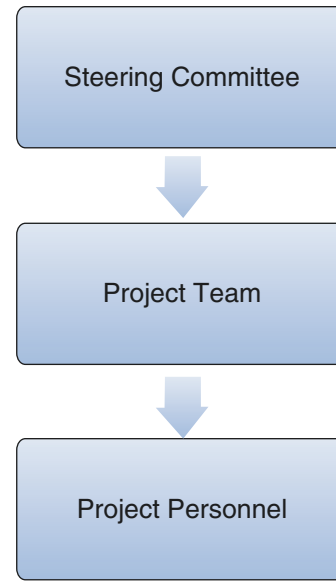


**Fig. 4.2** Governance of planning process

## 4.4 Regulatory, Policy and Funding Context

Public health services operate in a highly regulated environment. Health services must comply with state-based legislation relating to the delivery of public health services for their specific local government areas. Additionally, individual health services develop agreements with state governments regarding annual activity and performance measures to meet funding requirements. Legislation relating to occupational health and safety requirements, enterprise bargaining agreement requirements, and accreditation requirements all impact on the clinical services that may be able to be delivered across a health service or on a particular site. Broader regulatory reform such as in the aged care, mental health and disability sectors also impact on funding models and service delivery. State and territory government policy and framework documents may also heavily influence the objectives and direction of overall and service-specific clinical service planning.

Public health services receive funding via a range of sources, and it may be useful as part of the clinical service planning process to identify the current and future potential sources of funding related to particular services. Generally the main source of funding for acute inpatients of public health services is activity-based funding from the state and Commonwealth government. Alternatively, patients may access services in the public system as private patients where funds are derived from the patient directly, private health insurance, or other government-funded programmes such as the Transport Accident Commission (TAC), Work Cover, or the Department of Veteran Affairs (DVA). Subacute inpatient services and mental health services have been funded based on occupied bed days but are currently moving towards an activity-based model. Public emergency department patients are funded generally through activity-based systems, and increasingly hospital-based ambulatory services are being funded through Medicare via the Medicare Benefit Schedule (MBS).

### 4.4.1 External Context

When undertaking service planning, the health service needs to consider the health profile of its local and catchment community, factors that are likely to impact on community health both broadly and locally, identify specific services required, and aim to develop sustainable service models to respond to these local needs. Identification of the health service's catchment area, its boundaries and demographic features, access to public transport, and access to other local and specialist health facilities is important in identifying local patterns of health service-seeking behaviour. Patient inflows and outflows (to and from other local government areas/health service catchments) also need to be considered in planning, particularly for catchments that may experience significant seasonal variation such as peak demands in the holiday season.

Local population analysis includes current population and future projections, as well as socio-demographic information including population age and projected ageing, socio-economic status (including proportion with private health insurance coverage) and health characteristics (such as risk-taking behaviour, vulnerable children and prevalence of diseases). This data can be provided by state government departments and agencies as well as academic institutions and other health-related organisations.

### 4.4.2 Project Management

The components of the Planning Project (Fig. 4.3) generally include:

- Consensus regarding project scope, team membership, timelines and resources available.
- Development of guiding planning principles.
- Background document review—internal and external, including previous clinical service plans or service reviews/recommendations.
- Current clinical service documentation.

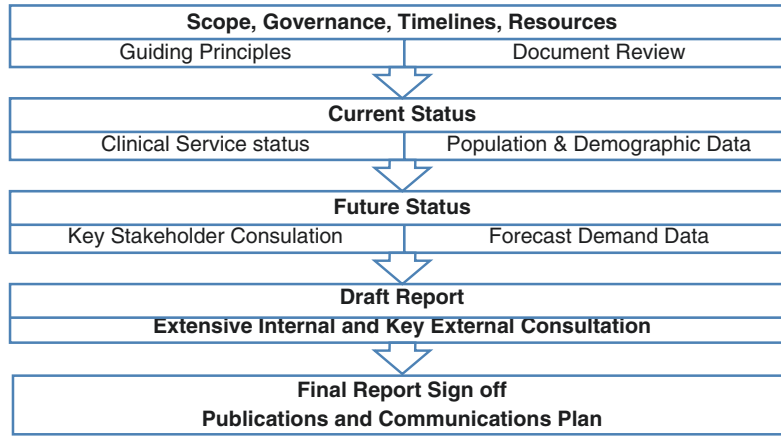


**Fig. 4.3** The planning process

- Data review—including demographic, population, socio-economic, health service utilisation, current demand.
- Demand projections.
- Internal consultation regarding data findings.
- Development of draft report.
- Internal and key external stakeholder consultation (including Department of Health).
- Finalisation of report.
- Sign off by Board Chair.
- Publication and communication of Plan.

A Communication/Consultation plan should also be developed that aligns with and supports the Project Plan.

### 4.4.3 Planning Principles

At the commencement of the planning process, the Steering Committee develops a set of planning guiding principles, aligned with the organisation's strategic plan, vision and values, to assist in guiding the direction of the planning process. Planning principles may include statements regarding the role of the health service in the local community as well as any broader role, its way of engaging with its consumers, its approach to new service models and introduction of new technologies, the development of partnerships to support service capability, and its approach to infrastructure management to maximise service delivery. For example, South Australia's Health's Transforming Health Principles (p. 3) are [4]:

- Patient Centred
- Accessible
- Safe
- Efficient
- Effective
- Equitable

### 4.4.4 Planning Frameworks and Data

Multiple sources of information and data should be identified and utilised to determine the current status, and future clinical service demand projections. These include:

#### 4.4.4.1 Key Planning Frameworks/ Documents

Key documents that you should consider include:

- Government Health Strategy and Policy documents (State/Territory/Commonwealth governments).
- Health Service Capability (Role delineation) Frameworks (State governments).
- Capital Planning & Policy documents (State governments).
- Local Health Area or Clinical Network documents (State governments).
- Other government documents.
- Planning documents relevant to other local providers (public, private).
- Other documents identified from a literature review.

- Internal documents—business/operational plans, strategic plans, workforce plans.
- Previous clinical service plans/planning documents.

#### 4.4.4.2 Data (e.g. State Department of Health)

Key sources of data are:

- Socio-demographic data
- Inter-area flows
- Population growth projections
- Projected service demand

These will be discussed further below. Qualitative data may also be useful to identify current service 'gaps/issues' and future service priorities, e.g. results of previous consumer and staff feedback.

### 4.4.5 Current Clinical Service Profile of Health Service

For Strategic Clinical Service Planning, an overview of current clinical services should be documented. For each service this should briefly describe the clinical discipline, the target population and clinical conditions managed, the sites and settings in which it is undertaken (inpatient, ambulatory, use of theatre/procedure rooms/birthing suites), annual activity, any relevant service partnerships, models of care, workforce requirements, and specific support services required. Current services should be identified by discipline and by site, and any gaps in service delivery should be noted, including explanations if appropriate, e.g. low-volume, highly specialised procedures may be more appropriately managed at a higher-level facility. In particular, referral pathways to particular services should be noted, so that any potential access and transfer issues may be identified.

Current status should also acknowledge current workforce and support services. Health worker (medical, nursing, allied health) recruitment, retention, skills and expertise, and emerging health workforce requirements should be noted. Clinical support services (radiology, pathology, pharmacy) significantly impact on service operations and service development. In particular, investment in radiology services is frequently required to support increased service capability particularly in the surgical and procedural specialties. Timely access to routine radiology and pathology is also a requirement for acute clinical services, particularly when located away from the main health service campus, and to a lesser extent, for subacute and ambulatory services.

## 4.5 Planning Tools

There are a number of planning tools that can be used to determine the adequacy of the current clinical service profile and activity, and to assist in planning to address potential service gaps. These can be considered as tools related to self-sufficiency, capability and capacity, which together inform clinical service planning decisions (Fig. 4.4).

### 4.5.1 Determining Self-Sufficiency

As a health planning concept, self-sufficiency is a tool that considers the extent to which a health service responds to the local inpatient demand of its primary catchment community. Public self-sufficiency may be defined as the percentage of all public separations for the catchment community provided by that particular public health service. Appropriate levels of self-sufficiency may

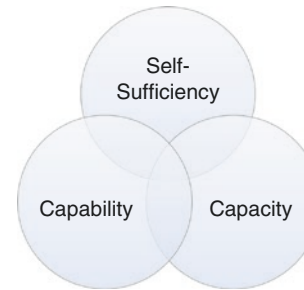


**Fig. 4.4** Clinical service planning tools

vary between catchments depending on the availability of alternative providers, including private sector, and the local rates of public health insurance. Self-sufficiency data for the relevant catchments may be provided by the state Department of Health. Once target levels of self-sufficiency are determined, where forecast public inpatient separations fall below these rates for specific services, this may represent a service gap that the health service may need to address.

### 4.5.2 Determining Capability

Health service capability may be considered as the level of complexity of care that can be provided by the health service's clinical services, support services, workforce and other related infrastructure including access to other health partners. There are a number of clinical service capability frameworks that can be used to describe where a health service's capability fits within the broader state or national context, such as the National Maternity Services Capability Framework [5]. Developed in 2012 and endorsed by the Australian Health Ministers Advisory Council (AHMAC) in 2013, this framework provides a rigorous methodology to assist in woman-centred maternity service planning and improve risk management in maternity care (p. 4). Similar to other capability frameworks, this national maternity framework defines levels of service by describing a set of criteria which identifies minimum requirements for each level of service provision, and by doing so it supports not only service planning but also service quality, safety and co-ordination.

New South Wales Ministry of Health utilises a Role Delineation Guide for clinical service planning for public hospitals and health services as its guiding capability framework. The original guide was produced in 2002 [6], and has been recently updated in 2016 [7]. The guide defines role delineation as providing a framework that describes the minimum support services, workforce and other requirements for clinical services to be delivered safely ([6] p. 5). The 2016 NSW guide provides role delineations for clinical services (e.g. emergency, medical and surgical) and clinical support ('core') services (e.g. pathology, pharmacy, diagnostic imaging) as shown in Table 4.1.

**Table 4.1** Clinical and core (clinical support) service planning categories

| Clinical services | Core services |
|---|---|
| 1. Emergency Medicine | 1. Anaesthesia and Recovery |
| 2. Medicine | 2. Operating Suite |
| 3. Surgery | 3. Close Observation Unit |
| 4. Child and Family Health Services | 4. Intensive Care Service |
| 5. Mental Health and Drug and Alcohol Services | 5. Nuclear Medicine |
| 6. Aboriginal Health | 6. Radiology and Interventional Radiology |
| 7. Community Health | 7. Pathology |
| | 8. Pharmacy |

Data from NSW Ministry of Health, 2016

Health services use this Guide to assess their role level for individual clinical services and compare this with the clinical support (core) services required. This can be used for identifying support service gaps/requirements, or for reassigning clinical service role levels [8]. Similar health role delineation/capability frameworks have been developed in Queensland [4, 9], South Australia [4], and Western Australia [10, 11].

The Queensland Clinical Services Capability Framework for public and licensed private health facilities [4] categorises clinical services into one of six capability levels (Fig. 4.5), with Level 1 managing the least complex patients and Level 6 managing the highest patient complexity. Generally, service levels build on previous service level capability, so that a service nominated as having level 6 capabilities should have all the capabilities of the previous levels in addition to level 6 capabilities. Specific clinical services with Level 6 capabilities may be statewide services, and hence may require assessment and review of specific clinical populations beyond the local catchment. A brief summary of service levels according to this Framework is outlined in Table 4.2.

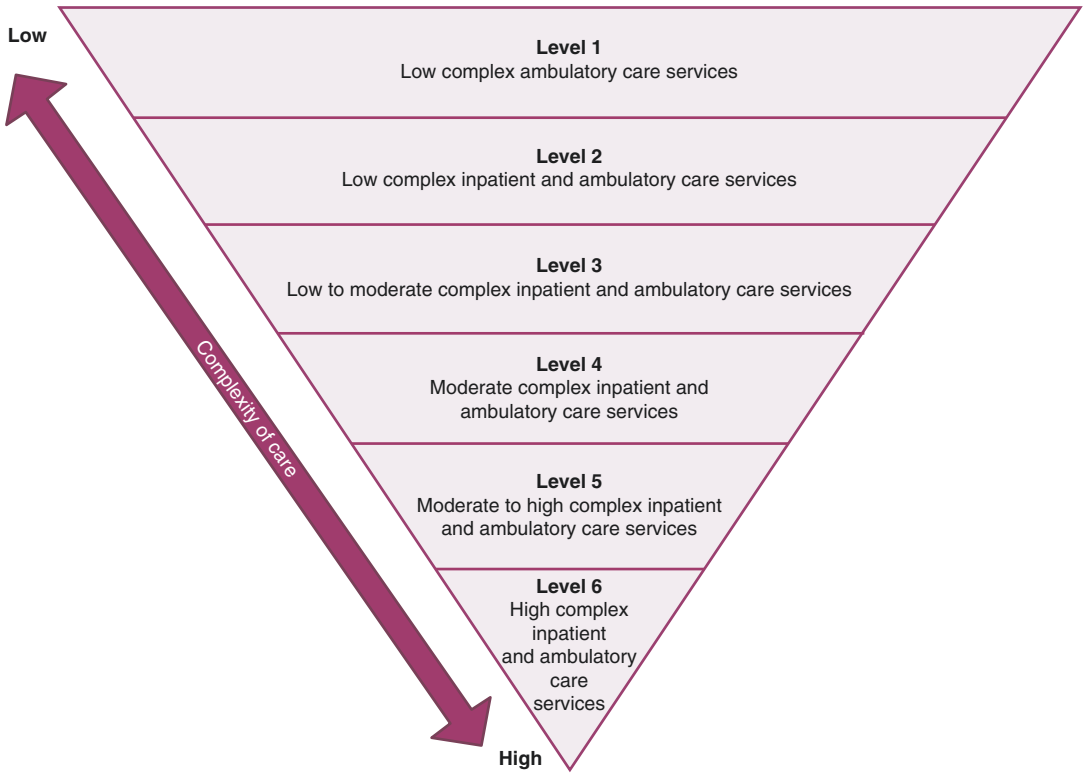


**Fig. 4.5** Queensland Health Service Capability Framework—Service Levels by Complexity of Care. (From Queensland Health Service Fact Sheet, with permission)

**Table 4.2** Queensland health service capability framework—service levels by complexity of care

| CSCF service level | Description |
|---|---|
| Level 1 service | • Provides *low-risk* ambulatory care clinical services *only*.<br>• Predominantly delivered by health providers such as registered nurses (RN) and/or health workers rather than a general practitioner (GP). However, a visiting GP may intermittently provide a medical service.<br>• Patients requiring a higher level of care can be managed for short periods before transfer to a higher-level service. |
| Level 2 service | • Provides *low-risk* inpatient and ambulatory care clinical services.<br>• Delivered mainly by RNs and GPs with admitting rights to the local hospital.<br>• Some limited visiting/outreach allied health services provided.<br>• Manages emergency care until transfer to a higher-level service.<br>• May have a university affiliation including an education and teaching commitment. |
| Level 3 service | • Provides *low-* to *moderate-risk* inpatient and ambulatory care clinical services with access to limited support services.<br>• Predominantly delivered by GPs (available 24 h a day, 7 days a week but not necessarily on-site) and RNs including midwives and/or nurses with specialty qualifications, possibly inclusive of visiting day only specialist services as well as low-risk surgery and/or minor procedures, and an education and training role (longer than day only may be arranged).<br>• Manages emergency care and transfers to a higher level if required.<br>• No intensive care unit, although the facility may have access to a monitored area.<br>• May have a university affiliation including an education and teaching commitment. |

**Table 4.2** (continued)

| CSCF service level | Description |
|---|---|
| Level 4 service | • Provides *moderate-risk* inpatient and ambulatory care clinical services delivered by a variety of health professionals (medical, nursing, midwifery and allied health) including resident and visiting specialists.<br>• Medical staff on-site 24 h a day, 7 days a week and an intensive care unit (maybe combined with a cardiac care unit) with related support services also available on-site.<br>• If higher level or more complicated care required, patients may need to be transferred to a level 5 service.<br>• Some specialist diagnostic services also available.<br>• Has a university affiliation including an education, teaching and research commitment. |
| Level 5 service | • Manages *all but the most highly complex* patients and procedures.<br>• Acts as referral service for all but the most complex service needs which may mean highly complex, high-risk patients require transfer or referral to a level 6 service.<br>• Has strong university affiliations and major teaching with some research commitments in both local and multi-centre research. |
| Level 6 service | • Is the *ultimate high-level service* delivering complex care and acting as a referral service for all lower-level services.<br>• Can also be a state-wide super specialty service accepting referrals from across the state and interstate where applicable.<br>• Generally provided at a large metropolitan hospital.<br>• Has strong university affiliations and major teaching and research commitments in both local and multi-centre research. |

From Queensland Health Service Fact Sheet, with permission

Many health services will evolve over time to gradually increase their local capability to provide for the more complex care needs of their local communities. However particular sites or health services with smaller populations may continue to rely on health service partnerships to provide pathways for specialised service care. Formal identification and development of these service partnerships is an important component of service planning for all health services. This may include specialist referral pathways, shared staffing arrangements, access to specific infrastructure, and academic partnerships to attract and retain specialist staff. Formal partnerships allows for access to expertise and resources across the health sector, and can include partnerships with tertiary and quaternary public health services, as well as local private providers including private health services and primary care partnerships.

### 4.5.3 Determining Capacity

Forecast data may make projections regarding numbers of separations (inpatient activity), ambulatory activity, and infrastructure utilisation (e.g. theatres, birthing suite requirements) across the health service, and by individual clinical services. This should be compared with existing capacity to determine gaps and capacity priorities. Forecast projections may be adjusted (undergo sensitivity analysis) by adopting various assumptions regarding clinical service efficiency via models of care such as:

- Inpatient substitution models, e.g. subacute patients with early discharge to ambulatory rehabilitation services; paediatric inpatient substitution by ambulatory care services
- Reduction in multi-day beds and increase in same-day admissions
- Home-based models of care, e.g. renal dialysis and palliative care services

Aged persons are known to utilise health services more, require more inpatient admissions, and require longer inpatient stays. Preventative care processes including community care, integrated ambulatory care services, and elective admissions (e.g. to geriatric evaluation and management units) are more likely to be required with an ageing population. Additionally, following acute inpatient admissions, aged persons are more likely to require

a period of rehabilitation. These factors all impact on service utilisation and demand.

Emergency care demand is frequently highest by patients on both ends of the age spectrum—the very young and the very old. As these utilisation trends are expected to continue, health service emergency departments will continue to be required to adopt strategies to substitute for admissions, including use of short stay areas (particularly for routine paediatric presentations); discipline-specific services based in or near the emergency department, e.g. chest pain management services and mental health management services; and diversionary models of care including co-located general practice clinics, Hospital in the Home and Hospital Admission Risk Programs that assess patients presenting to the emergency department.

Models of care may have a significant impact on the use of scarce resources including multi-day and same-day beds, consultation rooms, and ED cubicles; and preventative care programmes for management of patients with chronic disease will increasingly be required to be developed in partnership between health services and community providers. Models of care are strategic policies related to a disease grouping, population subgroup or service need based on an evidence-based framework describing the right care, at the right time, by the right person/team in the right location across the continuum of care [10]. These should be taken into consideration in planning for future demand needs.

Forecast modelling of demand for inpatient and ambulatory services may be undertaken by state health departments. Modelling methodology may make a number of assumptions, and as a result there will be limitations to the data, particularly for data beyond the immediate forecasting period. Therefore forecast data should be validated during the consultation process, with clinicians, community members and local stakeholders.

## 4.6 Support Service Planning

Strategic clinical service planning thus identifies health service capability needs and future capacity requirements, and compares this with current clinical service delivery to identify future areas of service and infrastructure development. Diagnostic support service requirements are increasingly important for many clinical disciplines, including subspecialty surgery, procedural medical specialties, and cancer care. Depending on clinical service demand, access to such services may be through in-house resources or access via partnerships, public or private. Issues regarding financing of infrastructure and ongoing revenue streams may need to be considered in business cases to support diagnostic and treatment infrastructure investment.

Workforce requirements and roles are also likely to change to meet emerging service demands. Nursing roles include substitution models and expanded scope of practice models such as nurse practitioners. Allied health roles are increasingly supporting early discharge models and ambulatory care substitution models. Medical service delivery depends on a mix of consultant specialist and junior doctor workforce, the latter frequently dictate by vocational College training requirements, which must be considered. Opportunities for workforce progression and retention should also be considered in the development of supporting health workforce plans.

Community representation and the engagement of local stakeholders and providers is a key enabler of clinical services planning. Where possible, services should respond to local community need, should be person-centred, should be accessible, and should have infrastructure appropriate to the purpose and population. Local providers may be more likely to engage with the health service if they see the clinical services plan as meeting local service needs and supporting their role in the continuum of patient care.

Information technology is another enabler that has the potential to influence models of care and service delivery, increase efficiencies, provide better and more consistent quality of care, and improve communication and collaboration. Its role in supporting patient care and clinical service planning is integral to effective clinical service delivery.

### 4.6.1 Site Planning

Health service sites typically evolve in response to the service demands and models of care of the time, and should be regularly reviewed to ensure they meet the service needs of the future. Specific sites generally fulfil one or both requirements of meeting the local population clinical service needs, and/or providing a particular clinical service across the health service/catchment (e.g. a subacute service). Ageing infrastructure is a common issue with public health service sites, and options to renovate or rebuild may need to be considered. Individual sites should be reviewed and master plans developed based on clinical service planning for a defined period of the future.

Sites require certain economies of scale to be operationally efficient. For acute wards an operationally efficient number of beds is approximately 32, for mental health is approximately 20, and for subacute services is approximately 30 beds, to reflect optimal nurse staffing ratios [12]. An operationally efficient inpatient facility is generally a minimum of three wards, and an operationally efficient theatre suite includes a minimum of two theatres. Medium to high complexity theatre procedures require critical care capability, including radiology and pathology/blood transfusion services, and specialty critical care trained staff.

Consolidation of acute inpatient services to a minimum number of sites is generally required to allow for sufficient on-site support services. This may also include specialist and multidisciplinary ambulatory care services. Alternatively, community ambulatory services may be better provided separate to the acute site, in accessible settings associated with other community health and primary care service providers. Community rehabilitation services may benefit from being co-located with inpatient rehabilitation services and infrastructure.

Specific site plans will include clinical services provided, forecast capacity requirements and models of care, and any additional infrastructure or clinical support services required. Any proposed changes to site services requires considerable engagement with internal and community stakeholders to identify any potential barriers and to generate engagement. Health service-wide infrastructure including facilities for clinical training and research and non-clinical functions also needs to be considered within site profiles to ensure that these are located in conjunction with the most appropriate clinical services.

### 4.6.2 Prioritisation

Prioritisation of components of the service plan will require consideration of a range of factors including available funding and resources, clinical risk, current and future demand, changes in external environment, and local factors including local readiness for change. The impact of changes in one service on upstream and downstream services should be planned for in a coordinated manner, e.g. additional acute services may require communication with local primary care providers, additional ambulatory space, theatre infrastructure, bed capacity, and rehabilitation capacity. Infrastructure and staffing requirements need to be considered along all stages of the patient journey.

Immediate capacity issues may be a priority, particularly if performance targets are not being met, or if there are clinical risks associated with current service capacity. Immediate infrastructure needs may also necessitate changes in service models, where infrastructure cannot be immediately repaired or replaced. Beyond this, prioritisation should progress in a planned, staged manner, in co-ordination with state government or local partner support and specific funding availability where required. Planning initiatives may also be ranked or scored according to objective criteria to assist with prioritisation.

### 4.6.3 Consultation Process

Consultation is essential at all stages of plan development. The membership of the Steering Committee composition highlights that strategic planning of public health services is a joint partnership between the health service and the state

health department, and planning progress should be overseen and contributed to by this group.

If a project manager or external consultant leads the planning process, they will require the support and engagement of health service Executive and clinical leadership staff at every stage of the process. Developing an understanding of current clinical services, support services and workforce models and understanding the current site infrastructure and local cultures will form a solid basis on which to plan for the future. Meeting with internal and external stakeholders to ensure that this knowledge of the service and its strengths and weaknesses is accurate will determine the usefulness of future data and recommendations.

- Internal consultation will include meetings and presentations to key leadership groups—the Board, Health service executive, senior clinical leadership team, operational managers, site managers, diagnostic and support service leadership, workforce and human resource managers, infrastructure (capital and IT) managers; health service volunteers and community committee members.
- External consultation will include further consultation within the state health department, consultation with external health partners—public and private, primary and tertiary, local primary and community health providers, academic partners, local politicians and local community groups.

Consultation will need to occur during the information gathering phase, and once a draft has been developed, during the document consultation phase. Feedback on the plan will need to be provided through appropriate channels, and incorporated. Proposals for change may require sensitive leadership and more in-depth consultation with potential affected groups. Strategies may need to be developed to deal with any local or community concerns, including public relations and media management, and briefing of the state health department or Minister. Consistency in communicating the key messages is important, and key documents should be carefully managed during the consultation phases.

## 4.7 Finalisation and Implementation of Plan

Once a draft plan has been refined based on feedback of the stakeholders, it needs to be finalised and endorsed by the Steering Committee, and then by the health service governing body (e.g. Board). A comprehensive final version of the plan should be made available to senior health service executives and managers, and a summary version of key points of the plan is generally made available for the majority of internal and external stakeholders for reference. It may be appropriate to formally launch the plan to generate awareness.

The final clinical services plan needs to be reviewed against other strategic health service plans, including the health service strategic plan, workforce plans, operational/business plans, and infrastructure plans to ensure alignment. Once finalised it needs to be made available to be regularly referenced by internal and external stakeholders, and thereby incorporated into the development of future planning and operational documents.

The next stage of service planning is the development of discipline-specific clinical service plans following on from the over-arching service plan. These may be developed bottom-up, that is, by the relevant clinical leadership team, and undergo relevant internal consultation and review. Capital requirements may also need to be separately considered and evaluated.

A process for organisational review and prioritisation of service planning initiatives should be established to implement and regularly review the original clinical service plan. This should be a Board or Executive level governance group that sets service goals and priorities, and regularly reviews plan implementation progress. The plan should be a living document that is regularly reviewed and updated—this might include an annual informal review and a 3 or 5-yearly formal review. Regular communication regarding progress made in relation to the service plan will promote ongoing engagement and collaboration, as well as engender confidence in the planning process and delivery.

## 4.8 Ready Reckoner

- Health services need to undertake a broad range of planning activities to meet their future service obligations, including strategic planning, service planning, workforce planning, business and operational planning and many others. The service planning process involves utilising data, internal and external stakeholder consultation, and leadership from the governing body of the health service such as the Board and Executive, to develop a guiding document that informs planning for a defined period, and aligns with the other relevant planning processes.
- Clinical service planning involves an understanding of the demographic and population characteristics of the local community and local service utilisation patterns. This will identify how effective the existing service profile of the health service is in meeting community requirements, where gaps may exist either currently or in the future, and what is needed to plan to address those gaps.
- Clinical service planning considers not only how clinical services requirements but where they should be located, and the infrastructure and resources that should support them. Health service partnerships are an important component of health service planning that allows for access to resources and expertise in a resource-constrained environment.
- The governance of the planning process includes definition of the scope of the service plan, and establishment of a Steering Committee to oversee plan development. This may be chaired by the health service CEO and have Department of Health, health service Executive team and key clinician leader representation. Service plan development generally requires a project resource and the planning process may take up to 12 months. Clinical services plans should be underpinned by guiding principles that reflect the organisation's strategic plan, vision and values.
- Multiple sources of data and key planning frameworks should be identified and analysed to support the identification of current status and future service demand projections. Population health planning requires an understanding of the wider and local health context including population projections, and socio-demographic information including population age and rates of ageing, socio-economic status and health characteristics.
- An overview of current clinical services, including health workforce and support services, should be documented. An understanding of the regulatory and funding context is also required to ensure that service planning initiatives are compliant with legislative requirements, and are funded appropriately.
- Self-sufficiency may be used to consider the extent to which a public health service responds to the local inpatient demand of its primary catchment communities. Once appropriate levels of self-sufficiency are determined, where forecast health service activity falls below these rates this may represent a service gap that the health service may need to address.
- Health service capability may be considered as the level of complexity of care that can be planned as a result of the provision of clinical services, support services, workforce and access to other health partners. Clinical service capability frameworks may be used to identify the service capability for the health service and for individual clinical services.
- Forecast modelling of service demand may be undertaken by state health departments. Modelling methodology may make a number of assumptions, and as a result there will be limitations to the data. Models of care may have a significant impact on use of scarce resources and should be taken into consideration in planning for future demand needs.
- Health service sites should be regularly reviewed as to whether and how they meet the needs of the future. Specific site requirements will include clinical services provided, forecast capacity requirements and models of care, and any additional infrastructure or clinical support services required.
- Supporting requirements include an appropriately skilled health workforce, clinical support

services of sufficient capability, and information technology to support innovative models of care and efficient service delivery.

- Prioritisation of components of the service plan will require consideration of a range of factors, and the impact of changes in one service on upstream and downstream services should be planned for. Following immediate capacity or infrastructure requirements, service prioritisation should progress in a planned, staged manner.
- Consultation is essential at all stages of plan development. Any proposals for site/service change may require sensitive leadership and more in-depth consultation with potential affected groups. Strategies may need to be developed to deal with any local or community concerns, including public relations and political or media management.
- Following final consultation, the draft plan should be finalised and endorsed by the governing steering committee, and then by the health service governing body. A comprehensive final version of the plan should be made available to senior health service executives and managers, and a summary version of key points of the plan is generally made available for the majority of internal and external stakeholders.
- A governance process needs to be established to implement and regularly review the clinical service plan. Regular communication to health service stakeholders regarding progress made in relation to the service plan will support ongoing engagement and collaboration.

## 4.9 Reflections

Despite the significance and importance of clinical service planning, there is very little written in the academic literature regarding how to undertake clinical service planning in practice, how to implement clinical service plans once developed, and the effectiveness of these plans in achieving their aims.

Strategic clinical service planning sets out to develop a framework from which all other health service planning initiatives evolve through defining a set of high-level principles developed through stakeholder consensus. These principles should be pillars of the organisation and stand the test of time regardless of changes in organisational executive or clinician leadership.

Nevertheless long-term planning is increasingly challenging due to many unknown factors including funding, workforce availability, technology changes, and changes in government and agency regulation. Health services are therefore often required to undertake incremental or iterative clinical service planning, in situations where they have sufficient knowledge or funds to provide for an incremental change to a service for a fixed period of time. The service change is evaluated and, if effective, may be gradually extended when additional funds become available. As long as such planning processes are aligned with the overall guiding principles which are essential to ensuring effective investment decisions, they facilitate organisational adaptability and flexibility.

**Acknowledgments** The author's knowledge of this topic was significantly informed by collaboration regarding development of the Peninsula Health Strategic Clinical Services Plan 2015–2025, in conjunction with the Victorian Department of Health, Capital Projects and Service Planning Unit; www.capital.health.vic.gov.au, and in particular the advice of Narelle Campbell, Project Manager, South Eastern Service Planning Unit Department of Health & Human Services.

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# Health Systems and Policy

5

Jason Goh and Erwin Loh

**Learning Objectives**
This chapter aims to provide the reader with:

- An understanding of health systems according to its inputs, processes, outputs and outcomes (using the Australian Health System as an example), and the various ways in which health systems' performance may be analysed and influenced.
- An understanding of the different categories and forms of health policies, and some of the key players that influence health policymaking.
- A discussion of health policy challenges for medical administrators.

## 5.1 Introduction

There is no perfect health system. As societies change, health systems and policies evolve to adapt to the health needs of the society. The health needs of a society are often subjective and shaped by the social and political environment, so too are the health policies made to respond to these needs. As the outcome goals of these needs may be both convergent and divergent, health systems become more and more complex as new health policies are introduced into the existing health system.

Regardless of which sector within a health system you work as a medical administrator, you will find yourself in a position to influence health system and policy reform. It is important to develop a framework to understanding these complex connections within health systems to be able to effectively assist your clinicians with navigating through these systems to achieve the optimal results.

This chapter describes health systems according to its inputs, processes, outputs and outcomes. It also describes the economic and sociopolitical characteristics of a health system, using the Australian health system as an example. Some key concepts of analysing a health system are also described. In the second part of this chapter, some concepts on governing a health system and health policymaking are described. The chapter concludes with some discussion around health policy challenges for medical administrators.

## 5.2 Content

A health care system can be described by its key players: patients, providers, and payers. It can also be described by its inputs, processes, outputs, and outcomes [1].

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E. Loh et al. (eds.), *Textbook of Medical Administration and Leadership*,
https://doi.org/10.1007/978-981-10-5454-9_5

### 5.2.1 Inputs

Health system inputs can be broadly described by its workforce inputs, financial inputs, knowledge inputs, infrastructure inputs, and supply inputs. All these inputs are equally important, and are subject to health policy reform debates from time to time.

The workforce input of a health system includes all providers of care within the health care system. Commonly this refers to doctors, dentists, nurses, midwives, pharmacists, physiotherapists, psychologists, optometrists, speech pathologists, dieticians, social workers, occupational therapists, podiatrists, medical radiation practitioners, osteopaths, chiropractors, Chinese medicine practitioners and other practitioners who are paid to provide health care services; however there is increasing recognition of the unpaid health workforce such as carers, who are often unable to work due to their need to provide care to someone with severe disability or medical condition. Health policy reform considerations of the workforce input often revolve around improving the knowledge base of the workforce, balancing the demand and supply of workforce numbers, as well as maintaining the right skill mix of the health workforce.

The financial input of a health system includes all funding sources that pay for health services provided. Ultimately funding for health services is provided via taxation or via private contributions by individuals, either as health insurance premiums or out-of-pocket costs. Understanding the flow of health funding is important as it allows a medical administrator to understand the redistributive effects of various health financing policy decisions. Further discussion on health insurance funds is provided in Chap. 8, while further discussion on health economics is provided in Chap. 13.

The knowledge input of a health system includes all forms of knowledge that improves the processes, outputs and outcomes of the health system. Broadly speaking, knowledge input can be divided into explicit knowledge and tacit knowledge. Explicit knowledge refers to knowledge that is recorded and communicated through mediums such as research publications, disease registries, conference presentations, published policies and guidelines. Tacit knowledge refers to experiential and intuitive knowledge that is often hard to communicate, and tends to only be passed on through socialisation and mentoring. While the effect of health policy decisions on explicit knowledge inputs are easy to recognise, as a medical administrator it is important to consider the effect of such decisions on tacit knowledge inputs.

The infrastructural input of a health system refers to all facilities that are used to provide health care services. These include hospitals, pharmacies, laboratories, medical consulting centres and all the premises of every individual health practitioner. Financing of construction of such facilities tends to be quite different from the financing of the operation costs of these facilities.

The supplies input of a health system include equipment such as radiological and laboratory diagnostic machines, prosthetic devices, surgical equipment, drugs, vaccines and so on.

### 5.2.2 Processes

Processes within a health system typically involve a series of complex interactions between the health system inputs. From a health care consumer's point of view, Bergman, Neuhauser and Provost [2] identified five main processes: Keeping Healthy (prevention), Detecting Health Problems, Diagnosing Diseases, Treating Diseases, and Providing Good End of Life care. The quality of these processes is largely determined by the quality of the seamless interaction between the health care inputs. As an example, the ability of a health care team comprising of the general practitioner, specialist, and allied health professionals to ensure comprehensive information exchange as the patient transitions from one health facility to another determines the patients' perception of the value of health care services received.

The key to success of the interactions of health services inputs is ensuring the output is greater than the sum of its parts. This is not easily

achieved given the complexity of the health care system, as the interactions are usually non-linear, and often emergent or spontaneous [3]. In later sections of this chapter there will be further discussion about the role of health policymaking in influencing the interactions between health system inputs.

### 5.2.3 Outputs and Outcomes

It is important to distinguish between health system outputs and outcomes. Health system outputs refer to the products of interactions between health system inputs. Health system outcomes, on the other hand, refer to the impact health system outputs have on the patients. The main difference between outputs and outcomes is that outputs can be managed directly, whereas outcomes can only be managed indirectly through managing outputs. The correlation between outputs and outcomes is however not entirely straightforward, and attempts by policy makers to influence outcomes through controlling certain outputs may result in unintended consequences.

Outputs and outcomes of the health system vary depending on what type of health service is being provided and the setting in which it occurs. They also vary depending on whether one is looking at the health system from a macro or micro level. Examples of outputs include number of doctor consultations, hospital bed occupancy rates, and average length of stay in hospitals. Examples of outcomes include mortality and morbidity of patients, life expectancy at birth, quality of life, and satisfaction of service.

## 5.3 Some Unique Characteristics of a Health System

The characteristics of a health system are influenced by economic factors, and often evolve over time. Health systems of developed countries now tend to focus their economic resources on organising inputs to combat chronic diseases such as cardiovascular, cerebrovascular and oncological diseases, while health systems of developing countries with lower economic resources, despite having the same issues, also face the additional challenge of having to simultaneously deal with larger scale public health and personal health care problems such as infectious diseases, malnutrition and poor housing.

The sociopolitical values also shape the characteristics of a health system. The societal value on collectivism versus individualism determines how much financial and organisational responsibility the society assumes for the provision of health care services. In societies with high collectivism values, the society assumes more responsibility for the planning and distribution of resources, while in societies that view ill health as the problem of an individual, the individual assumes more responsibility. The more society assumes responsibility over the planning of the health system, the more highly organised a health system is considered to be [1].

## 5.4 A Health System Example: The Australian Health System

In Australia, the provision of health care services can be separated into primary and secondary health care services [4]. Primary health care systems refer to a consumer's first point of contact with the Australian health care system. This includes services provided by general practitioners, dentists, nurses, pharmacists, other allied health professionals, and Indigenous health workers. No referral is needed for patients to access primary health care services. Secondary health services include health care services provided by hospitals and specialists upon referral by a primary care practitioner. Both primary and secondary health services are provided by a mixture of public and private providers.

Publicly funded health services are provided by all levels of government—the Commonwealth government, State and Territory governments, and Local governments. Public primary health care services and non-hospital secondary services are mostly funded by the Commonwealth government. Public hospitals are funded by both

State and Territory and Commonwealth governments; however they are managed by State and Territory governments.

The overall governance of the Australian health system is the joint responsibility of all Australian health ministers from the Commonwealth, States and Territories, which are collectively referred to as the COAG (Council of Australian Governments) Health Council. These health ministers also manage the individual Commonwealth, State and Territory health systems within their own jurisdiction. The COAG Health Council is supported by the Australian Health Minister's Advisory Council (AHMAC).

The health clinical workforce is regulated by Australian Health Practitioner Regulation Agency (AHPRA) under the National Registration and Accreditation Scheme. The key function of AHPRA is to protect the health and safety of the public by ensuring only suitably qualified and trained health practitioners are registered. Professional bodies such as the Australian Medical Association (AMA), the Australian Nursing and Midwifery Federation (ANMF) and Australian Physiotherapy Association (APA) on the other hand provide advocacy for the health professional groups. Australian universities, such as Melbourne University, and professional education bodies, such as the Royal Australasian College of Surgeons, contribute towards building a competent health workforce within Australia.

The patients within the Australian health system vary between Australian citizens, overseas visitors, temporary and permanent visa holders and asylum seekers. All patients are represented by patient advocacy bodies such as the Consumers Health Forum of Australia.

## 5.5 Analysing Health System Performance

Analysing a health system's performance is often necessary in order to achieve successful strengthening and reform of the system. There is no right or wrong way to analyse a health system; however, various frameworks have been proposed by several authors. Duckett and Willcox [5] used four criteria to evaluate the health system: equity, quality, efficiency, and acceptability. Van Olmen et al. [6] proposed a framework that analyses ten elements of the health system: (1) goals and outcomes; (2) values and principles; (3) service delivery; (4) the population; (5) the context; (6) leadership; (7–10) the organisation of financial, human, infrastructural and supply and knowledge and information resources. In Australia, the National Health Performance Framework recognises the different domains of analysing and reporting on a health systems performance [7]. The first domain looks at the health status of Australians, and includes measures of death, health conditions, human functions, and well-being. The second domain looks at the determinants of health, and includes measures of bio-medical factors, community and socioeconomic factors, environmental factors, and health behaviours. The third domain looks directly at various aspects of the health system performance and includes measures of accessibility, continuity of care, effectiveness, efficiency and sustainability, responsiveness, and safety.

Even within some universally agreed measures of health system performance, there is always an element of subjectivity depending on who is making that evaluation, and whether the health system is analysed from a macro or micro perspective. Consider the following example. Efficiency is often used as a performance measure in health care as health care resources are considered a scarce resource. From a micro perspective, clinicians who are exhausted from working long hours and with skeleton staff may assume the health system is already quite lean and efficient, and advocate against health funding cuts; health administrators or funders, on the other hand, due to having to work with fiscal constraints within the health system, often argue from a macro perspective that there are always areas of inefficiency within the health system that can be improved on. Of course, there are various types of efficiency in health economics, such as technical efficiency, cost efficiency and allocative efficiency, and an additional layer of subjectivity in the analysis of

the health system occurs depending on how much the individual understands the difference between these efficiency types. Further discussions around the concepts of efficiency in health economics are available in Chap. 13.

The sociopolitical values of a society also influence how the performance of a health system is perceived. The key concept here is acceptability of the various inputs, processes and outputs within a health system by the patients, providers and payers.

## 5.6 Health System Governance and Health Policymaking

According to the World Health Organization, health system governance refers to a wide range of steering and rule-making functions carried out by governments/decision makers as they seek to achieve national health policy objectives that are conducive to universal health coverage [8]. It is a political process, and is often about balancing competing influences and demands within the society. One way to achieve good governance of health systems is through health policies.

What is health policy? According to Palmer and Short [9], health policy refers to actions or intended actions by public, private and voluntary organisations that have an impact on the health care system. Policy may refer either to a set of actions and decisions or to statements of intentions.

Health policies may be categorised according to their focus:

- *System level policies* such as policies about funding, like private health insurance, or access to services, like the Pharmaceutical Benefits Scheme in Australia.
- *Institutional level policies* such as policies about the mix and volume of services; gatekeeping policies such as the role of General Practice in the Australian Medical Benefits Scheme; or organisational policies such as organisational structures of hospitals.
- *Task level policies* that outline targets of various tasks, such as elective surgery waiting list targets, emergency department treatment targets and immunisation targets.
- *Individual level policies* that outline expected behaviour of individuals regarding various matters such as illicit drug use and smoking in public places.

Health policies may also be categorised according to how it is used as a policy instrument to achieve a desired outcome:

- *Distributive policies* provide health services or benefits to particular population groups, i.e. Aboriginal health care or aged care.
- *Regulatory policies* limit behaviour of organisations or individuals, i.e. licensing of food handlers, or smoking bans within hospitals.
- *Self-regulatory policies* are set by an organisation for its own benefit, i.e. registration of health professions.
- *Redistributive policies* change the distribution of income, wealth, property or rights between groups, i.e. the Australian Medicare Levy of taxable income above a threshold.

There are four main forms of health policies: legislation, rules and regulations, operational decisions, and judicial decisions [10]. Legislation refers to laws enacted by Parliament that are binding and legally enforced. These laws are supported by rules and regulations, also called subordinate legislation, which are designed by executive agencies responsible for implementing laws to guide their implementation. Operational decisions are less permanent decisions made by the executive agencies as part of implementing a new law, and are usually in the form of procedures and protocols. Judicial decisions made in the court system also shape health policy by helping clarify the interpretation of laws.

There are also different subgroups of health policies, ranging from personal health care policies, health care financing policies, health workforce planning policies, medical research policies, digital health related policies, global health policies, and many more.

The World Health Organization observed that strong health policy proposals generally have the following traits [11]:

- It is inspired by an intimate knowledge of the context and a systemic, long-term, realistic approach.
- There is evidence from other contexts that it has produced the results that are expected in the present environment.
- It frankly admits the weaknesses and the distortions that plague the sector, proposing sensible ways of overcoming them.
- It is explicit about preconditions and risks, the measures to be introduced, the obstacles likely to be encountered, and the relative prioritisation of the proposed actions.
- It tries to anticipate processes and events, rather than trying to mend those that already took place or are under way.
- Its design is technically sound and recognises the resource and capacity implications of successful implementation.
- It is formulated in terms understandable to different actors and is widely disseminated.
- It tackles issues perceived as central to concerned actors.
- It recognises the power games going on at the country and sector level, tries to strike workable trade-offs and look for political alliances.

## 5.7 The Role of Government and Interest Groups in Setting the Health Policy Agenda

While the formal health policy agenda of a country is set by its government and various Departments, these agendas are invariably shaped by special interest groups who are affected by these health policies [12]. In general, the more organised special interest groups are, the more effectively they exert influence over the health policy agenda. Some examples of non-governmental special interest groups include (using Australia as an example):

- *Professional groups*, such as the Australian Medical Association, the Australian Nursing Federation and Australian Physiotherapy Association.
- *Industry groups*, such as Medicines Australia, Pharmacy Guild, Private Hospitals Association, Australian Healthcare Association, and Catholic Healthcare Association.
- *Consumer groups*, such as Consumers Health Forum, Australian Consumer's Association, and Australian Council of Social Service.
- *Disease/Disability groups*, such as the National Heart Foundation, Cancer Council Victoria, Diabetes Australia.
- *Sector groups*, such as National Rural Health Alliance, Council on the Ageing and Mental Health Council of Australia.

Interest groups are most readily observed trying to influence the governments in policymaking through criticism or praise of the government and its policies in the media. Alternatively, they may be active in lobbying government decision makers, participating in expert stakeholder consultation sessions, commissioning research, and advertising to promote the interests of the members they represent.

## 5.8 Health Policy Challenges for Medical Administrators

The challenge of a medical administrator is to maintain an up-to-date understanding of policies at different levels of the health system to ensure sustainable scale up or scale down of health interventions. A medical administrator also faces the challenge of translating health policies into meaningful health intervention and actions that are understood by clinicians within their health service.

### 5.8.1 Consider the Following Example

The Australian Commission on Safety and Quality in Health Care (ACSQHC) was established by the Australian, State and Territory Health Ministers under the National Health Reform Act 2011. Following its establishment 10 National Safety and Quality Health Service (NSQHS) Standards were published that outlined the standards of care expected of health service organisations, and a national safety and quality accreditation scheme was endorsed by the Health Ministers which required all hospitals, day procedure services, and majority of public dental services across Australia to be accredited against the 10 NSQHS standards.

Some key practical questions for a medical administrator to consider in the example above include:

- How does a medical administrator keep up to date with relevant legislative changes in health policy (such as the above National Health Reform Act 2011) that impact on the organisation in which he/she is responsible for?
- How does a medical administrator working in a metropolitan health service apply the 10 NSQHS standards within their health service? How does the medical administrator translate the practical implementation of these standards to clinicians?

Medical administrators are also often in positions to influence policymaking and policy reform, and act as advocates on behalf of patients, clinicians and management. It is thus critical to ensure that medical administrators engage in wide consultation with the various stakeholders when developing, analysing, implementing or reforming health policies.

Similarly, by virtue of the positional leadership held by medical administrators within the health system, medical administrators are often approached by national or state health authorities to provide feedback on various draft policies as part of their stakeholder consultation process. When providing feedback in an advocacy role, it is occasionally tricky for medical administrators to determine which interest group he/she is representing, especially when different interest groups have differing positions on the same issue. Do they represent the voice of the patient? Do they represent the voice of clinicians? Do they represent the voice of the health service organisation that they work in? Some medical administrators choose to advocate for the most poorly represented group of the three; other medical administrators instead choose to provide a balanced discussion of the viewpoints of all three groups; yet others choose to align themselves with only one particular interest group. Either way, it is important for the medical administrator to be self-aware of what outcomes he/she wants to achieve when adopting a particular advocacy position.

## 5.9 Ready Reckoner

- Health systems can be described by its various inputs, processes, outputs and outcomes.
- Health system inputs include workforce inputs, financial inputs, knowledge inputs, infrastructure inputs, and supply inputs.
- Health system processes are the non-linear, emergent or spontaneous interactions between its inputs.
- Health system outputs and outcomes are the results of these interactions and their impact to the patient.
- The characteristics of a health system are influenced by the economic and sociopolitical environment in which it operates in, and evolve over time.

- While there are several proposed frameworks for analysing the performance of a health system, there is always a subjective element to the analysis.
- Health policymaking is a political process that attempts to balance competing influences and demands within a society.
- There are different categories and forms of health policies, all of which regulate the complex interactions between the health system inputs.
- Medical administrators face the challenge of keeping up to date with health policies that affect the health system in which they work within, as well as translating these policies into meaningful action for clinicians.
- Medical administrators also face the challenge of making a value judgment on who to be an advocate for in the health policymaking process.

## 5.10 Reflections

Whilst this chapter has attempted to simplify the complexities of health systems and policies, the concepts described in this chapter are just the beginning of a medical administrator's lifelong journey of learning about this topic. As health systems become more and more complex, so too does the task of the medical administrator in successfully navigating these health systems and effectively implementing positive health policy changes within these systems. The key is to never stop learning!

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# 6 Legal Medicine in the Administration of Health Care

Heather Wellington

**Learning Objectives**
By the end of this chapter, the learner should be able to understand:

- Australia's legal system is based on legislation and common law. Legislation includes statutes or acts made by Parliaments, and delegated or subordinate legislation made by individuals or bodies acting under the authority of Parliaments.
- Common law is made when judges decide cases. Precedent applies in case law, requiring judges to follow the law declared by judges in higher courts in the same jurisdiction in cases with similar facts.
- Medical administrators need to understand areas of the law relevant to the delivery of health services, to support delivery of high-quality health care and ensure legal compliance and effective risk management in increasingly complex health care environments.

This chapter is divided into three parts:

1. Patient care
2. Professionals
3. Organisations and systems.

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## 6.1 Patient Care

### 6.1.1 Adverse Events, Negligence and Complaints in Health Care

#### 6.1.1.1 Adverse Events

While the scope of responsibilities of medical administrators is broad and varies considerably between settings, the medical administrator's role is almost universally oriented towards the overarching goal of ensuring the organisation delivers safe, high-quality health care.

The contemporary medical administrator has a professional responsibility to lead a clinical culture that supports quality and continuous improvement, while ensuring appropriate organisational and professional systems of accountability to patients and the community.

Incidents in which harm results to a person receiving health care, known as adverse events, are common in the health care environment. The landmark Quality in Australian Health Care Study [1], published in 1995, reported 16.6% of hospital admissions in Australia were associated with an adverse event, with 51% of those events considered highly preventable. Subsequent studies in a number of developed health care systems suggest 10% of hospital admissions are associated with an adverse event [2].

Many injuries that occur in association with the delivery of health care are a result of inherent risk, but a significant proportion is associated


E. Loh et al. (eds.), *Textbook of Medical Administration and Leadership*,
https://doi.org/10.1007/978-981-10-5454-9_6

with care that does not meet accepted standards. In the Harvard Medical Practice Study, more than 25% of adverse events were found to be attributable to negligence, with the proportion of adverse events attributable to negligence increasing in the categories of more severe injuries and amongst the elderly [3]. The percentage of adverse events due to negligence was found to be consistent between medical specialties [3].

Since 2005, jurisdictional health authorities across Australia have required public hospitals to report all instances of eight nationally agreed 'sentinel events' [4]. A review of the national sentinel events list is due to be finalised by early 2018.

#### 6.1.1.2 Negligence

Negligence is failure to exercise reasonable care to avoid causing injury or loss to another person.

A plaintiff must prove all of the following elements before a finding of negligence can be made:

- There was a duty in the circumstances to take care.
- The behaviour or inaction of the defendant in the circumstances did not meet the standard of care that a reasonable person would have met in the circumstances.
- The plaintiff suffered injury or loss (damage) that a reasonable person in the circumstances could have been expected to foresee.
- The damage was caused by the breach of duty.

A plaintiff must establish on the balance of probabilities that negligence occurred. This is a lower standard of proof than that which applies in criminal cases, where the prosecution must prove beyond reasonable doubt that criminal conduct occurred.

#### 6.1.1.3 Duty of Care

A duty of care is a legal obligation to avoid causing harm, which arises where harm is reasonably foreseeable if care is not taken. Australian courts have repeatedly confirmed that a duty of care is inherent in the doctor-patient relationship. In *Rogers v Whitaker* [5] the Court said:

> The law imposes on a medical practitioner a duty to exercise reasonable care and skill in the provision of professional advice and treatment. That duty is a "single comprehensive duty covering all the ways in which a doctor is called upon to exercise his skill and judgment"; it extends to the examination, diagnosis and treatment of the patient and the provision of information in an appropriate case.

It is unclear whether there is a duty to assist when there is a general call for medical assistance, for example, when someone falls ill at an airport.

A duty of care was found to be owed when a doctor was called to provide emergency care to a patient with whom he did not have an established clinical relationship [6]. That case was decided, however, in the general context of a regulatory framework that has since changed.

Courts have found in some circumstances that a doctor owes a duty of care to third parties who are not patients, but who could be affected by the doctor's treatment of a patient. A doctor was held to owe a duty of care to the partner of his patient, whom he had never seen, when he failed to investigate his patient's symptoms of human immunodeficiency virus (HIV) and diagnose HIV infection [7]. Another doctor was found negligent for failing to inform a patient's partner of the patient's positive HIV status when they both attended the same consultation with the doctor, during which HIV testing was arranged. However, in *Hunter & New England Local Health District v McKenna* [8] the High Court unanimously held that the hospital and assessing psychiatrist did not owe the relatives of a patient a duty of care in the exercise of their statutory powers to detain and discharge mentally ill patients. In that case, the discharged patient killed the friend into whose care he had been discharged after a mental health assessment.

All Australian states and territories have Good Samaritan legislation, which protects medical practitioners from liability when they come to the aid of an ill or injured person, in good faith and without expectation of reward [9]. The detail of the legislation differs between jurisdictions.

In addition to potential consequences founded in common law there may be regulatory consequences if medical practitioners fail to offer assistance to people in need of medical care. The

Medical Board of Australia, in its code of conduct for doctors in Australia, notes that good medical practice involves offering assistance in an emergency that takes account of your own safety, your skills, the availability of other options and the impact on any other patients under your care; and continuing to provide that assistance until your services are no longer required [10].

In *Medical Board of Australia and Dekker* [11] Dr. Dekker was found guilty of improper conduct by the State Administrative Tribunal of Western Australia for failing to stop and render assistance following a motor vehicle accident in which she was involved. The decision was overturned, however, by the West Australian Supreme Court of Appeal [12], which found, amongst other findings, that there was no evidence of a specific professional duty as formulated.

The State Administrative Tribunal of Western Australia also found a medical practitioner, who denied when approached by a member of the public outside his practice that he was a doctor, to have acted improperly in the course of his practice as a medical practitioner [13].

The Board recognises that doctors who are registered as non-practising practitioners may find themselves in a circumstance when it is appropriate for them to provide assistance in an emergency. In such circumstances, the Board recognises that the practitioner will, and should, provide the best care they can. The Board has stated that it would not have any grounds to take action against a non-practising practitioner for rendering medical assistance in an emergency unless they claimed to hold a type of registration that they do not hold or used a protected specialist title [14].

In New South Wales, failure to attend and provide professional services if a practitioner has reasonable cause to believe a person is in need of urgent attention, or make satisfactory alternative arrangements, constitutes unsatisfactory professional conduct [15].

#### 6.1.1.4 Standard of Care

Medical practitioners and other health care professionals must exercise reasonable care. The duty of care is breached if care falls below the expected standard.

The standard of care for professionals has been defined in legislation in all states as the standard widely accepted in Australia by a significant number of respected practitioners in the field as competent professional practice in the circumstances [16]. The professional opinion on which a practitioner relies must not be unreasonable in Western Australia and Victoria or irrational other states [16]. The fact that there are differing professional opinions widely accepted in Australia by a significant number of respected practitioners in the relevant field does not prevent one or all of those opinions being relied on [16].

Part of the professional's duty is to warn of material risks involved in medical treatment. Consistent with the High Court's decision in *Rogers v Whitaker* [17], the peer professional practice standard does not apply to claims arising from failure to warn a patient of the risks of proposed treatment.

Clinical guidelines are statements that have been systematically developed to assist clinicians in making decisions about treatment for specific conditions [18]. They may provide good evidence of peer professional practice, but should not be applied without consideration of the specific circumstances of the patient. The exercise of professional responsibilities requires independent judgments to be made and each practitioner is responsible for his or her own actions [19].

#### 6.1.1.5 Damage and Causation

As well as requiring proof that a duty of care exists and has been breached, to succeed in an action in negligence a plaintiff must demonstrate that the breach caused the relevant injury or loss, and the injury or loss was not too remote a consequence of the breach.

The common law is supplemented by civil liability legislation in most states and territories. As well as requiring proof of factual causation, that is, that the defendant's negligence, as a matter of fact, caused the patient's injury or loss, the legislation requires that the defendant should be held responsible in the particular circumstances, that is, the defendant was within the appropriate 'scope of liability' that should be imposed.

Factual causation is established by the *but for* test—the question to be asked is whether the defendant's negligence was a necessary condition for the occurrence of the relevant harm or loss.

Consideration of the second part of the causation inquiry—scope of liability—is then required. This inquiry allows consideration about whether, and if so why, the defendant should be found liable for the harm suffered by the plaintiff. Consideration may be given to relevant matters including whether there were any new intervening acts that severed the chain of causation, or whether the harm/loss suffered was too remote a consequence of the defendant's actions to attribute liability to the defendant. The precise manner in which the harm has occurred does not have to have been reasonably foreseeable—the focus is on the kind of damage that occurred, rather than precisely what occurred [20].

Scope of liability was an issue in *Wallace v Kam* [21], for example. In that case the High Court confirmed causation is not established if a doctor negligently fails to warn a patient of two or more material risks of treatment, if the patient would have agreed to take the risk that materialised but not the risk that did not materialise. A patient can only succeed in a claim of negligence if a risk materialises that the doctor had negligently failed to disclose and the Court is satisfied the patient would not have been prepared to accept that specific risk, had they been aware of it.

#### 6.1.1.6 Compensation

The aim of an award of damages is to make good to the plaintiff, so far as money can do, the loss which they have suffered [22]. Compensation can be claimed for actual financial loss, such as direct costs of medical care, earning capacity loss and non-pecuniary loss, such as pain, suffering and disfigurement.

Following release of the report of the Review of the Law of Negligence Final Report in September 2002, which was undertaken in response to a perceived crisis in medical indemnity insurance, Parliaments in all Australian states and territories enacted significant tort law reforms, which restricted liability and/or damages and/or restated the common law in a more restrictive manner.

In all jurisdictions, significant limitations have now been imposed on the period within which claims must be initiated, the level of disability that must be evident before damages can be awarded, the amount that can be awarded under various heads of damages and the availability of punitive or exemplary damages.

Following this tort law reform, there was a striking reduction in claim rates [23].

### 6.1.2 Disclosure of Adverse Events

Many patients want to be informed if an adverse event has affected their experience or outcome of care, and whether steps have been taken to reduce the risk of a similar adverse event affecting the care of other patients.

Where a patient's ongoing care would be affected by their knowledge of an adverse event, there is a duty to disclose the occurrence of that event. In *Wighton v Arnot* [24], for example, the Court found that early disclosure, investigation and treatment would have improved the patient's prognosis. Studdert J stated [25]:

> …the patient had a right to know, and the defendant had a duty to inform her, that he had severed a nerve.

It has been suggested that the law should accept that the fiduciary obligations of the doctor-patient relationship extend to a presumption that any adverse health care event will be promptly reported to the patient involved [26].

Open disclosure is an open discussion with a patient about an incident that resulted in harm to that patient while they were receiving health care. The discussion and an exchange of information may take place over several meetings [27].

The Australian Open Disclosure Standard was developed by the former Australian Council for Safety and Quality in Health Care. In April 2008, Health Ministers agreed to work towards the full implementation of the standard in all health care facilities [28].

The Australian Open Disclosure Framework (Framework) was developed by the Australian Commission on Safety and Quality in Health Care

(Commission) to provide a nationally consistent basis for communication following unexpected health care events and harm. The Framework is intended for use by Australian health service organisations across all sectors and settings [28], and sets out the components that should be included in every open disclosure process [29]:

- The patient, their family and carers should be told the name of every person attending an open disclosure meeting. This information should also be provided in writing.
- A sincere and unprompted apology or expression of regret should be given on behalf of the health service organisations and clinicians. The word sorry should be used.
- A factual explanation should be given, including the known facts and consequences of the adverse event. Speculation should be avoided.
- The patient, family and carers should have the opportunity to give their views and ask questions.
- The patient, family and carers should be encouraged to talk about the personal effect of the adverse event on their life.
- An open disclosure plan should be agreed and recorded, and a copy provided to the patient, family and carers.
- The patient, family and carers should be informed of any further reviews, and about any changes that are made to prevent recurrence.

As part of the open disclosure discussions, an offer of support should be provided to the patient, family and carers, which includes [29]:

- Ongoing support, including reimbursement of out of pocket expenses incurred as a result of the adverse event.
- Assurance that necessary follow-up care or investigation will be provided promptly and efficiently.
- Where relevant, details about who will be responsible for providing ongoing care resulting from the adverse event.
- Contact details for services that may need to be accessed.
- Information about how to take the matter further, including health complaint processes available.

Compliance with the Framework is not a legal requirement but implementation of a programme that is consistent with the Framework is mandated under the *National Safety and Quality Health Service Standards* [30], and therefore adherence to the Framework may be a compliance obligation for organisations accredited to those standards.

While health care professionals may be concerned that open disclosure may increase the incidence of litigation [31], this does not appear to have occurred in Australia. For example, in 2012–2013 the number of new public sector medical negligence claims was about 950, which was less than any of the previous 4 years, and the number of new private sector claims was about 3300, which was similar to the previous 2 years [32]. Internationally, open disclosure is reported to have had a favourable effect on litigation rates [33, 34].

As noted above, the Framework provides for provision of a sincere and unprompted apology or expression of regret including the words ‘I am sorry’ or ‘we are sorry’ and describes such statements as central to open disclosure. The Framework explicitly warns of the risk of making an admission of liability, however, and advises that clinicians should take care not to speculate on the causes of an incident or pre-empt the results of any investigations. They must not apportion blame, or state or agree that they, other clinicians or the health service are liable for the harm caused to the patient.

All Australian legislatures have enacted laws that prevent apologies given after an adverse event from being used in legal proceedings, but in a number of jurisdictions a statement acknowledging fault or liability is excluded, explicitly or implicitly, from the definition of ‘apology’ [35].

### 6.1.3 Independent Health Care Complaints Entities

Medical administrators will frequently be asked to review and manage consumer complaints, some of which may have been escalated to an external statutory body such as a health services commissioner or ombudsman.

In the Medicare Agreements (1993–1998), the Commonwealth and States/Territories agreed to develop Public Patients' Hospital Charters and establish independent complaints mechanisms [36]. The *Medicare Agreements Act 1992* amended the *Health Insurance Act 1973* to incorporate these actions as a condition of the grant of financial assistance by the Commonwealth to a State for the provision of public hospital services [37].

NSW was the first jurisdiction to establish, in 1984, a statutory body specifically to deal with health care complaints followed by Victoria (1988), Queensland (1991), the Australian Capital Territory (1994), Western Australia (1996), Tasmania (1997), the Northern Territory (1998) and South Australia (2004) [38].

Although legislation varies between jurisdictions, the various health complaint entities are all independent of hospitals, providers and jurisdictional health authorities. Their functions generally include:

- The resolution of complaints about health care, by conciliation or other means.
- Investigating, in response to a complaint or on their own motion, systemic issues relevant to the provision of health care.
- Promoting improved safety and quality in the delivery of health care.

Section 150 of the National Law regulates communication between health complaint entities and National Health Practitioner Boards. The Australian Health Practitioner Regulation Agency (AHPRA) and seven of the eight jurisdictional health complaint entities, all other than NSW, signed a memorandum of understanding that outlines the respective roles and responsibilities of AHPRA and the health complaint entities [39].

In NSW, all complaints about health practitioners and health organisations are notified to the Health Care Complaints Commission, even where the complaint is made to a Registration Board or Council. This includes mandatory notifications relating to a health practitioner practising in NSW. Mandatory notifications are deemed to be complaints in NSW and are automatically referred to the Health Care Complaints Commission [40].

In Queensland, mandatory notifications made under the Health Practitioner Regulation National Law Act 2009 are made to the Office of the Health Ombudsman [41].

### 6.1.4 Consent to and Withdrawal of Medical Treatment

#### 6.1.4.1 General Issues of Consent and Capacity

The medical administrator is often asked to assist to resolve complex issues of consent to treatment.

At common law, adults with the necessary decision-making capacity can choose whether to undergo medical treatment, and medical practitioners proposing to treat patients are responsible for providing sufficient information, including information about material risks, for patients to make a decision about undergoing treatment [42].

Unless a lawful exception applies, failure to obtain consent prior to providing medical treatment can lead to actions in negligence and/or trespass, or charges of criminal assault. Lawful exceptions to the requirement for consent to medical treatment include:

- Where treatment is necessary in an emergency to save a person's life or prevent serious injury to a person's health.
- Where there are statutory powers to treat and or detain in mental health or alcohol and other drug treatment facilities; or to take blood for alcohol and/or drug testing; or to examine and detain in regard to infectious diseases.

Capacity is a legal concept that describes the level of intellectual functioning a person requires to make and accept responsibility for important decisions that often have legal consequences [43].

The Australian Law Reform Commission (ALRC), in a discussion paper: *Equality, Capacity and Disability in Commonwealth Laws* emphasised the right of citizens to make decisions and the necessity to provide persons who may require support in decision-making with the support necessary for them to make, communicate and participate in decisions that affect their lives [44].

In Australia, a person aged less than 18 years is legally regarded as a minor. The common law recognises the concept of the mature minor, however, who may be competent to consent to their own treatment [45, 46].

South Australia has legislation that recognises that a child aged over 16 years may consent to medical treatment. In addition, section 12(b) of the *Consent to Medical Treatment and Palliative Care Act 1995* (SA) permits medical treatment of a child if the child consents and the administering medical practitioner is of the opinion that the child is capable of understanding the nature, consequences and risks of treatment and that the treatment is in the best interest of the child's health and well-being. The medical practitioner must also seek the written opinion of at least one other medical practitioner who personally examines the child before the treatment is commenced.

Under their general supervisory powers, Courts may overrule the wishes of parents and/or their mature minor children and authorise treatment based on the best interests of the child. The Court's guardianship jurisdiction may be invoked if the legal position on consent to treatment is unclear. In *X v The Sydney Children's Hospitals Network* [47] a teenage boy who was almost aged 18 refused a blood transfusion on religious grounds. The Court held that its jurisdiction is not restricted by the 'mature minor' principles, and that in the circumstances it was not in the best interests of the boy to refuse treatment, whose closeness in age to 18 did not alter that decision.

In all Australian jurisdictions, legislation authorises the administration of blood transfusions to children without consent under certain circumstances [48].

### 6.1.5 Advance Care Directives

With increasingly sophisticated medical technology enabling maintenance of life through provision of complex and sometimes extremely burdensome interventions, issues of appropriateness of provision of health care at the end of life have been raised by individual patients, families and health care professionals.

The common law recognises anticipatory refusals of medical treatment, which are treated as binding if they are clearly established, applicable to the current circumstances and made without undue pressure from others [49]. In *Hunter and New England Health Service v A [2009]* [50] the Court upheld Mr. A's wishes, expressed almost 12 months previously in an unsigned written statement, that he not be given dialysis, and provided a summary of principles for practitioners to follow when provided with an advance care directive in an emergency situation.

A number of Australian jurisdictions have introduced legislation that enables patients to record their wishes about end-of-life care, although there are significant differences between jurisdictions in the form and effect of this legislation [51].

In September 2011, the Clinical, Technical and Ethical Principal Committee of the Australian Health Ministers' Advisory Council produced a *National Framework for Advanced Care Directives* [52], which provides guidance on policy and best practice in relation to advance care directives.

### 6.1.6 Substitute Decision-Making

The High Court has recognised the courts' *parens patriae* jurisdiction in authorising treatment for children [53], but the common law otherwise provides little guidance on substitute decision-making in health care.

State and territory guardianship and mental health legislation provides detailed rules for substitute decision-making for the medical treatment of adults who are deemed incapable of giving consent. Guardianship legislation outlines criteria for appointing substitute decision makers, the hierarchy of possible decision makers and the scope of their powers, which depend on the age of the patient and the type of treatment proposed. Decision makers may be chosen by a person, assigned by legislation or appointed by a court.

In exercising their powers, substitute decision makers are required to adopt either the best interests test, which requires a balancing of the

benefit to the patient against the risks of the proposed treatment, or the substituted judgment test, which involves making a decision consistent with what the person would have decided if they had the capacity to do so [44]. Evidence of such wishes may be provided by advance care directives, religious beliefs and previous history of treatment.

### 6.1.7 Withdrawal of Treatment

Difficult legal and ethical issues can arise associated with concerns that life-sustaining medical treatment is futile. Often, the medical administrator has a key role in resolving uncertainty or conflict in such situations.

In *Brightwater Care Group (Inc.) v Rossiter* [54] the Court held that there was no duty to provide nutrition and hydration if a competent patient expressly refuses consent. Courts/Tribunals have also confirmed that refusal of medication or medically administered nutrition and hydration is not suicide [55].

Supreme Courts have jurisdiction to resolve disputes in cases where agreement cannot be reached with substitute decision makers about the incompetent patient's medical care. Six key themes have been identified from the developing body of jurisprudence in these circumstances [56]:

- Futile medical treatment is not in a patient's best interests.
- Treatment that is overly burdensome is not in a patient's best interests, even if the patient is unconscious or unaware of treatment burdens.
- Courts have generally not engaged expressly in quality-of-life assessments, but they remain relevant for determining best interests when considering the patient's medical condition and prognosis.
- A patient's wishes and values, gleaned when the patient was competent, are relevant to, but do not determine, his or her best interests. Family members' views may also be relevant where they are reflecting a patient's wishes, and perhaps also when reflecting their own wishes, but these views are not conclusive in determining a patient's best interests.
- The interests of other people and organisations, including the wider health system, are generally not relevant when determining a patient's best interests.
- Courts have generally deferred to medical practitioners' opinions about treatment decisions, even when the patient's family has strongly opposed them.

Although anticipatory refusals of medical treatment can have effect, advance directives to the effect that a person is to be kept alive through active treatment and be given nutrition and hydration until they die of natural causes will not necessarily have any effect. In 2005 the Court of Appeal stated, when referring to the *Bland Case*:

> While a number of their Lordships indicated that an advance directive that the patient should not be kept alive in a [permanent vegetative state] should be respected, we do not read that decision as requiring such a patient to be kept alive simply because he has made an advance directive to that effect [57].

### 6.1.8 Organ Donation

> Arguably the single most dramatic and opportune medical advancement of the 20th century is clinical organ transplantation [58].

Regulation of organ donation is the responsibility of the States and Territories, the Parliaments of each of which have enacted legislation covering organ donation and transplantation, including laws governing consent [59].

Currently, organ donation after death in Australia operates under an 'opt in' system, with donors registering their consent or objection on the Australian Organ Donor Register (Register). People aged 16 years and over can record their decision to become an organ and/or tissue donor for transplantation after their death on the Register; however, family consent is always sought before such donations proceed.

The medical administrator of a health service is frequently appointed as the hospital's Designated Officer for the purposes of authorising

removal of tissue after death for transplantation. The Designated Officer must give authorisation for organ donation to occur, and needs to verify (subject to specific jurisdictional legislation) that:

- Death has been certified in accordance with legislation.
- The donor had not objected to organ and tissue donation prior to death.
- The senior available next of kin has no objection to organ and tissue donation and has authorised donation.
- Consent from the Coroner has been obtained in applicable cases.

State and territory legislation differs in its approach to regulation of transplantation of tissue from deceased donors, in the following areas:

- Whether written donor consent is required.
- Whether a next of kin may consent to removal and donation of tissue, if the deceased person has not clearly indicated their wishes.
- Whether donation can proceed if it is not possible to contact the next of kin.

### 6.1.9 Wills

A will is a legal document setting out a person's wishes for the distribution of their assets after their death.

Hospital staff may be asked to confirm the testamentary capacity of a patient or to witness a patient's will. The medical administrator should have some knowledge of the law in this area.

A patient must have testamentary capacity to make a valid will. The test of whether a person has sufficient capacity to make a will was set out in *Banks v Goodfellow* [60], where Cockburn CJ, giving the judgment of the Court, said:

> It is essential to the exercise of such a power that a testator shall understand the nature of the act and its effects; shall understand the extent of the property of which he is disposing; shall be able to comprehend and appreciate the claims to which he ought to give effect; and, with a view to the latter object, that no disorder of the mind shall poison his affections, pervert his sense of right, or prevent the exercise of his natural faculties-that no insane delusion shall influence his will in disposing of his property and bring about a disposal of it which, if the mind had been sound, would not have been made.

A finding of incapacity in one area does not automatically mean capacity is lacking in another area. A person who is incapable of managing some aspects of their affairs may still be capable of making a will.

Statutory rules on executing a will are defined in legislation in all Australian jurisdictions [61]. Rules governing witnessing of wills by beneficiaries vary between jurisdictions; however, even if legislation does not prohibit a beneficiary from witnessing a will it is always preferable for a beneficiary not to do so and legal advice should always be sought.

Testamentary capacity should only be assessed by people with appropriate skills and experience, which generally will include specialist geriatricians, psycho-geriatricians and neurologists. The request for assessment of testamentary capacity should be clear. The Law Society of NSW recommends that solicitors take great care in drafting referral letters for a capacity assessment, noting that 'many medical professionals will have a different approach to the task of capacity assessment than the legal approach and will not necessarily understand the specific legal tests which must be satisfied', and recommends the referral letter sets out [62]:

- The client's background.
- The reason the client contacted the solicitor.
- The purpose of the referral- what is the legal task or decision being considered.
- The relevant legal standard of capacity to perform the task at hand.
- Any known medical information about the client.
- Information about the client's social or living circumstances.
- The client's values and preferences if known.

Documentation of an assessment of testamentary capacity should address the *Banks v Goodfellow* [60] criteria.

Supreme Courts can make statutory wills on behalf of persons who lack capacity to make their own will. In Tasmania, a statutory will may also be made in some circumstances by the Guardianship and Administration Board.

The medical administrator should ensure there are appropriate policies and procedures in existence in the health care organisation so that documentation of testamentary capacity and/or witnessing of wills occur appropriately.

### 6.1.10 Reporting Deaths to the Coroner

Ensuring compliance with statutory obligations to report certain deaths to the Coroner is an important responsibility of many medical administrators. Medical administrators need to familiarise themselves with the legislation in their jurisdictions and ensure medical staff are familiar with reporting obligations and processes.

Coroners Courts and the role of the Coroner are established by legislation in each state and territory. While legislation varies between jurisdictions, the role of the Coroner is to investigate the cause and circumstances of deaths that occur in defined circumstances.

Coroners have a key role in injury and death prevention and are empowered to make recommendations on matters of public health and safety and judicial administration. Homicide investigations form a very small part of the work of Coroners, with the vast majority of reported cases involving unexplained natural deaths and deaths where the cause is suspected to be direct or indirect trauma [63].

In all Australian states and territories, a doctor responsible for the care of a deceased person immediately before they died or who examined the deceased person's body must issue a cause of death certificate to the Births, Deaths and Marriages Registry within a defined period of the death or its discovery. If, however, the death falls into a 'reportable death' category as defined by the relevant Coroners Act, a death certificate must not be issued and there is a statutory obligation to report the death to the Coroner. Failure to report such a death to the Coroner is an offence.

There is considerable variation between jurisdictions in both the definitions of reportable deaths and the penalties for non-compliance with reporting requirements [64]. In general, unexpected, unnatural or violent deaths must be reported, including those related to an injury or accident. Deaths occurring while a person is held in a state facility must be reported, as must most deaths in which the identity of the deceased or the cause of death is unknown. Traditionally, certain operative deaths were required to be reported, however a number of Australian jurisdictions have amended their legislation to insert health care-related deaths into their Coroners Acts, replacing specific anaesthesia death categories and recognising a wider range of unexpected medical deaths that should be referred for coronial investigation.

The question of whether a death that occurs in a hospital setting is reportable is surprisingly complex. A study utilising retrospective structured medical record review of inpatients who died at two major Victorian public hospitals between January 2002 and June 2003 provided evidence of significant under-reporting of deaths to the Coroner [65].

An analysis of legislation in each Australian jurisdiction confirmed that some deaths may be reportable in some jurisdictions but not in others [66].

Interestingly, only Queensland legislation expressly includes omissions in the provision of health care when determining whether a death is reportable [67]. The Law Reform Commission of Western Australia described the Queensland model as the 'best and most comprehensive formulation' for the reporting of medical-setting deaths [68].

Following receipt of a report of a death, the Coroner is required to determine the cause of death. Usually, this is done following an investigation. An inquest or public hearing is held in few cases.

## 6.2 Professionals

### 6.2.1 Registration of Medical Practitioners

It is often the responsibility of medical administrators to ensure doctors who provide health care

services in their organisation are registered in accordance with the Health Practitioner National Law (National Law) as in force in each state and territory. Medical administrators also need to pay attention to their own registration status.

The National Registration and Accreditation Scheme (NRAS) started on 1 July 2010. The NRAS was established by state and territory governments to [69]:

- Protect the public by ensuring that only suitably trained and qualified practitioners are registered.
- Facilitate workforce mobility across Australia.
- Enable the continuous development of a flexible, responsive and sustainable Australian health workforce.

Each health profession that is part of the NRAS is represented by a National Board, the primary role of which is to protect the public. The Boards register practitioners and students and undertake other functions for their professions.

The National Law provides for a National Board to establish State and Territory Boards to exercise its functions in the jurisdiction in a way that provides an effective and timely local response to health practitioners and other persons in the jurisdiction [70]. These Boards make individual registration and notification decisions, based on national policies and standards set by the relevant National Board, using powers delegated by the National Board.

Under the National Law, a person *must* be a registered health practitioner if they:

- Use the title 'registered health practitioner' with or without any other words (s. 116(1)(a));
- Take or use a title, name, initial, symbol, word or description that, having regard to the circumstances in which it is taken or used, indicates or could be reasonably understood to indicate, that the person is a health practitioner or is authorised or qualified to practise in a health profession (s. 116(b));
- Claim to be registered under the National Law or hold themselves out as being registered under the National Law (s. 116(c));
- Claim to be qualified to practise as a health practitioner (s. 116(d)); or
- Undertake a restricted act (specific dental acts, prescription of optical appliances and manipulation of the cervical spine) (ss. 121–123).

Other legislation provides that registration is required to enable prescribing and for a patient to be eligible for a Medicare benefit for a medical service.

A person who is not registered cannot use the titles 'medical practitioner' or 'medical specialist' or titles of a number of medical specialties recognised under the National Law [71]. The title 'doctor' is not, however, protected.

With the exception of students and non-practising registrants, all applicants for registration are required to meet the following mandatory registration standards [72]:

- Continuing Professional Development Registration Standard.
- Criminal History Registration Standard.
- English Language Skills Registration Standard.
- Professional Indemnity Insurance Registration Standard.
- Recency of Practice Registration Standard.

Medical administrators are eligible for registration as medical practitioners. Medical administration is included on the list of approved medical specialties and the title specialist medical administrator is protected [73].

A registered medical practitioner who holds non-practising registration must not practise the profession [74] but can use the protected title 'medical practitioner'. They remain subject to the Board's jurisdiction in relation to their professional conduct. They are not required to take any steps to meet the Board's registration standards in relation to professional indemnity insurance [75], continuing professional development [76] or recency of practice [77] and their registration fee is reduced [78].

In documents developed under its statutory authority, the Board has defined 'practice' as [78]:

> … any role, whether remunerated or not, in which the individual uses their skills and knowledge as a health practitioner in their profession. For the

> purposes of this registration standard, practice is not restricted to the provision of direct clinical care. It also includes using professional knowledge in a direct nonclinical relationship with clients, working in management, administration, education, research, advisory, regulatory or policy development roles, and any other roles that impact on safe, effective delivery of services in the profession.

For roles beyond direct patient care, the Medical Board of Australia advises practitioners to be registered when:

1. Their work impacts on safe, effective delivery of health care to individuals and/or
2. They are directing or supervising or advising other health practitioners about the health care of an individual(s) and/or
3. Their employer and/or their employer's professional indemnity insurer requires a person in that role to be registered and/or
4. Professional peers and the community would expect a person in that role to comply with the Board's registration standards for professional indemnity insurance, continuing professional development and recency of practice and/or
5. They are required to be registered under any law to undertake any specific activity

The Board has also provided examples where registration may not be necessary or practitioners may choose to hold non-practising registration, including roles such as teaching/examining not involving patient treatment, research, public speaking on health- or medical-related topics and provision of policy advice [79].

The Board has recognised that some of the activities it has identified as not necessarily requiring registration fall within the broad definition of 'practice' used in the registration standards. It suggests that as these activities do not contravene the National Law, the Board would not have any grounds to take action against an individual whose scope of activity did not amount to 'holding out' or using a protected title [79].

Medical administrators should take the Board's advice that [79]:

> If you require further assistance to help you decide whether or not you need to be registered, consult your employer, professional indemnity insurer or other legal adviser.

### 6.2.2 Notifications Under the National Law

The Board's regulatory role is supported by provisions in the National Law that require health practitioners, as soon as practicable after forming a reasonable belief in the course of practising their profession that a registered medical practitioner has engaged in notifiable conduct or a medical student has an impairment that in the course of the student undertaking clinical training may place the public at substantial risk of harm, to notify AHPRA [80]. A similar obligation applies to employers of registered medical practitioners [81].

Notifiable conduct occurs when a practitioner has [82]:

- Practised the practitioner's profession while intoxicated by alcohol or drugs or
- Engaged in sexual misconduct in connection with the practice of the practitioner's profession or
- Placed the public at risk of substantial harm in the practitioner's practice of the profession because the practitioner has an impairment or
- Placed the public at risk of harm because the practitioner has practised the profession in a way that constitutes a significant departure from accepted professional standards

Two States have created exceptions to the mandatory notification obligation for health practitioners who form a reasonable belief that there has been notifiable conduct when treating other health practitioners:

- In Western Australia, the mandatory notification obligation does not apply to a health practitioner who forms the reasonable belief in the course of providing health services to another health practitioner [83].
- In Queensland, a health practitioner who forms the reasonable belief as a result of providing a health service to another health practitioner is not subject to a mandatory notification obligation, although this exception only applies where the health practitioner reasonably believes that the notifiable conduct

relates to an impairment which does not place the public at substantial risk of harm and is not professional misconduct [84].

Registered health practitioners in all jurisdictions are also exempt from the requirement to make a mandatory notification in certain other circumstances, which are listed in s. 141 of the National Law.

Division 3 of Part 8 of the National Law also establishes provisions for voluntary notification on a range of grounds. This Division does not require the notifier to form a reasonable belief that the public may be at risk of harm.

The Board has broad powers to respond to notifications received about the health or performance of registered medical practitioners and medical students.

### 6.2.3 Credentialling and Defining Scope of Clinical Practice

The medical administrator is usually the senior executive responsible for ensuring effective systems for credentialing and defining the scope of clinical practice of medical practitioners are in place in their health service. The importance of this role cannot be overstated.

Credentialling refers to the formal process used to verify the qualifications, experience professional standing and other relevant professional attributes of medical practitioners for the purpose of forming a view about their competence, performance and professional suitability to provide safe, high-quality health care services within specific organisational environments [85].

Defining the scope of clinical practice' follows on from credentialling and involves delineating the extent of an individual medical practitioner's clinical practice within a particular organisation based on the individual's credentials, competence, performance and professional suitability, and the needs and the capability of the organisation to support the medical practitioner's scope of clinical practice [85].

A national standard for credentialling and defining the scope of clinical practice of medical practitioners, for use in public and private hospitals (Standard) was endorsed by Health Ministers and published by the Australian Council for Safety and Quality in Health Care in 2004 [85]. The Standard provides a framework for credentialling and defining the scope of clinical practice of medical practitioners who have independent practicing rights in public and private hospitals, including public and private freestanding day hospital facilities. It clearly identifies credentialling and defining the scope of clinical practice of medical practitioners as organisational governance responsibilities.

A number of states and territories have published policy and/or guidance documents to support local implementation of the Standard. New South Wales has established a State Scope of Clinical Practice Unit [86].

Standard One of the National Safety and Quality Health Service Standards addresses Governance for Safety and Quality in Health Service Organisations. Criterion 1.23 of that Standard requires health service organisations to define the scope of practice of clinicians, monitor clinicians' practices to ensure they are operating within their designated scope of practice and review clinicians' scope of practice periodically and when new services, procedures or technologies are introduced or substantially altered [87].

The tort of negligent credentialing has been recognised in the United States of America. For example, the decision in *Rabelo v Nasif et al.* [88] contemplates the existence of liability for negligent credentialing when a hospital knows that a clinician is incompetent and fails to take action, or when it negligently fails to identify incompetence prior to credentialing. While it appears that no similar actions have been pursued successfully in Australia to date, the potential exists for a plaintiff to allege negligent credentialing and pursue remedies through regulatory or tort law avenues.

### 6.2.4 Medical Indemnity Insurance and Claims Management

Public sector medical indemnity insurance arrangements are managed by state and territory governments. Different arrangements are in place

in each jurisdiction, with particular differences relating to insurance of visiting medical officers, private practitioners and students.

In some jurisdictions claims are managed by the relevant state or territory health authority directly, while in others an external body undertakes claims management.

Processes for claims management vary between jurisdictions, and in some jurisdictions different processes apply for small and large claims.

The Australian Institute of Health and Welfare's publication: Australia's Public Sector Medical Indemnity Claims 2012–2013 presents data on public and private sector medical indemnity claims in Australia from 2008–2009 to 2012–2013 and contains an appendix that details jurisdictional claims management practices.

### 6.2.5 Professional Standards Applying to Medical Administrators

Medical administrators who do not have a direct clinical role may still be disciplined for unsatisfactory professional conduct if patient care falls below expected standards.

In *Roylance v General Medical Council* [89], a medical administrator acting as the Executive Officer of the United Bristol Healthcare NHS Trust was charged with serious professional misconduct. Relevantly, the Privy Council said:

> The care, treatment and safety of the patient must be the principal concern of everyone engaged in the hospital service. The medical staff will have the specialist expertise in their various skills. But the idea of a gulf between the medical practitioners and the administration connected by some bridge over which the appellant had passed "from us to them", as appeared in the course of the argument to be a possible aspect of the appellant's case, must be totally unacceptable if the interest of the patient is to remain paramount. The enterprise must be one of co-operative endeavour.
>
> Once it is clear that a duty existed the question remains in the present case what the extent of the duty was in the circumstances. In ordinary circumstances there is no doubt that a medical practitioner who holds the office of Chief Executive Officer of a hospital is perfectly entitled to leave the day to day clinical decisions to the professional staff of the hospital. His duty as a medical practitioner is adequately performed by such a course. But there may occur circumstances in which more may be required of him. In such circumstances his medical skill and knowledge are undoubtedly relevant. Even if he does not have the specialised expertise of the particular area of medicine in which the problem arises, his general knowledge as a doctor will be of service, as for example by enabling him more readily to ask the relevant kinds of question, such as in the present case when was the child last examined and what was the degree of urgency for the operation.

Dr. Roylance was unsuccessful in his appeal against the General Medical Council's finding of serious professional misconduct.

In Australia, the Chief Health Officer of the Queensland Health Department during the time that Dr. Jayant Patel was employed at Bundaberg Base Hospital was involved in the initial investigations into the actions of Dr. Patel. On 29 November 2007, a Referral Notice was filed by the Medical Board of Queensland in the Queensland Civil and Administrative Tribunal referring the Chief Health Officer to the Tribunal on the basis that there were grounds for disciplinary action amounting to unsatisfactory professional conduct in relation to his investigation and management of complaints against Dr. Jayant Patel.

The Tribunal noted that it was accepted that the Chief Health Officer as a medical practitioner was compelled to comply with the professional standards of his profession while performing the duties of Chief Health Officer, and the standard of care to be applied in Queensland in relation to a medical practitioner whether as administrator or general practitioner is that which is outlined in the Act, namely, care which does not constitute 'unsatisfactory professional conduct' [90].

The Tribunal found, however, that there was no case for the Chief Health Officer to answer in relation to these allegations and made a costs order against the Medical Board of Queensland.

## 6.3 Organisations and Systems

### 6.3.1 Service Standards and Accreditation

The Australian Commission on Safety and Quality in Health Care developed National Safety and Quality

Health Service Standards (NSQHS Standards), which were endorsed by Health Ministers in November 2010 together with a national accreditation scheme. Accreditation to the NSQHS Standards commenced for hospitals and day procedure services across Australia from January 2013. The second edition of the NSQHS Standard was released in November 2017. Health service organisations will be assessed against the second edition of the standards from January 2019 [87].

The Australian Health Service Safety and Quality Accreditation Scheme consists of the following elements [91]:

- Health Ministers endorse the NSQHS Standards and receive information about health service organisations' performance against the NSQHS Standards.
- The state, territory and Commonwealth governments determine the health service organisations required to participate in an accreditation process using the NSQHS Standards. They receive data on the outcomes of accreditation of health service organisations and respond to emerging issues.
- Health service organisations implement the actions required to meet the NSQHS Standards and select an approved accrediting agency to assess their compliance in meeting the NSQHS Standards. This involves a contractual relationship with the accrediting agency that recognises that accreditation data will be provided to Regulators and the Commission for reporting and review.
- The approved accrediting agencies assess health service organisations against the NSQHS Standards. They may also offer to assess against a range of other standards.
- A programme of national coordination within the Australian Commission on Safety and Quality in Health Care that will:
  - Develop and maintain the NSQHS Standards.
  - Approve accrediting agencies to assess health service organisations against the NSQHS Standards.
  - Undertake ongoing liaison with state and territory health departments on opportunities to improve the standards and the accreditation system.
  - Report to Health Ministers annually on safety and quality.

While compliance with the NSQHS Standards is not directly mandated by legislation, compliance may be enforced by jurisdictional health authorities, through directive in the public sector or registration/licensing mechanism in the private sector, and by private health insurers, who may incorporate compliance requirements into their contractual agreements with private hospitals or groups.

### 6.3.2 Medical Records

The medical administrator needs to know the general legal principles that govern ownership of and access to medical records, as complex requests may be escalated to his or her desk.

Physical medical records may be owned by doctors [92] or hospitals [93].

Copyright may exist in medical records. In *Primary Health Care Ltd v Commissioner of Taxation* [94], Justice Stone found that copyright does not automatically exist in medical records such as prescriptions, health summaries, referral letters and consultation notes. She noted that copyright can only exist in medical records where all the authors have been identified and is more likely to be found in a medical record with only one author, because such medical records are more likely to display the level of independent intellectual effort that would justify classifying the record as an original literary work for the purposes of the Copyright Act 1968. The existence of copyright in a medical record must be determined on a case-by-case basis [95].

### 6.3.3 Privacy and Health Records Legislation

The *Privacy Act 1988* (Cth) sets out 13 Australian Privacy Principles (APPs), which must be complied with by Commonwealth government agencies

and private sector organisations that collect and handle personal information.

'Personal information' means any information or opinion about an identifiable individual. 'Personal information' includes sensitive information, which refers to about an individual's health (including predictive genetic information), racial or ethnic origin, political opinions, criminal history, sexual orientation or practices, religious affiliation, philosophical beliefs, membership of a trade union or professional association and biometric information.

The APPs set out requirements with respect to the collection, use, disclosure, storage and handling of personal information. The APPs require, amongst other things, that an entity to which the APPs apply must:

- Only collect personal information to the extent that the information is necessary for one of the entity's functions or activities.
- Collect personal information in a manner that is fair, lawful and not unreasonably intrusive and, where practicable, directly from the individual.
- Ensure as far as practicable that individuals are given information about why their personal information is being collected, how it will be used and who it may be disclosed to.
- Not use or disclose personal information without the consent of the individual unless the use or disclosure is for a purpose that is related to the purpose for which the information was collected and that is within the reasonable expectation of the individual, or one of the other exceptions specified in the Act applies.
- Take reasonable steps to protect personal information it holds from loss, interference, or misuse or from unauthorised, modification or disclosure.
- Take reasonable steps to ensure that personal information the entity collects is accurate, complete and up to date.
- Take reasonable steps to destroy or permanently de-identify the personal information when it is no longer required.

The APPs also require organisations and agencies to take steps to implement practices, procedures and systems to ensure that they comply with the APPs, and to have a privacy policy that sets out how the entity collects personal information and deals with and manages the personal information it holds.

Non-compliance with the APPs is deemed to be an interference with privacy. An individual may complain to the Office of the Australian Information Commissioner (OAIC) who may investigate and seek to resolve the complaint. The OAIC may also conduct 'own motion' investigations. Breach of the APPs can lead to an entity being required to pay compensation or to give an enforceable undertaking, for example, about how it will ensure that non-compliance does not occur in future. Serious or repeated breaches of the APPs can lead to imposition of a civil penalty of up to $1.7 m.

Information contained in medical records, and any other health information, is subject to more stringent requirements than other personal information. However, some specific health-related exceptions apply to the collection, use and disclosure of personal information for clinical, quality assurance and research purposes. Generally, collection, use or disclosure for research purposes is required to be in accordance with guidelines published by the National Health and Medical Research Council.

The APPs also require organisations and agencies to provide access to, and to correct, personal and health information held at the request of the individual. For public sector agencies, requests for access are handled in accordance with applicable FoI laws. Private sector organisations are required to comply with the access and correction requirements set out in the APPs.

All States and Territories impose privacy obligations on their public sector agencies that contain generally similar obligations to the APP requirements summarised above. Most jurisdictions have enacted legislation for this purpose, while South Australia and Western Australia impose these requirements administratively. Where legislation has been enacted, generally similar obligations to those set out in the APPs apply, although the requirements are not uniform between jurisdictions.

Some States and Territories have also enacted legislation specifically for the protection of

health records. Generally, State and Territory health records legislation contains principles that are similar to the requirements of the APPs, although there are important differences, and the requirements are not uniform and vary between jurisdictions.

State and Territory health records legislation generally applies to public sector health providers, although some State health records legislation also applies to the private sector. In some jurisdictions, therefore, private health providers may be required to comply with both the Commonwealth Privacy Act 1988 and with the jurisdiction's own health records legislation.

Various other laws contain privacy obligations that are relevant for health administration:

- The *My Health Records Act 2012 (Cth)* imposes specific requirements for handling information in the Australian Government's electronic health records system. The Office of the Australian Information Commissioner (OAIC) regulates the handling of personal information under the My Health Record system by individuals, Australian Government agencies, private sector organisations and some state and territory agencies (in particular circumstances).
- The purposes for which health care providers may access and use health care identifiers are regulated by the *Healthcare Identifiers Act 2010 (Cth)*.
- State and Territory health services legislation also generally contains privacy and confidentiality obligations that apply to persons involved in the administration and delivery of public health services.

### 6.3.4 Access

As with many other areas of the law that apply to health care, there is a complex web of state/territory and Commonwealth legislation that governs access to medical records in Australia.

Freedom of information (FoI) laws and privacy laws both create a right of access to personal records in Australia. There is no common law right for patients to access medical records [92].

The Commonwealth FoI Act was passed by the Federal Parliament in 1982 and applies to ministers and most government agencies. FoI legislation with similar intent and provisions has also been enacted in each state and territory and also applies to ministers and government agencies, including public health services and hospitals. FoI legislation establishes certain exceptions and exemptions to the right to access information. For example, documents (or parts of documents) that:

- are subject to legal professional privilege;
- are subject to public interest immunity;
- contain private information about other people; or
- contain information provided to a Government agency in confidence;

may not be accessible. Further, access to a patient's medical record may be denied on the basis that such access may create a serious threat to the life or health of an individual.

Decisions refusing access to information are reviewable by independent decision makers.

Privacy laws also outline an individual's right to access their personal information, and the right to change that information if it is wrong or misleading.

### 6.3.5 Qualified Privilege/Statutory Immunity

Quality improvement activities, including peer review, are cornerstones of safety and quality in contemporary health care systems, but participation of health care professionals in those activities may be hindered by fear that:

- Information they contribute about the safety and quality of care they have provided may be incorrectly interpreted by the public or the media;
- Information gained as a result of peer review or other quality improvement activities could be used in litigation against them; or
- They may be exposed to legal action by colleagues, for participating in the assessment

and evaluation of the safety and quality of services provided by those colleagues.

Laws have been implemented in all Australian States and the Australian Capital Territory, and by the Commonwealth, that protect the confidentiality of some information generated by certain quality assurance and improvement activities. In the Northern Territory, legislative protection is limited to Approved Procedures and Quality Assurance Committees declared by the Minister under s.145 of the *Mental Health and Related Services Act*.

While the legislation and its effects differ significantly between jurisdictions, its broad purpose is to facilitate participation in health care quality activities by providing:

- Confidentiality of individually identifying information that becomes known as a result of quality assurance activities.
- Protection from legal proceedings for members of committees that assess or evaluate the quality of health care provided by others.

The legislation reflects acceptance by the relevant legislatures that there is an overriding public interest in maintaining confidentiality of some health care performance information, and prioritises the public interest in participation in quality activities by health care professionals over the public interest in access to information. In enacting this legislation, legislatures have accepted that many health care professionals will only participate in individually identifying quality improvement activities if they are assured of confidentiality.

A number of concerns have been raised about this legislation, in particular in relation to:

- Administrative difficulties
- Over-reliance on, and potential unreliability of, protection in some circumstances
- Over-use, in circumstances where transparency and/or disclosure would be appropriate
- Inconsistency with mandatory reporting obligations, for example, to the Coroner or regulatory boards

The mandatory notification obligation under the National Law does not apply when a member of a committee declared under legislation of a participating jurisdiction forms a reasonable belief of notifiable conduct when undertaking that role but is prohibited from reporting because of qualified privilege legislation [96]. This exception in the National Law does not appear to extend to declarations made under Part VC of the *Health Insurance Act 1973* (Cth).

### 6.3.6 Whistle-Blower Legislation and Protections

A whistle-blower is an insider within an organisation, who reports misconduct or dishonest or illegal activity that has occurred within that same organisation [97]. Effective whistle-blower arrangements protect organisations from fraud and whistle-blowers from reprisals. Medical administrators may have a role in ensuring their organisation's whistleblowing arrangements are designed and operating effectively.

In the Commonwealth public sector the *Public Interest Disclosure Act 2013* (Cth), which came into effect on 15 January 2014, encourages and enables public officials to raise suspected wrongdoing within the Commonwealth public sector. It establishes responsibilities for all Australian Government agencies, Commonwealth companies and public authorities to investigate and act on suspected wrongdoing, and protections from reprisal action and certain immunities from liability for disclosers.

The *Corporations Act 2001* (Cth) also establishes obligations for company officers and others regarding whistle-blower disclosures. These obligations and protections relate to disclosures made by officers, employees or contractors supplying goods or services to a company.

The *Aged Care Act 1997* (Cth) also contains whistle-blower protection provisions in relation to reportable assaults.

All Australian state and territory parliaments have also enacted public interest disclosure laws [98], for the purpose of establishing:

- Reliable means for wrongdoing to be reported.
- Protections for those who make such reports.
- Frameworks to address reported matters.

The comprehensiveness of whistle-blower protection rules in Group of Twenty developed countries was evaluated against 14 best practice criteria. The researchers concluded that [99]:

- Australian public sector protections are fairly comprehensive, with the public sector required to have internal procedures not only for facilitating disclosures but also for protecting and supporting whistle-blowers.
- There remain significant differences between jurisdictions.
- Legislative protection is considerably weaker in the Australian private sector.

### 6.3.7 Workplace Relations

Australia's national workplace relations system is established by the *Fair Work Act 2009* (Cth) and other laws.

Employees are covered by the national workplace relations system if they [100]:

- Work for a constitutional corporation;
- Work in Victoria, the Australian Capital Territory or the Northern Territory (except if they are a law enforcement officer or an executive in the public sector in Victoria, or a member of the Police Force in the Northern Territory);
- Work in the private sector in New South Wales, Queensland or South Australia; or
- Work in the private sector or local government sector in Tasmania.

The key elements of the national workplace relations system include [101]:

- A safety net of minimum terms and conditions of employment.
- A system of enterprise-level collective bargaining underpinned by bargaining obligations and rules governing industrial action.
- Provision for individual flexibility arrangements as a way to allow an individual worker and an employer to make flexible work arrangements that meet their genuine needs, provided that the employee is better off overall.
- Protections against unfair or unlawful termination of employment.
- Protection of the freedom of both employers and employees to choose whether or not to be represented by a third party in workplace matters and the provision of rules governing the rights and responsibilities of employer and employee representatives.

Employers and employees not covered by the *Fair Work Act 2009* remain covered by the applicable state industrial relations system [102]. However, national entitlements to unpaid parental leave and notice of termination or payment in lieu of notice, as well as protection from unlawful termination of employment extend to employees who remain covered by a state industrial relations system [102].

### 6.3.8 Workplace Health and Safety

There are significant workplace safety risks in hospitals, including risks relating to infection, other environmental hazards and workplace violence.

The medical administrator has an important role in ensuring a safe workplace for medical and other staff, and visitors, in the hospital environment.

Workplace health and safety (WHS) is primarily regulated by legislation. Safe Work Australia is the national body in charge of developing national work health and safety and workers' compensation policy. Each state and territory is responsible for regulating and enforcing WHS laws, which establish a framework for prevention, compensation and rehabilitation in relation to workplace-related injury and illness. Their primary focus is on fostering safe work environments and systems of work, by eliminating or controlling risks.

WHS laws impose a duty on employers to take all reasonably practicable steps to protect the health and safety at work of employees. Further, the laws impose a general duty of care to persons other than employees who are present in the workplace, and to persons outside the workplace who are affected by the operations of the workplace.

Employees also have a duty to take care of their own health and safety while at work, and to take care for the health and safety of others in the workplace.

Regulations, standards and codes of practice provide more detailed regulation and guidance.

Under the Intergovernmental Agreement for Regulatory and Operational Reform in Occupational Health and Safety [103], made on 3 July 2008, all states and territories agreed to work cooperatively to harmonise occupational health and safety legislation. Model work health and safety laws, supported by model regulations, codes of practice and a national compliance and enforcement policy have been developed. The model laws and regulations have been implemented without material change in some jurisdictions and implemented with changes of varying degrees of complexity in other jurisdictions. They have not yet been implemented in Victoria or Western Australia [104].

### 6.3.9 Bullying and Harassment

Bullying and harassment have been clearly identified as risks in health care environments.

The Fair Work Act (Cth) provides that a worker is bullied at work if, while the individual is at work in a constitutionally covered business, an individual or group of individuals repeatedly behaves unreasonably towards the worker, or a group of workers of which the worker is a member, and the behaviour creates a risk to health and safety [105]. Reasonable management action carried out in a reasonable manner is not bullying [106].

Examples of bullying include [107]:

- Behaving aggressively.
- Teasing or practical jokes.
- Pressuring someone to behave inappropriately.
- Excluding someone from work-related events.
- Unreasonable work demands.

In accordance with their general WHS responsibilities, persons conducting a business or undertaking have the primary duty to ensure, so far as is reasonably practicable, that workers and other people are not exposed to health and safety risks arising from the business or undertaking. Workers and other people at a workplace have a duty to take reasonable care that their acts or omissions do not adversely affect the health and safety of others.

National anti-bullying laws cover all employees covered by the national workplace relations system as well as outworkers, students gaining work experience, contractors or subcontractors and volunteers [108]. A worker who reasonably believes that he or she has been bullied at work may apply to the Fair Work Commission (FWC) for an order under section 789FC of the *Fair Work Act 2009* (Cth). The FWC may make orders to prevent a person from being bullied at work (section 789FF). Civil remedies are available if such orders are contravened.

Medical administrators are key leaders and managers in preventing and addressing workplace bullying and harassment. They should familiarise themselves with workplace bullying and harassment laws, demonstrate leadership in prevention of bullying and harassment, ensure effective systems are in place to encourage appropriate workplace conduct and identify emerging problems and act promptly when problems are identified.

Specialist trainees often have a relationship with a professional college, which oversees their formal training, as well as a hospital, in which they play a service role. Medical administrators should ensure responsibilities for the management of trainees in hospitals, including management of allegations about bullying and harassment, are clearly delineated and that any relevant allegations are investigated and managed promptly and effectively.

### 6.3.10 National Agreements

Health care in Australia is delivered by a complex network of public and private providers.

The two main agreements that define roles, responsibilities and funding arrangements for health care in Australia are the National Healthcare Agreement and the National Health Reform Agreement.

### 6.3.11 National Healthcare Agreement

The National Healthcare Agreement 2012 is one of six national agreements that cover the key service areas of health, education, skills and workforce development, disability, affordable housing and indigenous reform [109]. It was signed in August 2011. Its objective is to improve health outcomes for all Australians and the sustainability of the Australian health system. It encompasses the collective aspirations of Commonwealth, State and Territory governments on prevention, primary and community care, hospital and related care and aged care [110].

The National Healthcare Agreement 2012 defines:

- The parties' commitment to addressing the issue of social inclusion, including responding to Indigenous disadvantage.
- The agreement of all governments that Australia's health care system should be shaped around the health needs of individual patients, their families and communities.
- A commitment to focusing on prevention of illness and injury and maintenance of health, not simply the treatment of illness.
- Support for an integrated approach across the continuum of care.
- A commitment to transparency and performance reporting.

The Agreement incorporates a commitment to the following Medicare principles:

(a) Eligible persons are to be given the choice to receive, free of charge as public patients, health and emergency services of a kind or kinds that are currently, or were historically provided, by hospitals.
(b) Access to such services by public patients free of charge is to be on the basis of clinical need and within a clinically appropriate period.
(c) Arrangements are to be in place to ensure equitable access to such services for all eligible persons, regardless of their geographic location.

Clauses 24–31 of the Agreement define the respective roles of the Commonwealth, States and Territories, private providers and community organisations.

### 6.3.12 National Health Reform Agreement

The National Health Reform Agreement was entered into by all Australian governments (Commonwealth, State and Territory) in 2011 and reflects an earlier agreement by the Council of Australian Governments (COAG) to reform the organisation, funding and delivery of health care and establish new financial and governance arrangements for Australian public hospital services to ensure their ongoing sustainability [111].

Section 1 of the National Health Reform Agreement defines its scope as follows:

1. This Agreement:
   (a) Sets out the shared intention of the Commonwealth, State and Territory (the States) governments to work in partnership to improve health outcomes for all Australians and ensure the sustainability of the Australian health system.
   (b) Introduces new financial and governance arrangements for Australian public hospital services and new governance arrangements for primary health care and aged care.
   (c) Implements National Health Reform as agreed by the Council of Australian Governments (COAG) Heads of Agreement on National Health Reform in February 2011.

(d) Builds on and reaffirms the Medicare principles and high-level service delivery principles and objectives for the health system in the National Healthcare Agreement (agreed by COAG in 2008 and amended in July 2011).
(e) Supersedes the National Health and Hospitals Network Agreement and the Heads of Agreement on National Health Reform.
(f) Recognises that:
- The States are the system managers of the public hospital system.
- The Commonwealth has full funding and programme responsibility for aged care (except where otherwise agreed) and has lead responsibility for GP and primary health care.

(g) Builds on and complements the policy and reform directions and outcomes, progress measures and outputs outlined in the National Healthcare Agreement (NHA). This Agreement should be read in conjunction with the NHA.
(h) Is subject to the Intergovernmental Agreement on Federal Financial Relations (IGA FFR) and should be read in conjunction with that Agreement and subsidiary schedules.

The National Health Reform Agreement committed to the establishment of local hospital networks by States by 1 July 2012 and implementation of an activity-based funding system, and included a commitment from the Commonwealth to fund a high proportion of 'efficient' public hospital cost growth.

To support the implementation of the National Health Reform Agreement, three national bodies were established [112]:

- The Independent Hospital Pricing Authority to develop a national funding methodology, including classifications for activity-based funding; a national efficient price for services; block funding criteria; resolve cross-border issues and how to apply the national efficient price to eligible private patients.
- The National Health Funding Body to receive, administer and distribute Commonwealth and State activity-based funding to HHSs.
- The National Health Performance Authority to provide clear and transparent reporting on HHSs (and equivalent organisations in other States and Territories); monitor performance; develop indicators and maintain the MyHospital website.

The role of the Australian Commission on Safety and Quality in Health Care, which had been established in 2006, was further specified in the National Health Reform Agreement, including to 'expand its role of developing national clinical standards and strengthened clinical governance'.

In its 2014–2015 budget, the Commonwealth Government announced its intention to consolidate the functions of these (and other) bodies into a single new Health Productivity and Performance Commission. This structural reform did not, however, progress. The Independent Hospital Pricing Authority and the National Health Funding Body continue to operate, while the National Health Performance Authority ceased operations on 30 June 2016, with its functions transferring to the Australian Institute of Health and Welfare, the Australian Commission on Safety and Quality in Health Care and the Department of Health.

## 6.3.13 Reflections

In this chapter you learned:

### 6.3.13.1 Patient Care

- Adverse events are common in health care. A significant proportion is associated with care that does not meet accepted standards.
- Doctors may owe a duty of care to third parties who are not their patients.
- The standard of care for professionals has been defined in legislation in all states as the standard widely accepted in Australia by a significant number of respected practitioners in the field as competent professional practice in the circumstances.

- To succeed in an action in negligence a plaintiff must demonstrate that a breach of the standard of care caused the relevant injury or loss, and the injury or loss was not too remote a consequence of the breach.
- The aim of an award of damages is to 'make good to the plaintiff, so far as money can do, the loss which he has suffered'.
- Open disclosure is an open discussion with a patient about an incident(s) that resulted in harm to that patient while they were receiving health care. Compliance with the Australian Open Disclosure Framework is not a legal requirement but establishment of an appropriate programme is mandated under the *National Safety and Quality Health Service Standards*.
- Independent health complaint entities have been established in all jurisdictions. Section 150 of the National Law regulates communication between health complaint entities and National Health Practitioner Boards.
- At common law, adults with the necessary decision-making capacity can choose whether to undergo medical treatment, and medical practitioners proposing to treat patients are responsible for providing sufficient information to them. People aged 18 years or more are presumed to have capacity to make decisions to accept or refuse treatment. People aged less than 18 years are regarded as minors in Australia. Parents or legal guardians of minors can consent to their health care. The common law also recognises the concept of the mature minor.
- The common law recognises anticipatory refusals of medical treatment, which are treated as binding on doctors if they are clearly established, applicable to the current circumstances and made without undue pressure from others. A number of Australian jurisdictions have introduced legislation that enables patients to record their wishes about end-of-life care.
- The High Court has recognised the courts' *parens patriae* jurisdiction in authorising treatment for children, but the common law otherwise provides little guidance on substitute decision-making in health care. State and territory guardianship and mental health legislation provides detailed rules for substitute decision-making for the medical treatment of adults who are deemed incapable of giving consent.
- There is no duty to provide nutrition and hydration if a competent patient expressly refuses consent. Supreme Courts have jurisdiction to resolve disputes in cases where agreement cannot be reached with substitute decision makers about the incompetent patient's medical care.
- Regulation of organ donation is the responsibility of the States and Territories, the Parliaments of each of which have enacted legislation covering organ donation and transplantation, including laws governing consent.
- A patient must have testamentary capacity to make a valid will. A finding of incapacity in one area does not automatically mean capacity is lacking in another area. Statutory rules on executing a will are defined in legislation in all Australian jurisdictions.
- Coroners Courts and the role of the Coroner are established by legislation in each state and territory. There is considerable variation between jurisdictions in both the definitions of reportable deaths and the penalties for non-compliance with reporting requirements.

#### 6.3.13.2 Professionals

- The Health Practitioner National Law as it applies in each state defines requirements for registration of medical practitioners.
- A person who is not registered cannot use the titles 'medical practitioner' or 'medical specialist' or titles of a number of medical specialties recognised under the National Law. The title 'doctor' is not, however, protected. Medical administration is included on the list of approved medical specialties and the title 'specialist medical administrator' is protected.
- A registered medical practitioner who holds non-practising registration must not practise the profession, but can use the protected title 'medical practitioner'.
- The Board has defined 'practice' as any role, whether remunerated or not, in which the

individual uses their skills and knowledge as a health practitioner in their profession. Practice is not restricted to the provision of direct clinical care.
- Health practitioners, as soon as practicable after forming a reasonable belief in the course of practising their profession that a registered medical practitioner has engaged in notifiable conduct or a medical student has an impairment that in the course of the student undertaking clinical training may place the public at substantial risk of harm, must notify AHPRA. A similar obligation applies to employers of registered medical practitioners. Exceptions apply in Western Australia and Queensland in relation to the obligations of treating medical practitioners—refer to the National Law as it applies in those jurisdictions.
- Voluntary notifications may also be made under the National Law.
- There is a national standard for credentialing and defining scope of clinical practice and a number of states and territories have published policy and/or guidance documents to support its local implementation.
- The tort of 'negligent credentialing' has been recognised in the United States of America.
- Public sector medical indemnity insurance arrangements are managed by state and territory governments. Different arrangements are in place in each jurisdiction, with particular differences relating to insurance of visiting medical officers, private practitioners and students.
- Medical administrators who do not have a direct clinical role may still be disciplined for unsatisfactory professional conduct if patient care falls below expected standards.

#### 6.3.13.3 Organisations and Systems

- Accreditation to the National Safety and Quality Health Service Standards commenced for hospitals and day procedure services across Australia from January 2013. The second edition of the standards was published in 2017. Compliance may be enforced by jurisdictional health authorities (through directive in the public sector or registration/licensing mechanism in the private sector) and by private health insurers, who may incorporate compliance requirements in their contractual agreements with private hospitals or groups.
- Physical medical records may be owned by doctors or hospitals. Copyright may exist in medical records.
- The *Privacy Act 1988* (Cth) sets out 13 Australian Privacy Principles, which must be complied with by Commonwealth government agencies and private sector organisations that collect and handle personal information.
- All States and Territories impose privacy obligations on their public sector agencies that contain generally similar obligations to the APP requirements summarised above. Most jurisdictions have enacted legislation for this purpose, while South Australia and Western Australia impose these requirements administratively. Some States and Territories have also enacted legislation specifically for the protection of health records. Generally, State and Territory health records legislation contains principles that are similar to the requirements of the APPs. Various other laws contain privacy obligations that are relevant for health administration.
- Freedom of information laws and privacy laws both create a right of access to personal records in Australia. There is no common law right for patients to access medical records.
- Laws have been implemented in all Australian States and the Australian Capital Territory, and by the Commonwealth, that protect the confidentiality of some information generated by certain quality assurance and improvement activities. In the Northern Territory, legislative protection is very limited.
- In the Commonwealth public sector, the *Public Interest Disclosure Act 2013* (Cth) encourages and enables public officials to raise suspected wrongdoing. Other Commonwealth legislation also establishes obligations and/or protections in certain circumstances. All Australian state and territory parliaments have also enacted public interest disclosure laws.
- Australia's national workplace relations system is established by the *Fair Work Act 2009*

(Cth) and other laws. Employers and employees not covered by the *Fair Work Act 2009* remain covered by the applicable state industrial relations system.

- Each state and territory is responsible for regulating and enforcing workplace health and safety laws, which impose a duty on employers to take all reasonably practicable steps to protect the health and safety at work of employees. Further, they impose a general duty of care to persons other than employees who are present in the workplace, and to persons outside the workplace who are affected by the operations of the workplace.
- Model work health and safety laws, supported by model regulations, codes of practice and a national compliance and enforcement policy have been implemented without material change in some jurisdictions and implemented with changes of varying degrees of complexity in other jurisdictions.
- Bullying and harassment have been clearly identified as risks in health care environments. Medical administrators are key leaders and managers in preventing and addressing workplace bullying and harassment. They should familiarise themselves with workplace bullying and harassment laws, demonstrate leadership in prevention of bullying and harassment, ensure effective systems are in place to encourage appropriate workplace conduct and identify emerging problems and act promptly when problems are identified.
- Specialist trainees often have a relationship with a professional college, which oversees their formal training, as well as a hospital, in which they play a service role. Medical administrators should ensure responsibilities for the management of trainees in hospitals, including management of allegations about bullying and harassment, are clearly delineated and that management of such allegations is prompt and effective.
- The two main agreements that define roles, responsibilities and funding arrangements for health care in Australia are the National Healthcare Agreement and the National Health Reform Agreement.

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# 7 Clinical Governance and Risk Management for Medical Administrators

Alison Dwyer

**Learning Objectives**
By the end of this chapter, the learner should be able to understand:

- Fundamental elements of Clinical Governance in Health Services, including the structures, processes and frameworks that articulate the key roles, responsibilities and accountabilities at all staff levels from Board, management and clinicians, and enabled by robust data, culture, education and training and a continuous learning environment
- Current literature relating to Clinical Governance and Risk Management
- Elements of clinical governance which significantly impact medical staff
- The value of medical engagement in clinical governance and techniques to improve engagement
- The role of the Medical Administrator within a Clinical Governance system, as patient advocate on the Executive and translator between clinicians and management

## 7.1 Introduction

One of the fundamental roles that Medical Administrators can lead in healthcare is that of Clinical Governance. There are a number of books, journal articles and position papers outlining best-practice clinical governance, which will be briefly discussed in Sect. 7.2. However, this chapter will also focus on the role of the Medical Administrator in these systems, particularly if you are the senior executive in the healthcare organisation with ultimate Clinical Governance responsibility—Sect. 7.3. This chapter will also tailor the discussion to focus on medical staff issues—Sect. 7.4, framed around which of the National Safety and Quality Health Service Standards (NSQHSS) are particularly relevant for medical staff, how to engage medical staff, in Sect. 7.5, and where there needs to be a different approach to senior medical staff and junior medical staff.

This chapter will also have an Australian focus, and use state-based examples from Victoria. However, the core principles should be translatable to other states and countries. Please refer to your own state-country-based documents for subtle differences.

Please also note that Clinical Governance is a very broad concept, and inter-relates with Performance Development and review, supervision of junior staff, credentialing and scope of clinical practice—Sect. 7.6. In addition, Clinical

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E. Loh et al. (eds.), *Textbook of Medical Administration and Leadership*,
https://doi.org/10.1007/978-981-10-5454-9_7

governance is part of a continuum of improving patient care, as a downstream component to experimental and translational research for improving patient care. These areas are covered in other chapters, so will be referred to as they relate to the overall framework.

## 7.2 Structures, Systems and Processes for Clinical Governance

Clinical Governance arose in the late 1990s from the United Kingdom, to ensure high quality care are considered with the same level of importance as financial control and service performance. Scally and Donaldson, 1998, defined Clinical Governance as 'a system through which NHS organisations are accountable for continuously improving the quality of their services and safeguarding high standards of care by creating an environment in which excellence in clinical care will flourish' [1].

The purpose of a Clinical Governance Framework is to 'set, monitor and improve the performance of the organisation and communicate the importance of the patient experience and quality management to all members of the workforce … [to] maintain and improve the reliability and quality of patient care, as well as improve patient outcomes' (National Safety and Quality Health Service Standards (NSQHSS) [2].

From a practical perspective, this means the systems to ensure that clinical care provided to patients is as safe, effective and appropriate as possible.

The science of quality improvement and Clinical Governance has emerged over the last few decades, ignited by the publication of *To Err is Human* by the Institute of Medicine in 1999, highlighting medical errors and the impact on patient safety [3] in the United States. The *Quality in Australian Health Care Study* in 1995, demonstrated that 16.6% of admissions studied were associated with an adverse event that resulted in disability or a longer hospital stay for the patient and was caused by healthcare management. In addition, 51% of those adverse events were considered preventable [4].

There are countless examples of poor Clinical Governance leading to poor patient outcomes, with a number of high profile failures including Paediatric Cardiac Surgery at Bristol Royal Infirmary Public Inquiry in 2001 [5], chaired by Professor Ian Kennedy, and the Mid Staffordshire NHS Foundation Trust Public Inquiry, chaired by Robert Francis [6]. Russell and Dawda summarise the key recommendations identified of national and international inquires, and states that "what goes on in hospitals is about patients, and the quality and safety of patient care must be placed by all parties—governments, bureaucrats, clinicians, and administrators—above all other aims. Patient care is their fundamental, core duty. That does not preclude efforts to reduce costs, increase efficiencies, and restructure and reform systems, but these efforts cannot be at the expense of providing best quality safe care" [7].

The importance of Clinical Governance is as relevant in 2017 as over the last decade, with the *Targeting Zero: Report of the Review of Hospital Safety and Quality Assurance in Victoria* in 2016, commissioned by the Minister of Health following the discovery of a cluster of tragically avoidable perinatal deaths at Djerriwarrh Health Services [8]. The recommendations from the review include:

- Clear expectations for boards of all hospitals to have safety and quality as a core focus,
- Increased Board skill mix in substantive clinical governance and consumer representation.
- All hospitals should be held to account for improving safety and quality of care, regardless of their size or sector.
- The flow of information in the health system must ensure deficiencies in care are identified and focus attention on opportunities for improvement.
- All hospitals should have access to independent clinical expertise to help identify deficiencies in care and focus attention on opportunities for improvement.
- Increased performance assessment framework from state department.
- Clinical leaders must be engaged to strengthen, direct, and lead efforts to improve safety and quality of care.

- Stronger focus on improving patients' experience of care.

There are also a growing body of literature of specific initiatives to improve patient outcomes, such as antibiotic stewardship and hand hygiene to reduce rates of Methicillin Resistant *Staphylococcus aureus* [9], or reduction in hospital-wide mortality and out-of-ICU cardiac arrest as a result of the introduction of Rapid Response Teams [10].

In addition, a landmark study, titled Deepening Our Understanding of Quality Improvement in Europe (DUQuE), involved a multi-methods study across eight European countries studying the effectiveness of quality improvement systems in hospitals. The DUQuE study demonstrated strong associations between quality management and clinical effectiveness of care, and to a less extent for patient safety culture [11]. The *Deepening Our Understanding of Quality Improvement in Australia (DUQuA) study* is in the final stages of implementation, with 32 hospitals, 4000 sets of data and feedback from almost 1900 participants across all states within Australia, mirroring the methodology of the European study, available at the DUQuA internet site 2017. At the time of publication, the DUQUA results were yet to be released.

Leggat and Balding [12], in their qualitative study on the implementation of quality systems in Australian hospitals, conducted interviews and focus groups with 270 board members, managers and staff. Leggat and Balding found that quality was consistently described as an extra set of tasks to do, rather than a means to creating sustained, safe, quality care, and that there was a lack of understanding of how to effect change in the complexity of hospitals that has led to boards and senior managers to execute a technical, top-down approach based on compliance and reactive risk.

Healthcare organisations are increasingly analysing the most appropriate mechanisms for reducing unwarranted variation in care, as highlighted through mechanisms such as the Australian Atlas of Healthcare Variation [13]. Further, some Australian health services are exploring the concepts of high reliability organisations as lead by John Hopkins Medicine in the United States, of fractal-based quality management [14], and actively organising for a culture of high reliability where the organisation is constantly adapting, tweaking and solving smaller problems as they emerge, preventing more widespread failures and improving safety [15]. High reliability has been termed the third wave of innovation in patient safety, following from that of technical advances and standardising procedures [16].

The first section of this chapter briefly outlines the fundamental principles for exemplary Clinical Governance structure, systems and processes that Medical Administrators should ensure are implemented effectively in their organisations.

### 7.2.1 Principles of Implementing Clinical Governance at a Health Service Level

At health services, patient safety and quality improvement are an integral part of our culture. Organisations should facilitate the provision of the highest standard of patient safety, quality and risk management through a robust and effective Clinical Governance Framework that includes monitoring clinical outcomes, clear lines of accountability for clinical care, an effective process for identifying and managing risk and monitoring and addressing problems in performance.

The Clinical Governance Framework should be underpinned by the domains of quality as outlined in the relevant jurisdictional health department. The Victorian Clinical Governance Policy Framework, which was refreshed in June 2017 in light of the Targeting Zero report includes: [17].

1. Leadership and culture—visible, accountable and purposeful leadership at all levels of the health service is required to cultivate an inclusive and 'just' culture and facilitate the delivery of high quality healthcare
2. Consumer partnerships—effective consumer partnerships are crucial for improving healthcare outcomes, organisational design and the patient experience

3. Workforce—all health service staff must have the appropriate skills and knowledge required to fulfil their roles and responsibilities within the organisation
4. Risk management—all health services must have in place a broad-based risk management system that integrates organisational, financial, occupational health and safety and clinical risk
5. Clinical practice—staff must be effectively supported to continuously improve the safety and appropriateness of clinical care through evidence-based best practice

New South Wales Health has established a Clinical Excellence Commission to provide oversight of Clinical Governance within New South Wales Health [18].

The components of the frameworks across the jurisdictions are relatively similar, and should be adapted by the health services within the relevant jurisdiction.

Figure 7.1 outlines an example of the high-level components within a Clinical Governance Framework for a health service.

The Clinical Governance Framework should also be supported by:

- Role accountabilities within the Executive and management hierarchy—this will depend on the size and nature of the organisation. Often the Executive responsibility for Clinical Governance aligns with the Chief Medical Officer/Medical Administration portfolio.
- A committee and reporting structure that encompasses all clinical units and which reports ultimately to the Executive and the Board. This may have separate structures for unit-based or Division-based Clinical Governance, but might also have specific committees established for specialised purposes, such as Medication Safety, Preventing harm from Falls. The size and complexity of the committee structures will be dependent on the organisational size and specialty.

### 7.2.2 Roles and Responsibilities

Clinical Governance is a shared responsibility that functions at all levels of the organisation and includes a programme of review and improvement at every point from the Board, to the Executive, the management team, clinicians and non-clinical staff.

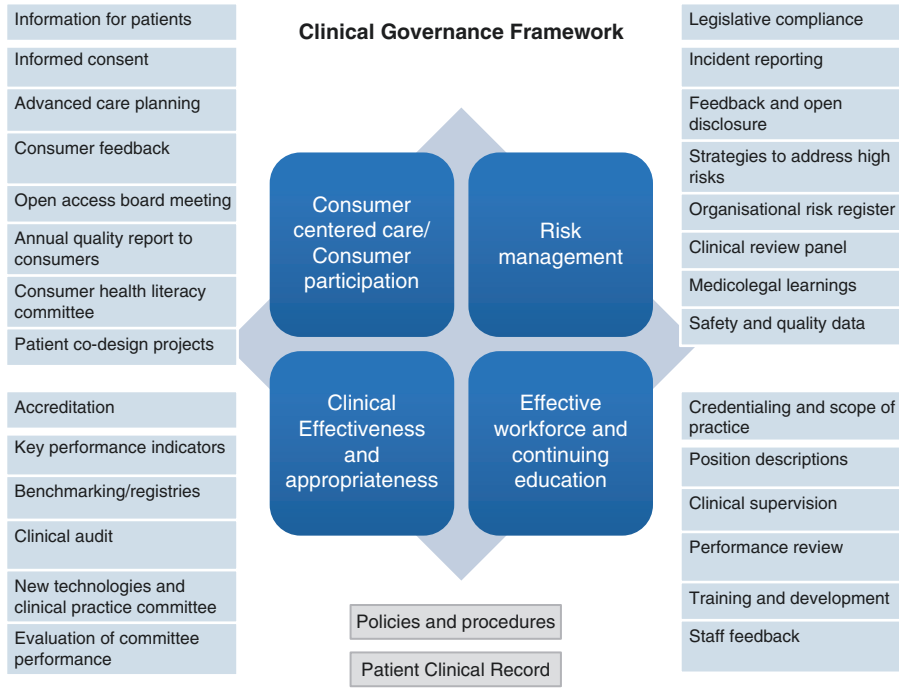


**Fig. 7.1** Example domains and components of Clinical Governance Framework for a health service

**The Board** is responsible for oversight of the Clinical Governance Framework. Their role includes demonstrating a commitment to good governance and supporting an open and transparent management culture.

**The Chief Executive Officer and the Executive** are responsible for leading the organisation in a manner that is fair, open and transparent and demonstrates a commitment to good Clinical Governance. They must ensure that the appropriate systems and processes, including policies and procedures, are in place to support excellence in clinical care and patient safety, to report and manage incidents and facilitate consumer feedback. In addition they are responsible for establishing a risk management framework that facilities the identification, monitoring and management of risks to the organisation, patients, staff and visitors. They must ensure a positive and timely organisational response to change.

**Directors and Medical Directors of Clinical Service Units and Business Units** are responsible for ensuring that the Clinical Governance Framework is appropriately applied within their areas. This includes that policies and procedures are maintained, that work practices are compliant with organisational standards and that risks are reviewed and remedial action completed. They need to ensure that staff are appropriately trained and qualified to meet the requirements of their role in clinical practice. Directors must ensure that systems for reviewing clinical outcomes are maintained and performance issues are addressed.

**Unit/Department Heads and Managers** are responsible for applying the Governance Framework within their areas of accountability. This means establishing clear lines of accountability within their unit or department for the quality and safety of the services provided. Organisational policies and procedures must be maintained and embedded into local practice and quality business plans should include work plans for continuous improvement in systems and content of care. Managers at this level are required to ensure that incident management systems are appropriately applied and a systematic response to local issues and performance improvement occurs. Managers should also ensure that appropriate opportunities for training, education and performance review are provided. All staff should embrace the responsibility for risk management at a local level.

**Clinical Staff** are expected to comply with policies and procedures that apply to their area of practice, report incidents that have or could impact on patient safety and be mindful of legislative requirements in undertaking their role. They should have a clear scope of practice expressed in their position description, supported by an appropriate credentialing process. Staff should participate in regular performance review with their manager, have regular review of their scope of practice, and seek access to appropriate ongoing education and training. Clinical staff must engage in the organisation's systems and processes for monitoring service delivery and initiatives to improve care delivery.

**Consumers** should be encouraged and supported to be active participants in decisions regarding their healthcare through the provision of appropriate information on the clinical care provided, informed consent process and opportunity to provide feedback on the care they receive.

These roles and responsibilities should also be explicit in Position Descriptions, and the staff should be performance managed against their accountabilities.

Bismark et al. explored the role of the Board in Clinical Governance in 2013, which surveyed the Board Chair, Quality Committee Chair and two members of the Board in all 85 Victorian Health Services. Most Boards reviewed medication errors and hospital-acquired infections at least quarterly (77%), and externally benchmarked performance (50%) with other health services. As such the Board members need to understand quality and safety frameworks, with 90% of those surveyed in Bismark's study indicated that additional training in quality and safety would be advantageous [19].

### 7.2.3 Clinical Governance Committee Structures

The Clinical Governance Framework should be supported by Committee Governance structures that facilitates an integrated model of decision-making, consumer participation, clinical effectiveness and

risk management across all areas of the organisation by bringing together different areas of responsibility to achieve shared plans.

The Committee structure seeks to ensure that safety, quality and risk management should be embedded into the organisation's daily business by building quality structures that operate across the organisation and address key issues such as medication safety, mortality and morbidity review and the monitoring of new technologies through various standing committees.

These committees enact the domains of Clinical Governance in a practical sense. The structure should also ensure that there is appropriate governance for each of the NSQHSS.

The terms of reference for each committee should reflect the specific nature of their work and their delegated role for clinical safety and quality. Committee documentation should also include:

- Minutes and Agendas for all meetings.
- Risk Assessment of key Risks relevant for the committee.
- Action plan developed against the key risks.
- Actions register, to ensure actions are documented with person responsible and timeframes for completion of actions.

As part of the terms of reference of all key Governance Committees, Committees should be reviewed annually or biannually. This ensures that the terms of reference and membership of the committee remain relevant and that the committees consider their effectiveness against their roles and responsibilities.

The structure and size of the committees will depend on the organisation size, specialty breadth, need for cross-campus and acute, subacute and community representation.

Figure 7.2 provides an example Committee structure for Clinical Governance.

The specific roles of the committee hierarchies are outlined below:

#### 7.2.3.1 Board-Level Clinical Safety and Quality Committee

Usually a subcommittee of the Board, the Committee is a forum for in-depth review of quality issues as a governance level. This committee should include representatives from the Board, including members with clinical experience, Board members as consumer representatives, executive staff, senior medical and nursing staff. The Subcommittee may also include non-Board consumer and community representatives, who represent the diverse cultural and community backgrounds of the health service catchment.

The committee:

- Provides the strategy and direction for quality and safety within the health service.
- Monitors compliance with key quality and safety projects, organisation-wide clinical indicators, complaints and incident data, patient satisfaction results and other key quality indicator data.
- May receive updates on quality assurance activities such as accreditation, credentialing, clinical registry results, clinical audit and legislative compliance activity.

#### 7.2.3.2 Executive-Level Quality and Safety Committee

The Executive-Level Quality and Safety Committee takes an organisation-wide oversight of Clinical Governance. Specific accountabilities usually include accreditation compliance, organisation-wide quality and safety, enterprise risk management, credentialing and organisation-wide indicators to ensure quality, safety and appropriate clinical risk management. The membership usually includes the Executive, Clinical Service Unit Directors, Medical Directors and the representatives from other key directorates such as Pharmacy, Allied Health and Radiology. Often Executive-level committees also have community or consumer representation.

#### 7.2.3.3 Cross Organisation Quality and Safety Committees

There are a number of committees that have a specific role in the governance of a particular clinical risk/quality issue. Some of these committees are time limited. Most organisations have aligned such committees to the NSQHSS. Examples of these committees include:

- Clinical Governance
- Partnering with Consumers
- Preventing and Controlling Healthcare Associated Infections

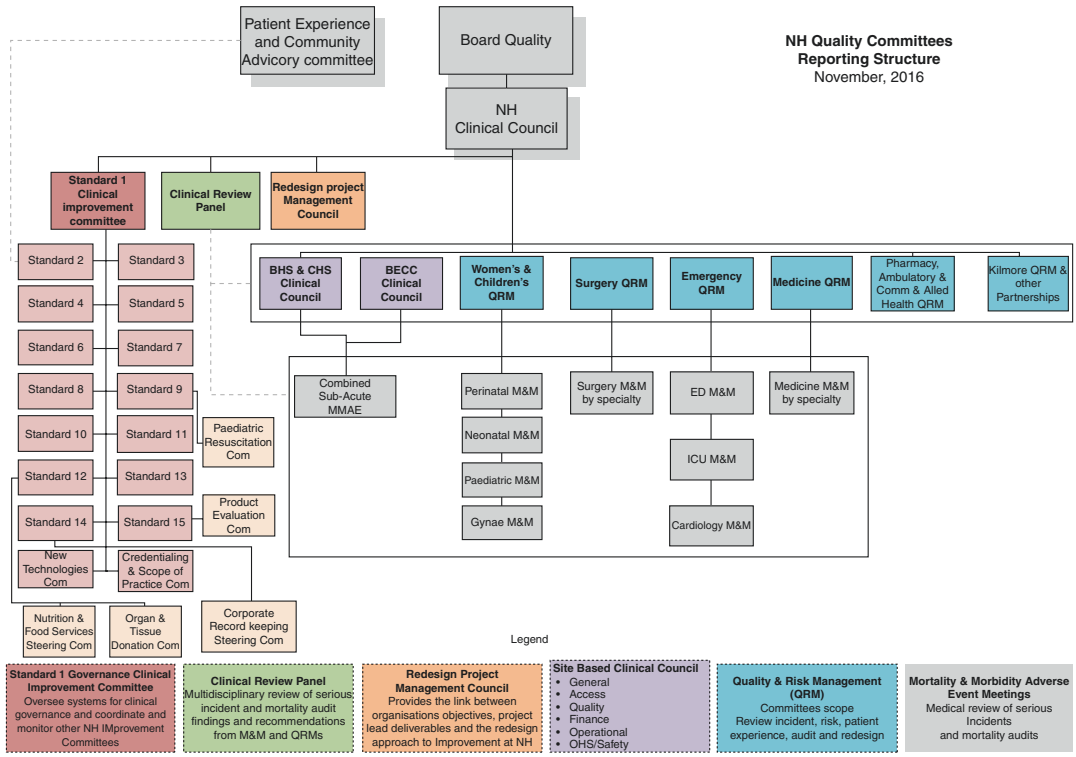


**Fig. 7.2** Committee structure for Clinical Governance. Northern Health's committee structure incorporates (1) Standards Governance, in alignment with the ACSQHC Standards and Australian Council for Healthcare Standards EquipNational, (2) Multi-disciplinary peak clinical review panel, to review serious incidents in a transparent an open culture, (3) Project management, to provide organisational oversight of redesign projects, (4) Site-Based Clinical Councils for the various sites within the health service, which incorporate quality, access, finance operations, occupational health and safety, (5) Division-Level Quality and Risk Management Committees with similar specialty groupings, (6) Unit-based mortality and morbidity committees. All committees report via a single Executive-level committee (Clinical Council), ultimately to Board Quality and Safety subcommittee, and to the Health Service Board. The Committees are evaluated on an annual basis, and may change over time as the organisation's structure and function change

- Medication Safety
- Comprehensive Care (including Falls Prevention, Pressure Injury, Nutrition)
- Communicating for Safety
- Blood Management
- Recognising and Responding to Acute Deterioration
- Clinical Policies and Procedures Committee
- New Technology and Clinical Practice Committee

#### 7.2.3.4 Division-Level or Unit-Level Quality and Safety Committees

There are a range of specialty committees that may be appropriate, depending on the size and complexity of the organisation. These committees have often arisen from mortality and morbidity committees at specialty level.

### 7.2.4 Enablers of Exemplary Clinical Governance

The following enablers of good clinical governance are essential to support clinicians and managers determine the priorities for the organisation.

- Capability framework
- Education strategy
- Project support/administrative support
- Data management

For brevity reasons, this chapter will not cover in-depth the capability framework, education, or project support enablers, but will comment on data management.

### 7.2.5 Data Management to Support Clinical Governance

#### 7.2.5.1 Key Performance Indicators

Hospital-wide clinical performance indicators should be reported at key clinical governance committees. Indicators are measured against past performance and linked to strategies to reduce rates of adverse events.

Example indicators include:

- Clinical indicator suite
- Complaints data such as the number and type of complaints, completion of review within timeframes, implementation of recommendations arising from complaints within timeframes
- Incident data such as the number of incidents, number of incidents with harm ISR1/2 or SAC1/2, completion of incident reviews within timeframes, and implementation of recommendations arising from incidents within timeframes
- Medication Safety key performance indicator suite
- Statement of Priority indicators such as hand hygiene rates, infection surveillance rates, aged care quality indicators
- Benchmarked mortality data such as Hospital Standardised Mortality Ratios
- Patient satisfaction measures, for example, Victorian Hospital Experience Survey results

### 7.2.6 Benchmarking

Health services should participate in a range of benchmarking activities including infection control monitoring such as Victorian Healthcare Associated Infections Surveillance System (VICNISS), various national clinical benchmarking databases and clinical registries such as the Australian and New Zealand Society of Cardiac and Thoracic Surgeons database and the Health Roundtable. In addition, health services should consider approaching other similar health services to compare practices, processes, and outcomes to ensure that their practice is consistently reviewed against current industry standards and opportunities for improvement are identified.

The key is to determine what depth and breadth of data should be reviewed at the various levels of the organisation. Figure 7.3 outlines principles for data management at the various committee levels.


**Fig. 7.3** Principles of levels of Data at various committees

| Standard 6: Clinical Handover | | | | | | |
|---|---|---|---|---|---|---|
| | Target | Q3 | N= | D= | Q2 | Tracking |
| % of nursing handovers documented in the care plan by staff on the previous shift | 100% | 87.8% | 203 | 231 | 89.8% | |
| % of patients who stated that nursing staff include them when they are giving handover | 80% | 83.6% | 154 | 187 | 71.2% | |
| % of patients who stated that medical staff include them when they are doing ward rounds | 80% | 85.0% | 159 | 187 | 80.9% | |
| % patients who felt that they could ask questions during medical ward rounds | 80% | 69.3% | 160 | 231 | NA | |

- Additional question relating to the patients opinion on whether they feel they can ask questions of medical staff during ward rounds. There is no comparative data at this stage.

**Fig. 7.4** Example traffic light data system to support Clinical Governance

It is also important to consider the nature and format of data presentation, to assist decision makers and clinicians. High-level trends can be tracked over time with Statistical Process Charts/Run charts, with control limits to highlight those varying from controls.

Alternatively, heat maps or traffic light systems can be used to identify indicators who have flagged beyond their limits (Fig. 7.4).

### 7.2.7 Implementing a Clinical Governance System

Implementing a clinical governance system which involves all the aforementioned components requires using appropriate change management principles including:

- Establish the right Clinical Governance system and processes for the organisation
- Develop a change management and a communication strategy
- Implement the system
- Evaluate the system

There are an extraordinary large number of diagnostic, mapping and measurement methodologies available to support the implementation of a clinical governance system. Examples include:

- Systems thinking [20]
- Improvement Science, with Testing and Learning Cycles - Plan, Do, Study, Act (PDSA) Cycles [21]
- Patient safety measurement tools [22]
- Root cause analysis methodology. Most state health departments provide Root Cause Analysis training and tools for clinicians, such as the Victorian Department of Health and Human Services. It is recommended that the jurisdictional frameworks are utilised for specific methodology relevant for the state [23]

The choice of tools and methodologies used by the organisation will be guided by the state department guidelines, organisation's culture and existing systems, and the context of the specific clinical situation being reviewed.

From practical experience, it is important to be aware of the types of recommendations generated from case review and improvement science, and the cultural context of the organisation that requires the change. Recommendations should be Specific, Measurable, Assignable, Realistic, and Time-related (S.M.A.R.T.) where possible [24], and of as few as possible to address the root cause of the incident. Raj Behal in his Safety Steps framework outlines a 100-point Treatment Plan, which classifies recommendations according to a hierarchy of effectiveness for removing or controlling the hazard. Removing the hazard

or addressing the human factors contributing to the incident is rated more effective than management controls or managing culture [25].

Most quality improvement projects arise due to a perceived gap in performance and patient outcomes. By necessity, there will need to be change to address the gap. However, all quality improvement projects need to consider the workload impacts on the clinicians and front-line staff. Hayes, Batalden and Goldmann [26], state that years of study of innovation diffusion, change management and behaviour change have demonstrated that increasing workload demands, especially when not understood, perceived to be unneeded, or felt unlikely to lead to improvement, leads to change fatigue and resistance cynicism, burnout and turnover. In addition, if true and sustainable improvement in outcomes is to be realised, we must, at all levels of the system, understand and aim to embed a work smarter, not harder approach and limit the workload—including improvement-related workload—on those charged with delivering care.

### 7.2.8 An Integrated and Consistent Approach to Clinical Governance

Once all of the elements, roles, committees, policies and frameworks are implemented, it is essential to reflect on whether all of the elements are integrated, and consistent. Figure 7.5 outlines a conceptual diagram of ensuring consistency of Clinical Governance at a health service level.

### 7.2.9 A Specific Comment on Accreditation for Medical Administrators

All Australian Health Services are required to comply with an accreditation process. From January 1st 2013, the NSQHSS are mandatory across all Australian Health Services. These standards are designed to assist health services to deliver safe and high quality care through the

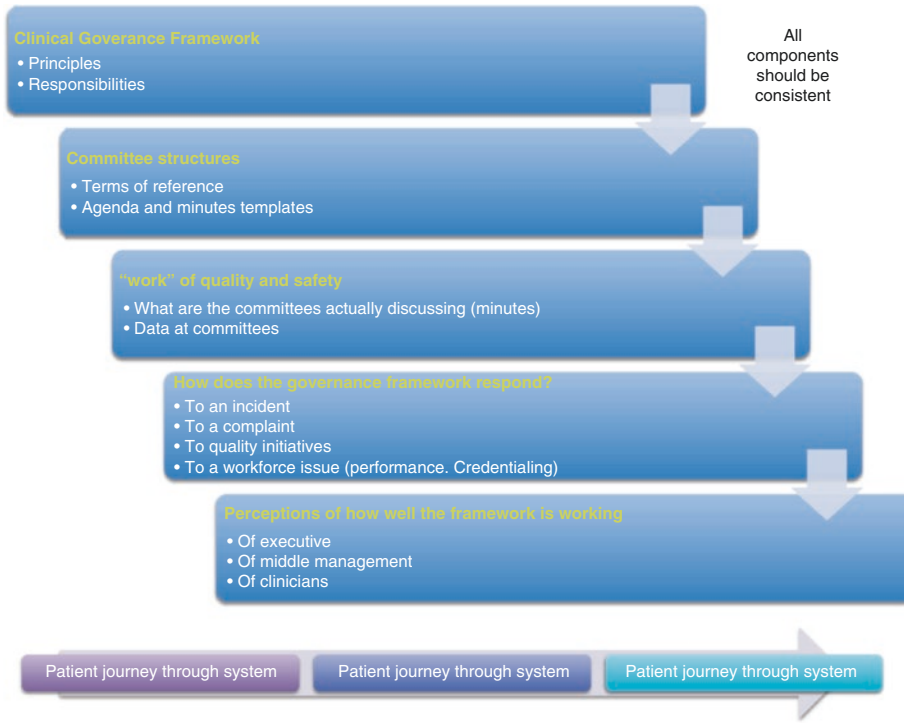


**Fig. 7.5** Considerations to ensure consistency throughout organisation's Clinical Governance

implementation of evidence-based improvement strategies in key areas:

1. Clinical Governance
2. Partnering with consumers
3. Preventing and controlling healthcare associated infections,
4. Medication safety
5. Comprehensive Care
6. Communicating for Safety
7. Blood management
8. Recognising and responding to a clinical deterioration in acute healthcare

In addition, most health services participate in a range of specialist accreditation programmes including Aged Care Standards, National Association of Testing Authorities Accreditation Review (NATA), Professional Medical College Accredited programmes (e.g. Royal Australasian College of Physicians for Physician Training) and the Department of Health/Commonwealth Health and Ageing programmes.

The new national standards are clinically based, and are relevant and tangible for clinicians on the front line. It is also:

- Risk-based approach: the organisation will need to be able to demonstrate that key services have been risk rated, any high risk identified, and management plans put in place.
- Compliance based: organisations need evidence to demonstrate compliance with policies and guidelines.
- Consumer Focussed: based on the concept that consumers are a partner in the planning and delivery of healthcare.

Overall there are 256 actions pertaining to the Standards which must be met to obtain accreditation, conducted by an independent accrediting body. If an organisation excels on an item then it can be Met with Merit. If any items are Not Met then the organisation will be given a high priority recommendation and provided with 120 days to rectify the concerns.

The state jurisdiction will then respond through a regulatory framework setting out their concerns. The hospital Board would also become actively involved.

If the organisation does not satisfactorily address the regulator's concerns it will no longer be able to continue as a training hospital for medical and nursing staff or able to bill Medicare Benefits Scheme in Australia. Many research projects are conditional on being undertaken in an accredited organisation.

Version 2 of NSQHSS is in development and due for release late 2017.

There are also Accreditation Standards in Australia for Mental Health National Standards, Community Standards, and Aged Care Standards. The detail of these is beyond the scope of this chapter.

## 7.3 Clinical Risk Management for Medical Administrators

Clinical Risk Management (CRM) is an approach to improving the quality and safe delivery of healthcare by placing special emphasis on identifying circumstances that put patients at risk of harm; and acting to prevent or control those risks. Clinical Risk Management should be part of a broader organisational risk management system, which integrates the management of organisational, financial, occupational health and safety, plant, equipment and patient safety risks. The organisation should have in place a systematic approach to minimising risk and improving the quality of clinical care. This should include compliance with relevant legislation, the reporting and investigation of incidents and risks and the implementation of strategies to reduce the occurrence of adverse events and improve patient safety.

The clinical risk management system at a health service should utilise a range of strategies to mitigate and manage risk and improve the quality of clinical care. These include:

### 7.3.1 Risk Register

A Risk Register is a comprehensive repository for the documentation of identified risks arising

out of the operations of the organisation. The primary purpose of a risk register is to act as a decision-making tool in managing risks. In this regard, it helps inform strategic planning processes and prioritisation of resources.

### 7.3.2 Policies and Procedures

Health Services should have a range of policies and procedures, which set out expectations in relation to staff behaviours/actions and specific clinical intervention. Policies should be developed through a rigorous Governance process and have a strong evidence base. Each policy should have an identified owner and a clearly defined review date.

### 7.3.3 Incident Management System

Any occurrence that is not consistent with the routine care of the patient or functioning of the health service is reported. This includes any event or circumstance that could have or did result in unintended harm, suffering, damage or loss to an individual, patient, or staff, the organisation, facilities or property. Victorian Health Services uses VHIMS, a web-based incident reporting system, which enables incidents to be entered online. Incidents are risk-rated and high-level incidents are then escalated to ensure appropriate notification and action to reduce the likelihood of reoccurrence.

The severity of the incident will guide the level of review. High-level incidents (ISR1 or 2), which result in patient harm, are reviewed through structured case review or Root Cause Analysis methodology to identify critical points, and root causes of the incident. Recommendations are developed to address the contributing factors.

Trends of incidents can also be monitored over time, including analysis of groups of incidents for patterns in patient cohorts, to assist with identifying risk reduction strategies to reduce the occurrence of incidents, or to reduce the level of harm from incidents. Appropriate sampling [27] of incidents can allow meaningful analysis of contributory factors to incidents, while ensuring high yield from quick, efficient, manageable analysis.

Medical staff reporting of incidents is historically low compared to other health professional groups in the literature. Studies have identified that doctors are reticent to embrace incident reporting systems, with United States and Australian experience of physicians reported only 1.9–2.9% [28, 29] and 5% [30] of incidents, respectively. Key barriers to reporting incidents by medical staff have been shown to be lack of feedback on outcomes and too long to complete incident reports [31].

Benn et al. [32] identified a number of key factors for successful feedback from incident reporting systems: the role of leadership, the credibility and content of information, effective dissemination channels, the capacity for rapid action and the need for feedback at all levels of the organisation. Pham et al. [33] also recommend several strategies to maximise the value of incident reporting systems, including:

1. Making reporting easier.
2. Making reporting meaningful to the reporter.
3. Make the measure of success system changes, rather than events reported.
4. Prioritise which events to report and investigate, do it well.
5. Convene with diverse stakeholders to enhance their value.

Throughout incident review, Medical Administrators should also be cognisant of the staff distress and concern that can arise from being involved with an incident resulting in patient harm. Most health professionals do not undertake their work to harm patients. Harrison, Lawton and Steward [34] survey of doctors' experience of adverse events identified a significant impact personally and professionally, with 76% of respondents believed this had affected them personally, with 74% reporting stress, 68% reporting anxiety, and 63% lower professional confidence.

Medical Administrators should ensure there are targeted strategies within their organisations

to ensure medical staff are aware of incident reporting systems, encouraged to report appropriate incidents, supported through the process, following best practice processes for respectful management of adverse events [35], and are provided timely feedback of the outcomes of reviews on patient care.

### 7.3.4 Sentinel Event Reporting

All Australian States are required to establish Sentinel Event Reporting system from health services to the local jurisdiction. The Joint Commission in the United States originally defined a sentinel event as a 'Patient Safety Event that reaches a patient and results in any of the following:

Death, permanent harm or severe temporary harm and intervention required to sustain life'. [36]

The term 'Sentinel' signals the need for immediate investigation and response [36]. An agreed list of eight national sentinel events from the Department of Health Australia [37] are:

1. Procedures involving the wrong patient or body part resulting in death or major permanent loss of function
2. Suicide of a patient in an inpatient unit
3. Retained instruments or other material after surgery requiring re-operation or further surgical procedure
4. Intravascular gas embolism resulting in death or neurological damage
5. Haemolytic blood transfusion reaction resulting from ABO incompatibility
6. Medication error leading to the death of a patient reasonably believed to be due to incorrect administration of drugs
7. Maternal death or serious morbidity associated with labour or delivery
8. Infant discharged to the wrong family

Each state health jurisdiction will have reporting guidelines, templates for health services to complete for any sentinel events reported.

### 7.3.5 Clinical Review Panels

Medical staff have an important role to play in promoting a culture of safety by championing incident reporting initiatives and participating in multi-disciplinary teams that analyse adverse events and promote change [38]. To facilitate this engagement, many larger health services have established clinical panels, alternately called Mortality and Incident Review Committees, with broad representation to review such incidents, and develop recommendations. The panels should usually review significant clinical events that

1. Undergo a root cause analysis investigation and or
2. Involve multiple units or departments

The role of the panel is to facilitate the identification of deficiencies in the system that contributed to the occurrence of these events in an open and transparent manner, and to develop recommendations for improvements in the systems of care. The panels should complement existing unit-level case review mechanisms.

### 7.3.6 Legislative Compliance

Most health services have a legislative compliance responsibilities register that clearly articulates executive and management responsibility for ensuring compliance with relevant health-related legislation to support risk reduction across the organisation. Tools to audit policy and practice on a regular basis to assess compliance and identify areas requiring remedial action should support the register. In addition, updates to legislation should be reviewed regularly to ensure appropriate amendments are made if required.

### 7.3.7 Medico-legal

Through the management of medico-legal cases, potential clinical risk issues, such as the occurrence of a clinical incident, may be identified. As appropriate, these should be referred by

medico-legal services to the Risk Management team for investigation and follow-up. Additionally, all inpatient deaths reported to the coroner and outpatient deaths where Coronial review of the organisation's provision of care is undertaken should be similarly referred. On completion of cases, all Coronial findings and, in the case of litigation any recommendations provided by the appointed legal team arising from the case, should be routinely distributed to Risk Management team, the Chief Medical Officer and relevant Clinical Units. Monitoring of the compliance with Coronial reporting is valuable to ensure appropriate cases by junior doctors are being referred for review [39].

### 7.3.8 Complaints or Concerns About Clinicians

Health services should ensure there are processes to raise concerns or complaints about clinician performance, which included a clear process for reporting concerns, appropriate investigation and response pathways and an avenue for anonymous reporting. Australian Health Practitioners Regulation Agency (AHPRA) also has mandatory reporting requirements for any clinicians undertaking notifiable conduct (see AHPRA intranet site for details of Mandatory reporting criteria).

### 7.3.9 External Reviews

Most health services engage external providers to conduct auditing of health service clinical and corporate governance frameworks. The importance of independent clinical reviewers on significant case reviews has been a key recommendation arising from the Review into Djerewarra Health Service [8].

## 7.4 The Medical Administrator as The Executive Oversight for Clinical Governance

Medical Administrators are in a unique role to significantly influence and improve patient care via overseeing clinical governance in the organisation [40]. In a survey of Directors of Medical Services in Victorian metropolitan health services, 12 of the 14 (85.7%) Medical Administrators were responsible for Clinical Governance as part of their role [41].

Medical Administrators on the Executive of Health Services (usually in Chief Medical Officer or Executive Director Medical Services roles) [41] advocate on behalf of the patient and for clinical governance on the Executive. By virtue of their position on the Executive team, Medical Administrators can ensure that all decisions, financial, strategic, operational, occupational health and safety, have consideration for the impacts on patient safety.

In her 2011 study of the association between physician leaders and hospital performance Goodall concluded that there is a strong positive association between the ranked quality of a hospital and whether the CEO is a physician or not ($P < 0.001$), reinforcing the importance of medical leadership in quality outcomes for patients [42].

It is however difficult to oversee all of the clinical governance elements by one individual. Appropriate delegation of roles and responsibilities across the clinical governance spectrum to other Executives and senior leaders within the organisation will assist with an integrated matrix of accountabilities for clinical governance. In practice, the following elements are usually delegated effectively to:

- Chief Nursing Officer: Falls Prevention, Pressure Injuries Prevention
- Executive Director Human Resources: Performance management, organisational development, education and training.

Medical Administrators in practice tend to hold onto the portfolios of:

- Credentialing and Scope of Practice, especially for medical staff, and sometimes other disciplines
- Infection Prevention
- Medication Safety
- Clinical Deterioration

It is the role of the medical administrator to ensure the framework, policies and procedures

are developed, implemented, monitored and evaluated. In addition, the Medical Administrator should ensure that they have enough knowledge depth of the subject matter to validate clinical assumptions presented by the clinicians, while providing a broader guidance on the organisational position, risks and drivers.

Medical Administrators also have a role to coach and mentor Heads of Units, Clinical Service Directors and medical leaders within their organisations in clinical governance structures. By the nature of the professional hierarchy [41], the Medical Administrator is trusted by the clinician, and can act as the translator between the clinicians and the executive to prevent any potential disconnect between management and clinicians within the clinical governance framework.

Monitoring of the frameworks can be challenging, as there is a need to balance the patient safety aspects with the operational and corporate imperatives. The Institute for Healthcare Improvement [43] outlines the principles of High-impact Leadership that can assist Medical Administrators to form the balance between corporate and clinical governance needs including:

1. High impact leadership requires the adoption of new mental models. That is how leaders think about challenges and solutions
   (a) Individuals and families are partners in their care
   (b) Compete on value, with continuous reduction in operating costs
   (c) Reorganise services to align with new payment systems
   (d) Everyone is an improver
2. High Impact Leadership Behaviours or what leaders do to make a difference
   (a) Person-centredness: Be consistently person-centred in word and deed
   (b) Front-line engagement: be a regular, authentic presence at the front line and a visible champion of improvement
   (c) Relentless focus: remain focused on the vision and strategy
   (d) Transparency: require transparency about results, progress, aims and defects
   (e) Encourage and practice systems thinking and collaboration across boundaries
3. High Impact Leadership Framework where leaders need to focus their efforts
   (a) Driven by persons and community
   (b) Create vision and build will
   (c) Develop capability
   (d) Deliver results
   (e) Shape culture
   (f) Engage across boundaries.

## 7.5 Areas of Clinical Governance with Relevance for Medical Staff

The following areas are particularly relevant for medical staff

- Credentialing and Scope of Practice—how to describe the clinical scope undertaken by our medical staff, how to document and formally recognise the qualifications and experience of our medical staff
- Peer review and clinical audit—how to monitor our patient outcomes within the scope of practice for the health service
- Performance management—how to ensure we have opportunities to optimise the ability to provide the best patient care

Table 7.1 outlines the NSQHSS elements particularly relevant for medical staff.

As Credentialing and Scope of Practice, and Performance management of medical staff is addressed in other chapters of this book, the detail is beyond the scope of this chapter. Of note however is the credentialing and scope of practice implications for introducing new technologies or clinical practice. In Victoria Health Services are expected to have established New Technologies and Clinical Practice Committees that oversee the introduction of any new technology in to the organisation. The proactive participation of senior medical staff at all stages of the introduction of new technologies is paramount, and can ensure safe, appropriate and effective patient care as a result. However, as illustrated by Dwyer et al. [44] doctors are not necessarily aware of the importance of their participation in these processes, and the organisation and such

**Table 7.1** NSQHSS elements relevant for Medical Staff

| Standard | Element |
|---|---|
| Governance | 1.10.1 A system is in place to define and regularly review the scope of practice for the clinical workforce |
| | 1.10.2 Mechanisms are in place to monitor that the clinical workforce are working within their agreed scope of practice |
| | 1.10.3 Organisational clinical service capability, planning, and scope of practice is directly linked to the clinical service roles of the organisation |
| | 1.10.4 The system for defining the scope of practice is used whenever a new clinical service, procedure or other technology is introduced |
| | 1.10.5 Supervision of the clinical workforce is provided whenever it is necessary for individuals to fulfil their designated role |
| | 1.11.1 A valid and reliable performance review process is in place for the Clinical workforce |
| | 1.11.2 The clinical workforce participates in regular performance reviews that support individual development and improvement |
| Standard 1 Governance | 1.3.1 Workforce are aware of their delegated safety and quality roles and responsibilities |
| | 1.3.3 Agency or locum workforce are aware of their designated roles and responsibilities |
| | 1.4.1 Orientation and ongoing training programmes provide the workforce with the skill and information needed to fulfil their safety and quality roles and responsibilities |
| | 1.4.2 Annual Mandatory training programmes to meet the requirements of these standards |
| | 1.4.3 Locum and agency workforce have the necessary information, training and orientation to the workplace to fulfil their safety and quality roles and responsibilities |
| | 1.7.1 Agreed and documented clinical guidelines and/or pathways are available to the clinical workforce |
| | 1.7.2 The use of agreed clinical guidelines by the clinical workforce is monitored |
| | 9.2.2 Deaths or cardiac arrests for a patient without an agreed treatment-limiting order (such as not for resuscitation or do not resuscitate) are reviewed to identify the use of the recognition and response systems, and any failures in these systems |
| Standard 2 Consumers | Principles of patient-centred care, how to engage patients in their management plans |
| Standard 3 Infections | Hand hygiene, aseptic technique, Antibiotic stewardship |
| Standard 4 Medication | Many elements, Adverse drug reactions, discharge summary medications |
| Standard 6 Clinical Communication | Three patient identifiers, correct patient matching, consent, Handover tools and processes, discharge summary completion |
| Standard 7 Blood | Documenting reasons for blood transfusion, follow-up post transfusion |
| Standard 8 Deterioration | Urgent review criteria, response, escalation processes |

committees need to be promoted to all medical staff.

This conclusion of this chapter will therefore focus on the elements of Peer Review and Clinical Audit/Mortality and morbidity review, Hospital Standardised Mortality Ratio, and Clinical Registries.

### 7.5.1 Clinical Audit

Clinical audit aims to improve patient care and outcomes and the effectiveness and efficiency of processes by evaluating the services provided and patient outcomes against previous and identified best practice. Clinical audit forms part of a

suite of tools within the clinical governance framework that ensure a systematic process to monitor clinical effectiveness and manage clinical risk.

Clinical units and specialties should undertake a range of audit activities as part of their quality improvement and review activities.

All clinical units and departments that undertake clinical activity should be required to have regular, structured clinical audit of patient outcomes. The clinical audit should:

- Be supported by available patient data.
- Provide opportunity for all staff within the unit or area to contribute.
- Provide opportunity for multi-disciplinary review of patient outcomes as appropriate.
- Provide an opportunity for all units or areas to contribute and report their clinical audit activity to their relevant Division or Specialty Quality Committee, within the organisation's Clinical Governance Framework.
- Contribute to external agencies for the relevant specialty, including clinical registries, Department of Health registries.

Maureen Bisognano, previous Chief Executive of Institute for Healthcare Improvement, has four questions she always asks when visiting a hospital:

1. Do you know how good you are?
2. Do you know where you stand relative to the best?
3. Do you know where the variation exists?
4. Do you know the rate of improvement over time? [45]

These four questions can be adapted quickly by clinical leaders to form the basis of clinical audit processes within their units.

Clinical Audit should be an integral part of any Quality Improvement project.

Clinical Audit should include areas of:

- Known areas of patient safety risks, in alignment with the NSQHSS
- Areas of risk for the organisation identified through incident reporting systems
- Areas of variation identified by Clinical Registries or external peer-reviewed reports.

In addition, a number of organisation-wide audits should be conducted regularly, with the results being reported through the clinical governance committee structure. The information from audit activity is used to identify areas where improvement is required to increase compliance with required standards.

### 7.5.2 Clinical Unit-Based Morbidity and Mortality

All clinical units and departments that undertake clinical activity should be required to have regular, structured clinical audit of patient outcomes.

This may include review of the following cases:

- Deaths
- Significant complications of care
- Serious adverse events and sentinel events
- Triaging clinical deterioration cases and reviewing a proportion to investigate causes.

This clinical audit may also include the following concepts:

- High volume or high risk procedures or conditions.
- Patient outcomes, for example, effectiveness of treatment.
- Appropriateness of treatment, e.g. in alignment with Choosing Wisely recommendations from Professional Colleges (e.g. Australian College of Emergency Medicine Choosing Wisely recommendations [46]).
- Conditions where the evidence is unclear and multiple treatment options are possible.
- New or emerging technologies within their patient groups.
- Right diagnosis [47], right treatment, and timeliness of treatment.

For specific specialties, the following may be relevant:

- Waiting list rates, day or surgery admission rates, unplanned returns to theatre rate for surgical of procedural units.
- Results of procedures in alignment with reporting requirements for the New Technologies and Clinical Practice Committees.
- Results of procedures and outcomes for areas with identified Extended Scope of Practice under the Credentialing and Scope of Practice Framework.
- Administrative data set indicators such as unplanned readmissions to hospital within 28 days, unplanned return to Intensive Care Unit rate, median length of stay, seclusion rates in mental health.
- Mental Health follow-up post discharge.

For morbidity review, units who participate in Clinical Registries should include morbidity data as part of their registry. Complications can also be analysed using hospital-acquired diagnoses from routine hospital data (CHADx), as outlined by Jackson et al. [48].

For Mortality reviews, all deaths should be classified according to a consistent classification system to facilitate those deaths requiring further review beyond unit level. The treating clinicians and peers within the Specialty should review all deaths, with external peer review for certain categories of deaths (such as Surgical Mortality via jurisdictional frameworks such as Victorian Audit of Surgical Mortality). Further organisational review will be required if there are any of the above issues identified. Levels of review of deaths provide robust and transparent review beyond the individual specialty, including external registries or external reviews if required (Fig. 7.6) [49].

Reporting of Medical Audit Activities should occur via Division or Specialty Quality Committee or relevant Division of Medicine or Division of Surgery relevant for the organisation.

All clinical units should provide an annual summary report of their audit activities to the management team outlining:

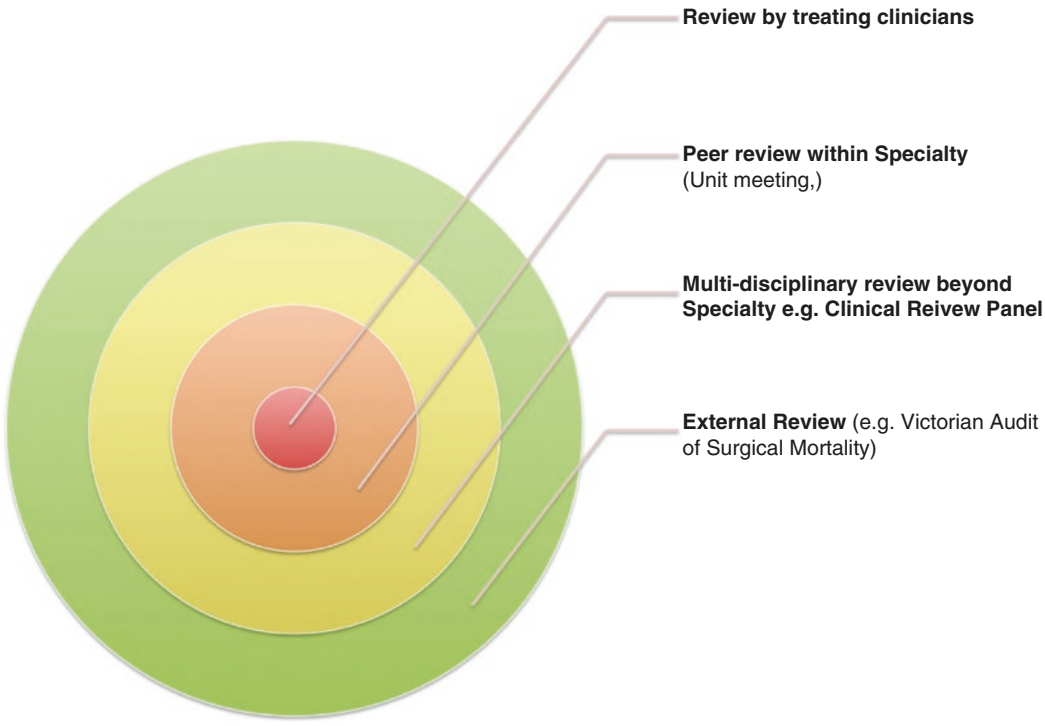


**Fig. 7.6** Levels of review of deaths relating to distance from clinical care of patient

- A description of the process for clinical audit within their unit
- Results of any Clinical Registry reports, including any areas of variation, and improvements in care as a result
- Patient outcomes including:
- Evidence of results of patient outcomes in the areas audited, including performance against benchmarked best practice
- Identification of areas of variation
- Improvements in care and learning opportunities as a result of the audit, including innovations in practice and improvement strategies

### 7.5.3 Hospital Standardised Mortality Ratio (HSMR)

Systematic review of patients' deaths has been identified as an effective tool for identifying systems issues to improve patient care. Historically, Surgical-Based Mortality and Morbidity committees discussed individual cases for education and learning, without necessarily focusing on the broader health service or systems issues that may have impacted care.

The emergence of accountable care has driven the need for governments, health departments and health funders to develop measures for comparing health service outcomes. The developments of Hospital Standardised Mortality Ratios (HSMR) have arisen out of the need for such measures. HSMR is defined as the ratio of the observed to expected deaths for a hospital, multiplied by 100, with expected deaths derived from statistical models that adjust for available case mix factors such as age and comorbidity [50].

Medical Administrators need to be familiar with the advantages and disadvantages of HSMR, how they are developed, what they mean and what are the implications for the patients within their health service. There are varying opinions on the value of HSMR; however, within various jurisdictions, these measures may be used to benchmark hospital performance. Mackenzie et al. [51] contends hospital-wide mortality is a relatively imprecise, crude measure of quality, but disaggregation into condition and service-line specific mortality can facilitate targeted improvements efforts. If tracked over time, both observed and expected mortality rates should be monitored to ensure that apparent improvement is not due to increasing expected mortality, which could reflect changes in case mix or coding. Risk adjusted mortality can be used as an initial signal that a hospital's mortality rate is significantly higher than statistically expected, prompting further inquiry [51].

The key point of contention is that HSMR data is based on administrative datasets that were primarily established to code patient's admissions for funding purposes, and not primarily established for measuring patient outcomes of care.

The role of the medical administrator is to determine:

- How will HSMR be used in my organisation's clinical governance framework?
- How do we exclude or remove data and coding artefact?
- At what point do we engage medical staff to review the data?
- How do we effectively determine whether there are clinical care issues?
- How does this relate to unit-level mortality and morbidity review?

Examples of coding artefact may include:

- Wrong diagnosis code allocated to the case.
- Missing, incorrect or lack of detail of the clinical case notes to adequately represent the severity of illness or complications arising, therefore coding personnel can only code what is documented.

### 7.5.4 Clinical Registries

The establishment of Clinical Registries has accelerated during the past decade. Registries provide a clinically credible means for monitoring and benchmarking healthcare processes and outcomes, identify areas for improvement, and drive strategies for improving patient care [52]. In addition, clinical registries are used to assess

changes in clinical practice, appropriateness of care and health outcomes over time [53]. The American Heart Association Policy Statement in April 2011 called for expanding the application for existing and future clinical registries, with well-designed clinical registry programmes providing important mechanisms to monitor patterns of care, evaluate healthcare effectiveness and safety, and improve clinical outcomes [54].

Clinical registries are databases that systematically collect health-related information on individuals who are:

- Treated with a particular surgical procedure, device or drug, for example, joint replacement
- Diagnosed with a particular illness, for example, stroke; or
- Managed via a specific healthcare resource, for example, being treated in an intensive care unit

Clinical Registries usually encompass patients treated by a single medical specialty group, for example, the Melbourne Interventional Cardiology Group involves patients treated by credentialed Cardiologists only, and hence collation of information for the registry is direct from the treating clinicians to the Registry.

Information in clinical registries is captured on an ongoing basis from a defined population. Clinical registries provide the most suitable and accurate method of providing monitoring and benchmark data and provide the greatest potential to improve healthcare performance across institutions and providers [55]. The focus of clinical registries is to capture data that reflects real-world clinical practice in large patient populations [56]. The data from clinical registries do not replace the need for traditional randomised controlled trials, rather registries and trials are complementary approaches [56].

Clinical Registries have high participation rates from clinicians, as outlined by Retegan and colleagues of the Victorian Audit of Surgical Mortality (VASM) with a survey of 257 individual stakeholders demonstrating a 95% agreed participation rate amongst Victorian Fellows of the Royal Australasian College of Surgeons [57]. The analysis of VASM reported cases has also lead to further understanding of cross-specialty differences with clinical management issues [58]. High participation rates were also identified in the Australian and New Zealand Intensive Care Society Centre for Outcomes and Resource Evaluation Registries, with 197 adult ICUs (75%) of Australian ICUs contributing to the registry [59].

It is expected that units who contribute to an external peer-reviewed Clinical Registry will:

- Review the results in a timely manner
- Identify and analyse any variations for clinical relevance and impact
- Integrate improvements in care or learning opportunities into the unit's quality improvement process
- Report and feedback to relevant Quality Committee for the organisation of the results, variations and actions required annually.

A study of Clinical Registry use in a major tertiary teaching hospital identified a very high level of medical staff participation, but a lack of systematic reporting of registry data into quality committees beyond unit level, and utilisation of such data to reflect up on practice and drive quality improvement [60].

### 7.5.5 Other National Standards that Benefit from Medical Staff Involvement

Although there is clearly a strong role for nursing leadership for successful implementation of the NSQHSS [61], there are a number of NSQHSS that benefit from specific medical staff involvement:

1. Clinical Guidelines and pathways
   (a) Ensure medical staff provide leadership for the development of evidence-based guidelines and pathways relevant for the organisation

   (b) Ensure medical staff provide oversight of regular review and update of the guidelines and pathways
   (c) Ensure medical staff participate in auditing compliance against the guidelines at the front line
2. Infection Prevention
   (a) Particularly lead by Infectious Diseases consultants across the full suite of areas
3. Medication Safety
   (a) Particularly lead by Clinical Pharmacology and Physicians across the full suite of areas
4. Blood Transfusion
   (a) Particularly lead by Haematology across the full suite of areas
5. Clinical Deterioration
   (a) Requires a broad representation of medical staff across the organisation, particularly from Emergency Department, Intensive Care Unit, medical physicians on the ward, surgeons on the ward and in theatre, subacute and community physicians
   (b) Require senior leadership for policy development and development of strategies, requires junior medical staff involvement to explore and clarify the front-line medical staff issues for managing deteriorating patients, particularly those at end-of-life
6. Falls prevention
   (a) Reduction of number of falls—how to rationalise medications that can contribute to falls, early identification and management of delirium as a risk factor for falls,
   (b) Reduction of the harm caused by falls—appropriate anticoagulation, minimise duration and dosing for the clinical scenario, identification and management of osteoporosis
7. Pressure Injuries
   (a) Optimise skin integrity and nutrition, with early identification and management of conditions leading to poor skin integrity such as diabetes and vascular disease
   (b) Pressure care intra-operatively or during procedures
8. Clinical Handover
   (a) Structures and processes for shift to shift junior doctor handover
   (b) Structures and processes for medical handover at transitions throughout the patient journey from emergency department to ward, ICU to ward, acute to subacute services, on discharge to community.

## 7.6 Medical Engagement in Clinical Governance

Twigg et al. have highlighted the importance of nursing leadership for successful quality and safety; however, Medical Staff engagement in patient safety is essential for high quality patient's outcomes. The Institute for Healthcare Improvement [35] outlines the principles for engaging medical staff in the quality agenda.

The degree in which you involve doctors in quality initiatives involves striking a balance between ensuring there is the right amount of engagement and medical input while being cognisant that clinicians are very busy. It is critical to determine what is required from medical staff, and best to arrange time with the right medical staff.

There are excellent examples in the literature on how to best engage doctors in quality and safety. The following are some reflections from practice:

### 7.6.1 Senior Medical Staff

- Senior medical staff are required for leadership of quality projects, advice and guidance on policy or guideline development, advice on strategic priorities for the organisation or linkages with community partners, such as research institutes. Collaboration across units for certain patient cohorts also required Heads of Units or senior medical leadership.
- Senior medical staff are also essential for any outpatient processes, as the predominance of outpatient clinics are delivered by senior

doctors. Any quality improvement initiatives involving theatre, surgical procedures operations also require Surgical or Anaesthetic senior medical staff involvement
- Introduction of any new electronic clinical information technology systems requires both senior and junior medical staff, for varying views on the practicalities of the system, and how this will affect the workflows of patient care

### 7.6.2 Junior Medical Staff

- The approach to engaging junior medical staff needs to be tailored differently than that of senior medical staff because of their differing understandings and confidence regarding patient safety. However, engaging with the junior staff is essential for understanding the practicalities of day-to-day patient care.

### 7.6.3 Committee Involvement

Medical Administrators should strongly consider including some representation of the Senior Medical Staff on the Board Quality and Safety Committee. Veronesi et al. in 2013 in their study of NHS hospital trusts performance measures from the Healthcare Commission [62] and Dr. Foster, and comparing the proportion of physicians on hospital Boards, there was a significant and positive association between a higher percentage of clinicians on boards and the quality ratings of service providers, with lower morbidity rates.

From practical experience, the following observations have assisted with successful relationships with medical staff:

- Medical staff do not respond well to being told to comply with regulations without explanation of the reasons, as they value autonomy and independence.
- Checklists are challenging for medical staff, as they are aware that although a majority of patients follow routine care, often there are exceptions based on patient needs or clinical conditions, and require treatment regimes to be adapted for the individual's needs
- Even if the medical staff must comply with something from a patient safety perspective, they respond better if they are able to be provided with an opportunity to provide advice on how they will comply
- If the medical staff do not agree with action that will be implemented, they appreciate knowing that the change will be evaluated robustly, and their views are recorded and used as part of the evaluation
- Meet the medical staff on their terms, in their office. They are the experts with years of experience in their field, and treat them with the respect that their experience deserves
- Avoid asking doctors to criticise or comment on areas beyond their scope
- As most clinicians have full schedules throughout the day, meetings often have to be scheduled before hours, after hours, or at lunchtimes. If you are inviting medical staff at lunchtime, consider feeding them, as you will more likely engender higher levels of support and engagement
- Consider multiple avenues for seeking feedback. Examples include:
  - One-on-one interviews for guided leadership advice from particular specialties, such as Head of Infectious Diseases for Antibiotic Stewardship strategies, or Head of General Surgery to define extended scope of practice and credentialing requirements for General Surgery
  - Workshops on specific quality issues with a variety of different clinicians seeking multi-disciplinary advice or endorsement
  - Trial or simulation environments when introducing a new change that may impact practice, for example, the introduction of an electronic medication prescribing platform
  - Organisation-wide electronic surveys for views on topics such as patient safety climate survey, junior medical staff feedback on rostering and safe hours

## 7.7 The Inter-Relationship of Clinical Service, Scope of Practice and Patient Outcomes

As highlighted earlier, medical staff often appreciate an explanation of the drivers for certain quality improvement initiatives, and how the concepts relate in the global view. Credentialing and scope of practice frameworks require evaluation and monitoring of compliance. Clinical audit is a mechanism to undertake this monitoring.

Figure 7.7 outlines a conceptual diagram of the relationship between clinical service requirements, medical staff scope of practice, credentialing and clinical audit. The figure should be read in conjunction with details from other chapters.

The steps required to determine what the medical workforce profile should be within an organisation are:

- *Step 1: Clinical Service requirements*
- Determine the emergency patient mix such as the types of patients, demographics, patient conditions, specialties required.
- *Step 2: Scope of Practice*
- Define what scope of the various clinical services are required to appropriately treat the emergency patients mix. If the health service is in a young community population with families and children, the health service will require a higher proportion of paediatric specialists.
- *Step 3: Credentials*
- Determine the type, seniority, and number of doctors that are needed to deliver the scope of clinical practice, and clinical service requirements. This will then define the credentials such as qualifications, fellowship specialties and seniority experience level of the medical staff.
- *Step 4: Senior and Junior Medical Workforce profile*
- Employ the number, proportion and mix of senior medical staff to match your scope of practice noting that workforce availability will affect recruitment.
- *Step 5: Junior Medical Workforce profile*
- Employ the junior medical staff that match the senior medical staff to ensure appropriate levels of training and supervision. Noting that workforce availability will affect recruitment.

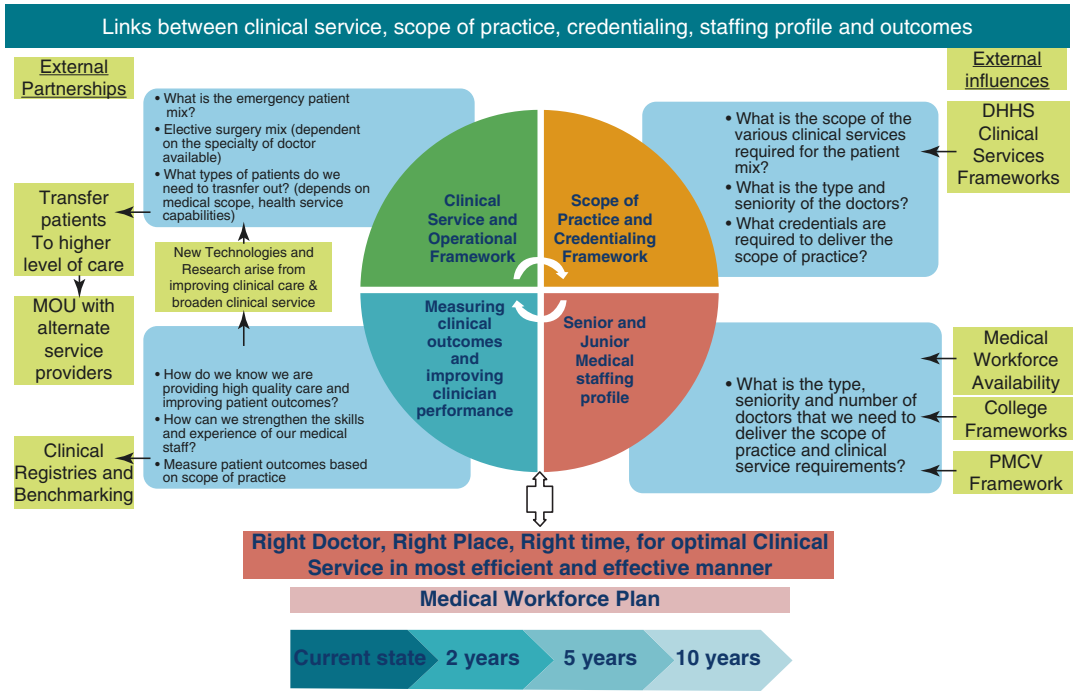


**Fig. 7.7** Links between clinical service, scope of practice, credentialing, staffing profile and patient outcomes

- *Step 6: Clinical Audit*
- How do we know we are providing high quality patient care? Via clinical audit mechanisms outlined previously, and ensuring that the patient care provided by individual clinicians complies with their scope of practice.
- *Step 7: Performance development*
- How can we strengthen the skills and experience of our medical staff? Via education and training, performance management and development programmes.
- *Step 8: Delineation of scope of clinical service*
- Are there any restrictions to our clinical service based on our availability of medical staff or delineation of the size and scope of our service, e.g. elective surgery patient mix depends on the specialty of the senior medical staff available within the health service. What types of patients do we need to transfer to other health services?

### 7.7.1 Links Between Evidence-Based Measurement and Quality Improvement

Evidence-based medicine has become a cornerstone of good clinical practice and drives the principles of research, teaching and clinical practice. However, there is often a considerable gap between what we know from research and what is done in clinical practice. Glasziou et al. [63] proposes that there is benefits for the patient by integrating the complementary disciplines of Evidence-Based Medicine (EBM) or doing the right things, and Clinical Quality Improvement (CQI) or doing things right, Glasziou and colleagues propose a clear connection between EBM and CQI, in the form of:

- Those working in CQI teams should routinely check the validity, applicability and value of the proposed change before taking on a change.
- Those working in EBM should recognise that it is not sufficient to simply appraise the evidence but ask what can be done to address the gap between the evidence and practice.
- In addition to formal evaluation recognising the complementary value of experiential learning in a cyclical process by exploring concepts and models, learning from them, and then doing it again better.
- Those teaching the next generation of clinicians should value both disciplines, which should be taught, integrated and modelled in clinical training.

Of note, the governance processes for introducing established technologies or clinical practice into the organisation are at the boundary of EBM and CQI, and use both elements and concepts for improving patient care.

## 7.8 Ready Reckoner

- Clinical Governance at a health service level requires structures, processes and frameworks that articulate the key roles, responsibilities and accountabilities at all staff levels from Board, management and clinicians, enabled by robust data, culture, education and training and a continuous learning environment.
- Successful clinical governance encompasses the domains of clinical effectiveness, risk management, patient safety and consumer engagement, and should address the priority areas and accreditation requirements of any national regulatory bodies.
- Successful clinical governance requires strong authentic medical engagement, at a leadership, senior and junior medical staff level, that allows the advice, guidance and leadership from medical staff across a suite of patient safety areas, while utilising their time in an efficient and effective manner.
- The Medical Administrator role is an essential element within the clinical governance system as the patient safety advocate on the Executive. The Medical Administrator also provides an interface to translate management concepts to medical staff, and medical concepts to the broader management.
- This chapter outlines the literature and practical examples of implementing Clinical Governance within a health service, and particularly focuses on the strategies to effectively engage medical staff, and addresses the essential role of the Medical administrator within the clinical governance system.

**Acknowledgments** I would like to acknowledge the previous Director Quality Safety and Risk Management, Ms. Filomena Ciavarella, for the collaborative leadership of the Clinical Governance Framework at Austin Health.

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# Private Health and Insurance

8

David Rankin

**Learning Objectives**
Readers of this chapter will gain an understanding of:

- The characteristics and composition of private hospitals in Australia
- Medical staff engagement and credentialing in private hospitals
- Differences between the operation of private and public hospitals
- The private health insurance market in Australia
- The regulations governing the operation of private health insurance
- What is required to be a complying health insurance product
- The types of private health insurance offered
- The funding arrangements between private health insurers and health service providers
- The challenges facing private health insurers

## 8.1 Introduction

For the medical leader in Australia, the private health sector and the private health insurance industry pose a range of complex challenges. Determining what services are covered by a particular patient's insurance product can be a challenge. Gaining assurance that the insurer will pay the account is seldom an intuitive or simple process.Clinical governance in private hospitals relies on by-laws rather than employment contracts.

This chapter attempts to outline the state of the private hospital sector and document the operation of the private health insurance industry.

Australia has a thriving private health sector. Private hospital separations are growing at a significantly higher rate (2.5% per year) compared to the public sector (1.8% per year).

There is a close and synergistic relationship between private hospitals and private health insurance. In 2012–2013, private hospital revenue exceeded $10 billion, with $8.2 billion of that coming from private health insurance.

The Federal Government has determined that it is advantageous to encourage Australians to take out private health insurance and so offers a range of mechanisms to encourage early and continuous uptake.

Public hospitals are able to admit private patients and receive reimbursement from the patient's private health insurance fund.

While most private hospitals bill the patient episode on the basis of the admitting diagnosis-related group (DRG), the medical specialists' base their account on the Medicare Benefits Schedule (MBS) procedure codes. This can lead to significant confusion for the patient and the

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E. Loh et al. (eds.), *Textbook of Medical Administration and Leadership*,
https://doi.org/10.1007/978-981-10-5454-9_8

health fund, particularly when the hospital and specialist accounts arrive weeks apart and indicate quite different procedures.

Medical staff admit their own patients to the private hospital and are largely responsible for determining the care their patients receive.

There is an inevitable tension between the private hospital seeking to maximise their revenue and the health fund attempting to minimise the volume and cost of the claims they pay out. Yet they have a common goal—maximising the number of people, or in the case of private hospitals, prospective patients, who take out private health insurance. This can best be achieved through lower premiums making private health care affordable to a larger number of people.

## 8.2 Private Hospitals in Australia

### 8.2.1 Characteristics

There were 630 licensed private hospitals in Australia in 2016. Of these, 258 were overnight hospitals with 27,875 beds. They account for a third of all acute and psychiatric hospital beds in this country.

Private hospitals market themselves as offering:

- Easy and timely access to health interventions
- Care provided by the specialist of your choice
- Advanced medical, surgical and diagnostic technology
- A higher level of privacy and comfort
- More appetising meals and catering
- More convenient visiting arrangements
- A level of quality and patient experience not matched by the public sector

The majority (80%) of private hospitals were located in the major cities.

Private hospitals offer a range of specialised facilities (Tables 8.1, 8.2, and 8.3).

The 209 surgical hospitals operate 1240 theatres—an average of just under 6 operating rooms per hospital. On average, each week these operating theatres are booked for 8.2 sessions and undertake 34 cases.

The 26 private emergency departments see a combined total of 538,000 patients each year (See later for a discussion on the funding of private emergency departments).

The 127 day surgical hospitals operate 325 theatres and 260 procedure rooms.

There are 31 private acute psych facilities and 22 private rehabilitation hospitals.

**Table 8.1** Private hospitals offer a range of specialised facilities

| Number of Hospitals | Specialised Facility |
|---|---|
| 209 | Operating theatres |
| 72 | Labour wards |
| 102 | ICU, CCU or combined units |
| 52 | High Dependency Units |
| 28 | Cardiac Surgery Unit |
| 26 | Emergency Departments |

From Australian Bureau of Statistics 4390.0 Private Acute and Psychiatric Hospitals, Australia 2015–2016

**Table 8.2** Nature of the private acute and psychiatric hospitals

| Hospital Type | Total | Average Separations | Average length of stay |
|---|---|---|---|
| Private acute group A hospitals (>100 beds, ICU and ED) | 22 | 32,275 | 2.9 |
| Private acute group B hospitals (>100 beds, ICU) | 36 | 21,398 | 2.7 |
| Private acute group C hospitals (>100 beds) | 49 | 12,021 | 2.3 |
| Private acute group D hospitals | 69 | 5036 | 2.9 |
| Private acute psychiatric hospitals | 29 | 5438 | 4.9 |
| Other acute specialised hospitals | 15 | 3366 | 1.7 |
| Private rehabilitation hospitals | 23 | 4785 | 6.3 |
| Mixed sub- and non-acute hospitals | 5 | 396 | 18.4 |

From Australian Institute of Health and Welfare. Australian hospital peer groups Ca no HSE 170. © Australian Institute of Health and Welfare 2015

**Table 8.3** Nature of the private day surgery hospitals or day procedure units

| Hospital Type | Total | Average Separations |
|---|---|---|
| Endoscopy centres | 51 | 2973 |
| Eye surgery centres | 42 | 2375 |
| Mixed day procedure hospitals | 53 | 3862 |
| Plastic and reconstructive surgery centres | 26 | 1510 |
| Dialysis clinics | 14 | 7067 |
| Oral and maxillofacial surgery centres | 11 | 986 |
| Haematology and oncology clinics | 10 | 7335 |
| Fertility clinics | 8 | 2989 |
| Reproductive health centres | 9 | n/a |
| Hyperbaric health centres | 4 | n/a |
| Sleep centres | 3 | 750 |

From Australian Institute of Health and Welfare. Australian hospital peer groups Ca no HSE 170. © Australian Institute of Health and Welfare 2015

Each State is responsible for licensing the private hospitals that are located in their region. The licensing process and requirements vary from State to State. South Australia takes a minimalist approach with day hospitals not being required to hold a license and no routine data submission requirements. Each State lists the various types of services that private hospitals can provide. Again, this list varies from 3 types of service in Tasmania to 42 in Queensland [1].

### 8.2.2 Ownership Structures

Private hospitals fall into four main ownership types—for-profit group, for-profit independent, religious and charitable and other not-for-profit. Private overnight hospitals are primarily consolidated into five major hospital groups. These five groups now account for over 60% of all private beds.

The largest group is Ramsay Health Care with 69 hospitals and day surgery units, admitting almost a million patients and providing over half a million procedures a year (Table 8.4). Healthscope, the second largest group, has 44 hospitals, 31 of which are acute hospitals. Both groups are publicly listed and have significant expansion plans to both redevelop and expand existing sites or build new hospitals. Ramsay also operates five public facilities including Joondalup in Perth, Mildura Base Hospital, Noosa Hospital and Peel Health Campus.

**Table 8.4** The larger hospital groups

| Group | Hospitals | Beds |
|---|---|---|
| Ramsay Health Care | 69 | 7452 |
| Healthscope | 43 | 4733 |
| Health Care Australia | 16 | 1526 |
| St John of God Healthcare Inc. | 14 | 2228 |
| Calvary (Little Company of Mary) | 10 | 1246 |
| St Vincent's Health Australia | 8 | 1459 |
| Epworth Foundation | 7 | 1226 |
| Uniting Health Care | 5 | 1034 |
| Cabrini Health | 4 | 742 |
| Adventist Healthcare | 3 [2] | 413 |

These data are from Medibank statistics

Private overnight hospitals owned by the for-profit groups tend to be medium-to-large in size, with two-thirds having over 100 beds and some 34% having between 51 and 100 beds. Hospitals owned by religious or charitable organisations tend to be smaller with only 42% having more than 100 beds.

Many of the smaller day hospitals are owned by surgeons or surgeon groups.

### 8.2.3 Funding and Operating Margin

Over the past 5 years, private hospital separations have increased by 4.2% per year, while public hospital separations have grown at 3.1% per year.

Just over 84% of patients admitted to private acute and psychiatric overnight hospitals were covered by private hospital insurance. This compares with only 65% of those admitted to day hospitals.

The net operating margin for acute and psychiatric hospitals during 2012–2013 was 9.2%, down from 9.7% in 2011–2012. The net operating margin for Day hospital facilities in the same period was 18.7% [2] (Tables 8.5 and 8.6).

**Table 8.5** Private Hospital Revenue ($'000)

| | | For-Profit | Religious and Charitable | Other | Total |
|---|---|---|---|---|---|
| Patient Income | Income from Federal, state and local government | N/A | 467,725 | N/A | 1,600,765 |
| | Income from private health insurance | 5,510,099 | 4,078,625 | 817,129 | 10,405,853 |
| | Income from third parties (Workcover, motor vehicle and workers compensation) | N/A | 71,422 | N/A | 252,178 |
| | Income direct from patient | 178,523 | 226,503 | 71,656 | 476,691 |
| | Total Patient Income | 6,934,979 | 4,945,020 | 1,001,198 | 12,881,197 |
| Recoveries and Other Income (investments, charities, etc.) | | 203,976 | 359,198 | 92,291 | 655,465 |
| Total Income | | 7,138,955 | 5,304,218 | 1,093,489 | 13,536,662 |
| Patient income as a proportion of total income | | 97.1% | 93.2% | 91.6% | 95.2% |

From Australian Bureau of Statistics 4390.0 Private Acute and Psychiatric Hospitals, Australia 2015–2016, Released 20 June 2017

**Table 8.6** Distribution of private hospitals

| | Metro | Rural |
|---|---|---|
| Hospitals | 231 | 58 |
| Beds | 26,364 | 3558 |
| Average Beds | 114 | 61 |
| Separations | 4,171,000 | 535,000 |
| Average Length of Stay | 2.3 | 2.1 |

From Australian Bureau of Statistics 4390.0 Private Acute and Psychiatric Hospitals, Australia 2015–2016, Released 30 June 2017

In contrast to public hospitals, private hospitals tend to attract a higher proportion of patients from major cities rather than those from regional or remote areas (Fig. 8.1). Similarly, people from higher socio-economic areas are more likely to be admitted to private hospitals than those from the lower socio-economic areas (Fig. 8.2).

### 8.2.4 Services Offered

While private hospitals accounted for 51% of all hospital admissions, the proportion of work undertaken in the private sector varies considerably by specialty (Table 8.7).

Private hospitals perform [nearly] over 80% of all dental admissions and 72% of admitted eye procedures. In contrast, only 25% of [radiotherapy], respiratory [and urinary] admissions occur in the private sector. [Slightly f] Fewer than [30] 25% of obstetric patients are admitted to the private sector.

### 8.2.5 Medical Staffing and Clinical Governance

The majority of consultant specialists working in the private sector are non-salaried, visiting medical staff. Their engagement is as independent contractors who are bound by the hospital by-laws. The hospital Medical Advisory Committee is usually responsible for providing advice to the board of management on credentialing and setting clinical standards. The medical executive or general manager usually has final responsibility for granting admitting rights and determining appropriate action for misconduct or inappropriate clinical practice.

Most hospitals give sovereignty to the individual specialist's clinical opinion, however there is an increasing expectation that the various subspecialty groups will monitor the clinical practice of their colleagues and have a designated senior clinician who is accountable for the clinical engagement of the group members and presents the needs of the group to management.

The engagement of a medical executive such as Chief Medical Officer by private hospitals is variable. Many of the larger not-for-profit hospital groups employ a medical officer, at the group

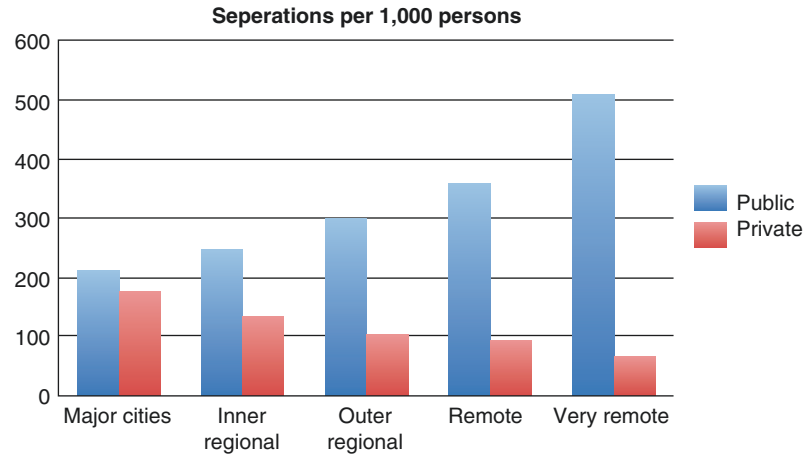


**Fig. 8.1** Separations by area of usual residence


**Fig. 8.2** Separations by socio-economic status

and/or individual hospital level. These medical officers have oversight of the credentialing and engagement of medical specialists and usually for overall clinical quality.

Private hospitals have been very reticent to share performance or outcome data with the public. While most private hospitals contribute their hand hygiene and SAB rates to the national "My Hospital" web site, this data is not peer matched and so it is very difficult to determine comparative performance. Some private hospitals engage in peer comparison work through the Health Roundtable or inter-group comparisons; however, this information is not available to the public. Private health insurers are increasingly holding both the hospitals and the specialists who work there to account for the appropriateness and outcomes of the clinical interventions that they undertake.

### 8.2.6 Billing and Payment of Private Hospitals

Most health funds have adopted a DRG-based funding framework, though at least one fund continues to pay hospitals on a per diem basis. Mental health and rehabilitation beds are usually funded on a per diem basis. For day procedures a nationally agreed "Banding" structure is maintained.

In most cases the prosthesis is billed separately from the hospital accommodation costs. Prosthesis are paid at the rate set out in the pros-

**Table 8.7** Separations and Patient Days by Top SRGs—2015–2016

| | Private | | Public | | % Private | |
|---|---|---|---|---|---|---|
| SRG | Separations | Patient Days | Separations | Patient Days | Separations | Patient Days |
| Dentistry | 100,672 | 100,933 | 23,683 | 25,289 | 81% | 80% |
| Diagnostic gastrointestinal | 462,154 | 492,974 | 178,360 | 263,303 | 72% | 65% |
| Ophthalmology | 294,060 | 297,895 | 116,726 | 141,728 | 72% | 68% |
| Rehabilitation | 332,343 | 1,327,921 | 136,299 | 1,970,558 | 71% | 40% |
| Plastic and reconstructive surgery | 165,721 | 234,616 | 103,148 | 223,736 | 62% | 51% |
| Chemotherapy | 288,734 | 289,133 | 199,873 | 199,874 | 59% | 59% |
| Gynaecology | 231,525 | 305,178 | 163,114 | 245,771 | 59% | 55% |
| Ear, nose and throat | 127,979 | 142,728 | 98,977 | 149,302 | 56% | 49% |
| Interventional cardiology | 83,800 | 154,427 | 78,389 | 251,148 | 52% | 38% |
| Mental Health—acute | 153,084 | 770,437 | 154,061 | 1,879,326 | 50% | 29% |
| Orthopaedics | 367,482 | 951,582 | 383,720 | 1,288,763 | 49% | 42% |
| Urology | 191,918 | 308,805 | 218,916 | 400,597 | 47% | 44% |
| Gastroenterology | 236,092 | 383,493 | 323,572 | 786,263 | 42% | 33% |
| Haematology | 81,391 | 167,865 | 152,747 | 432,702 | 35% | 28% |
| General surgery | 128,086 | 281,202 | 303,838 | 739,291 | 30% | 28% |
| Respiratory medicine | 106,012 | 372,148 | 338,728 | 1,261,171 | 24% | 23% |
| Obstetrics | 95,573 | 388,159 | 345,451 | 860,828 | 22% | 31% |
| Renal Dialysis | 252,861 | 252,866 | 1,141,520 | 1,141,751 | 18% | 18% |
| General medicine | 104,888 | 400,139 | 494,843 | 1,665,760 | 17% | 19% |
| Neurology | 49,181 | 172,783 | 248,620 | 726,892 | 17% | 19% |
| Cardiology | 61,664 | 239,673 | 335,412 | 816,527 | 16% | 23% |
| **Total** | **4,374,034** | **9,662,047** | **6,448,124** | **20,184,343** | **40%** | **32%** |

From Hospital Resources 2015–2016: Australian hospital statistics pg 81 AIHW Cat no. HSE 190

thesis list which is maintained by the Department of Health. The list price is independent of the price the prosthesis supplier may agree with the private hospital and is often substantially higher than the price charged to public hospitals.

Consultant Specialists raise separate invoices to the hospital, so although they will admit the patient, the patient will likely receive an account from each of the hospital, attending doctor, assistant, anaesthetist, laboratory, radiology and allied health providers.

Most health funds preclude the hospital from charging the member a co-payment, though some arrangements include hospitals having the ability to charge a set maximum daily rate.

Hospitals that do not have contracts with a health insurer are able to bill the insurer at the Second Tier rate which is set at 85% of the average contracted rate for hospitals in that State.

Where the hospital does have a contract, but a particular service is not included in the contract, the hospital can bill the insurer at the Default rate which is set by the Commonwealth each year. The default rate is set at about a quarter to a third of the normal contracted bed rate. Table 8.8 compares public and private hospitals.

## 8.2.7 Challenges Faced by Private Hospitals

### 8.2.7.1 Value Proposition

Private hospitals have traditionally distinguished themselves from public hospitals on the basis of:

- Medical Specialist of Choice
- Superior Accommodation
- No waiting lists

With the increasing promotion of public hospital research capability, the significant recent public hospital capital building programme and the political focus on waiting times, the value proposition for [public] private hospitals has diminished.

**Table 8.8** Comparing Public and Private Hospitals

| | Public | Private |
|---|---|---|
| Focus | Meeting State and Federal targets | Attracting surgeons and patients<br>Maximising revenue |
| Financial Expectations | Financial break even | Return on investment (for-profit). |
| Targets | Set by government (State/Federal) | Internal. Set by the Board or Shareholders |
| Constraints | Volume avoidance (Demand exceeds capacity)<br>Acute/Emergency admissions have priority.<br>Elective surgery as capacity allows | Economic deployment of staff<br>Access to capital for expansion |
| Health Insurance Focus | Secondary funding source (often less than 5% of income) | Primary funding source |
| Patient "Ownership" | Hospital as "owner" of the patient | Surgeon admits their patient and retains ownership |
| Admission process | Hospital determines day and time of admission, time of surgery and composition of theatre list | Surgeon determines day of admission and composition of theatre list |
| Care coordination | Team-based approach to patient care. | Admitting surgeon has responsibility for coordinating patient care. Others engaged at surgeon's discretion. |
| Medical staff engagement | Salaried (superannuation, CME, private practice allowance, malpractice insurance)<br>Funded to attend quality, education and "non-clinical" activities.<br>Many full timers (particularly medicine) | Independent contractors.<br>No funding for "non-clinical" activities.<br>Insurance is personal responsibility<br>Many will have very limited sessions |
| Hours of operation | 24/7 operation | M-F, 8 – 5. High labour cost outside working hours. Limited access to specialists after hours. |
| Occupancy | Tends to be constant throughout the week.<br>Occupancy is driven by ED attendance. | Tends to peak mid week and be low over the weekend and public holidays. |
| Capacity mitigation | Ramping, bypass, admission delay, cancelled elective lists, early discharge, HITH | Expansion, limits on surgeon numbers |
| Clinical Governance | Well established formal governance processes<br>Scopes of practice<br>Formalised committees<br>Peer review<br>Mortality and Major Morbidity review<br>Clinical Incident review<br>Salaried clinicians engaged in clinical governance | Medical Advisory Committee<br>Clinician involvement and engagement in clinical governance is variable.<br>Surgeon largely determines own scope of practice. |
| Service mandate | Accept all cases | Ability to select high revenue or high margin procedures |
| Case mix | Medical dominance (frail elderly and children).<br>High degree of sub-specialisation.<br>Tend to develop super-specialties (State/National centre of excellence). | Elective surgery dominance.<br>Limited sub-specialisation.<br>Little super-specialisation |
| Research | Focused investment in research. Tied to teaching and training. Alignment with medical schools. | Research as a separate initiative<br>Limited to major hospitals with a university alignment |
| Teaching | Integral to service provision. Junior staff support 24/7 operation. | Patchy. Junior staff may be seen as interfering in specialist—patient relationship. |
| Facility Efficiency | Maximised for catastrophic event and high risk patients | Maximised for throughput and patient experience |
| Capital access | Allocation by State. Election sensitive.<br>Retrospective—to address capacity crisis. | Proactive investment.<br>Funded from reserves or loans. |
| Funding | WIES based. Fixed annual allocation. | Activity based. No revenue limits. |

#### 8.2.7.2 Clinical Governance

Private hospitals have traditionally been the servant of the specialists who [brings] admit their patients to the hospital. The surgeon exercises their discretion as to which patients to place on a private hospital [waiting] theatre list and which hospital to take their patients to.

As the private hospital is materially dependent on the goodwill of the specialist, many private hospitals have been reticent to hold their surgeons to account. Private hospitals have resisted being judged on the basis of the performance or outcomes of the specialist who operate at their hospital.

Health insurers are increasingly focusing on outcomes and asking hospitals to meet the cost of complications that arise from the surgeon or hospital not following accepted guidelines.

#### 8.2.7.3 Falling Private Health Insurance Participation

During times of economic turmoil, Australians tend to downgrade their private health insurance or reduce their private health care utilisation, often out of a fear of the unknown out-of-pocket expenditure. As private health insurance participation falls, member utilisation of private hospitals reduces, thus reducing private hospital revenue.

#### 8.2.7.4 Maximising Revenue

As mental health and rehabilitation services are funded on a per diem basis, while surgical admissions are primarily funded on a DRG basis, there is a significant opportunity to maximise revenue by building or converting beds. This revenue optimisation has seen significant growth in rehabilitation and mental health beds in Australia over the past 5 years.

#### 8.2.7.5 Integration with Medical Staff

With falling health insurance penetration, falling private hospital utilisation, increasing medical graduates and moves by health insurers to hold hospitals to account for complications, there is increasing incentives for private hospital and specialists to work closely together. Medical staff are becoming increasingly organised and engaging more collaboratively with private hospital administration. There are some early moves towards exploring bundled payments with reduction in the number of accounts a patient is required to pay and reduced total out-of-pocket costs. Some private hospitals are looking at employing doctors to cover their Emergency Departments or after hours services and exploring the opportunities to offer visiting specialists different employment conditions, such as moving them to a salaried role.

## 8.3 Private Health Insurance

### 8.3.1 Overview

There are two basic types of health insurance available in Australia—Resident Cover and Non-resident Cover. Resident Cover is designed for people who are eligible for Medicare, and Non-Resident cover is for visitors or temporary residents.

The 34 health funds market two types of products—Hospital cover and General cover [,] (also called Extras or Ancillary cover). Most health funds also offer products which are a combination of these two product types—known as packaged products. Private Health Insurance presents a value proposition based on members having:

- Greater flexibility in the choice of hospital.
- A dedicated specialist.
- Flexibility around the date of admission.

Private Health Insurance also provides cover for health services that the public system does not cover such as dental, physiotherapy, psychology and, in some states, ambulance services.

Each fund markets a set of [highly commoditised] standard products that have [very] comparable features and similar pricing. Even so, it can be very challenging for a potential member to identify the specific benefits offered and compare the cost of various insurance products.

Each year private health insurance members claim 3.8 million hospital episodes and 78 million ancillary episodes at a total cost of $15.3 billion in member benefits paid.

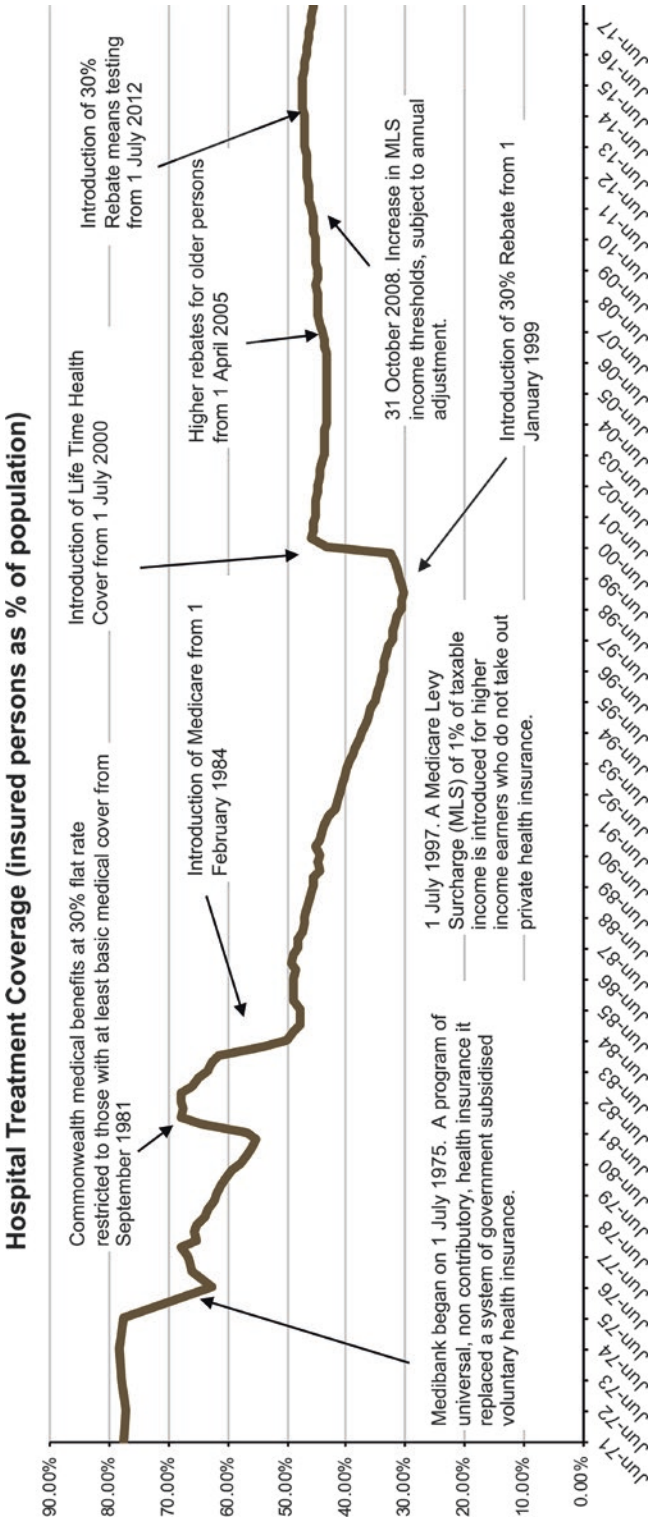


**Fig. 8.3** Hospital treatment coverage (insured persons as percent of population). (From Australian Prudential Regulation Authority (APRA). © Commonwealth of Australia)

Forty-seven percent of Australians have Hospital cover and 55% have General cover [3] (Fig. 8.3). The Government provides several mechanisms to encourage people to take out and hold Private Health Insurance, particularly Hospital cover. These include the Government Rebate, Lifetime Health Cover and the Medicare Levy Surcharge.

Private Health Insurance (PHI) in Australia is heavily regulated. The Private Health Insurance Ombudsman (PHIO) protects the interests of people with private health insurance. Amongst other things PHIO manages complaints from members and other funds.

The Australian Prudential Regulation Authority (APRA) ensures that health insurer's services are [met] delivered within a stable, efficient and competitive financial system. Private Health Insurance premiums have consistently risen at well above the rate of inflation. Cost growth is driven by a combination of an ageing population and subsequent increased utilisation, and private health cost pressures.

The Commonwealth Government approves any changes to the rates an insurer can charge for Resident Cover, after annual application by the insurers. With constraints on the price an insurer can charge a member, insurers must control claim costs and management expenses if they wish to return a profit or ensure a suitable result for shareholders. The majority of health insurers have seen falling margins over the past 2 years.

Public hospitals are also major beneficiaries of private health insurance funding. Patients who are admitted to a public hospital and who have [with] private health insurance are encouraged to declare their status and elect to be treated as private patients in public hospitals. This election by the patient enables the public hospital to bill the insurance fund for the accommodation component of the patient's stay. Public hospitals may also bill for the medical costs on behalf of those specialists who have assigned the hospital their rights of private practice.

While health insurers, hospitals and surgeons all focus on their income and profits, all three parties have a similar ultimate goal—to provide or procure what is best for the patient.

### 8.3.2 Private Health Insurers

There are 34 health funds operating in Australia. Medibank Private Limited (Medibank) and nib health funds limited (NIB) are publicly listed and the remaining [eight] are either for-profit or not-for profit. Twelve are restricted access funds. Restricted access funds have specific target markets or are limited to members of a particular organisation or vocational group. The largest five health funds account for 82% of all members [4].

There has been industry consolidation over the past 10 years. In 2008, Medibank purchased Australian Health Management (ahm), the same year BUPA acquired Medical Benefits Fund (MBF), Hospitals Contribution Fund of Australia Limited (HCF) acquired Manchester Unity and GMHBA Limited acquired Druids Health Fund.

Most funds offer more than just health insurance and are becoming increasingly diversified as they attempt to spread their organisational risk and expand their revenue base.

As well as its private health insurance arm, Medibank Private Limited also offers access to travel, pet and life insurance. It is Australia's largest telehealth provider. It is increasingly investing in chronic disease management and home based care—both in its own right, in collaboration with primary care and in joint ventures with several State health departments.

Medibank operates Garrison Health—procuring health services for the armed forces and also provides the Disability Medical Assessment service for the Department of Human Services.

BUPA is a wholly foreign owned company with its parent body in the United Kingdom. It offers private health insurance and access to general and travel insurance. BUPA has a significant investment in aged care in both Australia and New Zealand. It operates its own branded optical outlets and offers both workplace and corporate health services. BUPA recently took over the operation of the Immigration Medical service,

coordinating the health assessments for people requiring a medical examination for immigration purposes.

Australian Unity is a mutual organisation which is owned by the members. In addition to its health insurance offering it also offers access to general and travel insurance. It has a retail investment business covering all major asset classes and provides financial advice. Australian Unity also offers retirement living. It operates dental clinics and Remedy Healthcare, which provides allied health services, health coaching, workplace health and home-based rehabilitation.

### 8.3.3 Government Mechanisms to Increase Uptake of Private Health Insurance

Since the early 1970s the Australian Government has implemented a range of incentives to encourage the uptake of private health insurance. The argument for this incentive programme is that each additional person who takes up private health insurance reduces the demand on public hospitals. Private health insurance also increases the potential revenue that public hospitals can attract through billing privately insured patients who are admitted to public hospitals.

This assumption has recently been called into question by the University of Melbourne which published a paper showing savings from reducing spending on rebates outweigh the predicted increase in public hospital costs by a factor of roughly 2.5.

Current mechanisms directed at increasing PHI uptake include the:

- Medicare Levy Surcharge
- Australian Government Rebate
- Lifetime Health Cover

#### 8.3.3.1 Medicare Levy Surcharge

Introduced in July 1997, the Medicare Levy Surcharge (MLS) requires those earning a higher income to have an appropriate level of private patient hospital cover or pay a levy. The surcharge is levied by the Australian Taxation Office (ATO) and applies to any period of the year that the person did not have the appropriate level of cover for themselves and all of their dependents. In the 2015 financial year the levy ranged from 0% for those earning less than $90,000 to 1.5% for those earning over $140,000 ($280,000 for a family—including single parent families) Thresholds are increased for a second and any subsequent dependent child. The thresholds refer to "income for surcharge purposes", rather than ordinary measures of assessable income.

To avoid the levy a person must have Hospital Cover under a Complying Health Insurance Product (CHIP) with an excess of $500 or less for singles, and $1000 or less for couple or family scale.

Persons who are Australian residents for taxation purposes, but who do not have access to Medicare can get exemption from MLS liability by applying to the ATO.

If a member suspends their cover, the health fund would normally inform them about the impact the Medicare Levy Surcharge may have on their income tax.

#### 8.3.3.2 Australian Government Rebate

The Commonwealth Government introduced the Australian Government Rebate (AGR) from 1 January 1999. The rebate offsets the amount of premium a person pays for their health insurance. When it was introduced, the rebate covered 30% of the cost of private health insurance.

The rebate applies to all Complying Health Insurance Product compliant products including General and Ancillary products. To receive the rebate a person must be eligible to receive funding under Medicare, so it does not apply to non-resident products such as Overseas Student Health Cover or Visitors Cover.

The AGR is a tiered entitlement based on a person's age and income. The income thresholds are the same as for the Medicare Levy Surcharge. In the 2015 financial year, a single person over the age of 70 and earning less than $90,000 received a rebate of 37.09%, while those aged under 65 and earning over $140,000 are not eligible for any rebate.

The rebate can be taken as either a reduced premium up-front or as a tax rebate.

Since 2014, the rebate has been indexed using a formula based on the lesser of the Consumer Price Index (CPI) or the average annual increase in private health insurance premiums. This means that the rebate will gradually reduce as premiums continue to rise faster than the CPI.

#### 8.3.3.3 Lifetime Health Cover

The third mechanism, Lifetime Health Cover (LHC), was introduced in July 2000. This initiative aims to encourage people to take out Hospital Cover early in life and to maintain their health insurance cover without a break. Once again this incentive only applies to Hospital Cover and not to General Extras or Ancillary products.

Lifetime Health Cover imposes a 2% loading for each year that a person delays taking out Hospital cover after the age of 30. The maximum loading is 70%. So if a person decides not to buy health insurance till they turn 50, they will pay 40% more in premium than someone who joined at the age of 30. Once you have held private health insurance for 10 years, the loading is suspended.

To avoid the LHC penalty, a person who moves to Australia must take out health insurance within 12 months of becoming eligible for full Medicare cover.

To minimise a person's liability under Lifetime Health Cover loading they need to ensure that the cumulative period for which they do not have the required Hospital Cover does not exceed 1094 days, known as the Permitted Days Without Hospital Cover. Going overseas may not count as part of this gap, though the rules for overseas exemption are complex.

The insurer must charge the member the Lifetime Health Cover loading, and the insurer keeps the funds collected. Since July 2012, the Australian Government Rebate has not been applicable to the Lifetime Health Cover loading, leaving the member to meet the full cost of the higher premium.

Where a couple take out joint health insurance and only one partner has taken out private health insurance by their 30th birthday, the loading is applied to 50% of the hospital portion of the joint premium.

### 8.3.4 Regulation of Private Health Insurance

Private health insurance (PHI) in Australia is heavily regulated. The *Private Health Insurance Act 2007* is the key piece of legislation governing the operation of health funds. The legislation sets out such things as the minimum benefits that must be included in a health insurance product covering hospital treatment, the communication a fund must have with its members, the allowable waiting periods, rules for the transfer of membership between funds, the community rating rules and quality assurance requirements.

The Department of Health administers the *Private Health Insurance Act 2007* and many associated rules and regulations. It regularly releases PHI circulars to provide information and guidance to the industry.

#### 8.3.4.1 Australian Prudential Regulation Authority

The Australian Prudential Regulatory Authority (APRA) provides prudential oversight of the industry. APRA's role includes collecting and disseminating financial and statistical information about health funds and private health insurance. It also sets and requires compliance with capital adequacy and solvency standards.

#### 8.3.4.2 Rate Rises

Each year health funds submit a request to increase the average premium across their Resident Cover product portfolio. These requests must be made at least 60 days before the premium increase is to take effect and are considered by the Department and require approval by the Minister for Health. The health insurer must then provide all members with reasonable notice of the increase in their product premium. A key consideration in premium increases is the fund's ability to maintain sufficient reserves to meet the capital adequacy requirements established by APRA.

#### 8.3.4.3 Private Health Insurance Ombudsman

The Private Health Insurance Ombudsman (PHIO) operates out of the Office of Commonwealth Ombudsman.

The role of PHIO is to protect the interests of people covered by private health insurance. PHIO operates an independent complaints handling service, provides education and advice services for consumers and advises the industry and government on issues of concern to consumers.

The Ombudsman can deal with complaints from health fund members, health funds, private hospitals or medical practitioners. Complaints must be about a health insurance arrangement.

### 8.3.5 Health Insurance Products

#### 8.3.5.1 Complying Health Insurance Policies Requirements

Products that health insurers offer to Australian residents must meet the Complying Health Insurance Policies (CHIP) requirement. Offering a product that does not comply with the CHIP requirements can incur significant penalties.

To be CHIP compliant (Div. 55), the product must meet the:

- Community rating requirements (Div. 66)
- Coverage requirements (Div. 69)
- Benefit requirements (for hospital treatment coverage) (Div. 72)
- Waiting period requirements (Div. 75)
- Portability requirements (Div. 78)
- Quality assurance requirements (Div. 81)

#### 8.3.5.2 Community Rating

Community rating[1] prohibits an insurer from selling products that improperly discriminate against any person buying that product [5]. The Private Health Insurance Act 2007 (the Act) quite specifically precludes insurers from discriminating on the grounds of age, gender, state of health and propensity to claim benefits. It also precludes discrimination on the basis of the place where the person lives, although premiums and benefits can vary between States and Territories as these are seen to comprise separate economic markets.

The community rating provisions require an insurer to offer the same premium to every person who wishes to take out cover under that product. Premiums can however differ due to scale, so a single person, couple or family can pay different premiums. An insurer can offer a product that would likely attract a certain age group, family group or health risk category, but anyone who wants to purchase that product must be able to access it at the same price. So if an insurer offers a product that includes obstetrics, it must be available to any person who wants to purchase that product, at the same price, irrespective of their past obstetric history, their age or where they live.

An exception to the premium parity aspect of community rating is the Lifetime Health Cover loading that can increase the price of a Hospital cover if the person has delayed taking out cover or not had cover for an extended period of time.

Insurers are also limited in how they apply discounts and offer promotional incentives. Discounts are typically allowed for actions that reduce the administrative cost of offering health insurance such as: premium payment in advance, premiums paid via payroll deductions or automatic payment and electronic claiming.

Insurers are not allowed to discount their products by more than 12% for any group nor are they allowed to offer No-claims bonuses. If a discount is offered, then the same discount must be made available to all people who meet the criteria for the discount.

Any insurer can tailor a product for a specific company or group. However, although the insurer is not required to advertise that it has a special product, any person must be able to purchase a policy in such a product, though they may not be eligible for specific discounts that may have been offered to the target group.

#### 8.3.5.3 Coverage Requirements

To meet the coverage requirements an insurer must offer policies in one of two broad categories: Hospital Treatment and General Treatment.

[1] Div 55

Hospital Treatment funds interventions that manage a disease, injury or condition and where the treatment takes place in a licensed hospital or is arranged or managed by a hospital. It does not typically include treatment that is preventative in nature.

General Treatment is to manage or prevent a disease, injury or condition (s.121-10). A general treatment policy cannot be used for treatment provided in a hospital nor can it be used to fund or contribute to out-of-hospital services that attract a Medicare rebate.

Section 126 of the *Health Insurance Act 1973* prevents insurers from contributing to the cost of an out-of-hospital medical service for which a Medicare benefit is claimed. There is a complementary provision in the *Private Health Insurance Act 2007.* These clauses preclude private health insurers funding primary care, outpatient specialist visits, and community radiology or pathology services, optometry and other Medicare funded services.

The coverage requirements of the legislation also address hospital substitution services that fall between hospital treatment and general treatment.

#### 8.3.5.4 Benefit Requirements

All hospital treatment products are required to include inpatient psychiatric, rehabilitation and palliative care. The benefit requirements sections of the Act also set out a mechanism for determining the default or minimum rate that insurers must pay for hospital treatment and for surgically implanted prostheses.

A prostheses list is created and regularly updated by the Minister. The list sets out the prostheses that must be funded by the insurer and the minimum (and sometimes the maximum) rate that the insurer is required to pay.

#### 8.3.5.5 Waiting Period

Insurers are allowed to impose a waiting period on members who join a fund or upgrade their cover. The maximum waiting period is 12 months for pre-existing conditions and obstetrics. For all other hospital treatment, including mandatory treatment (psychiatry, rehabilitation and palliative care), the maximum waiting period is 2 months.

There is no maximum waiting period that an insurer may impose for General Treatment.

An insurer may decline to fund hospital treatment on the basis of the pre-existing condition waiting period where the signs or symptoms of the condition were apparent in the 6 months before the person joined or upgraded their cover. This is known as a Pre-Existing Condition or PEC. A diagnosis is not required for a condition to qualify as a Pre-Existing Condition. The criteria are that the member has experienced the symptoms of the condition or that the signs of the condition were apparent.

A Medical Advisor appointed by the insurer must make the determination that the condition is pre-existing.

Common contentious PECs include conditions such as:

- Wisdom teeth removal where a dentist could have diagnosed the condition had the member presented for assessment.
- Treatment of infertility where the member's partner has the condition.
- Positive results from screening tests, such faecal occult blood tests, pap smears or mammography.
- Hernia where there is a congenital weakness.
- Tonsillitis, particularly in young children.

#### 8.3.5.6 Portability Requirements

The portability provisions of the Act help ensure a person can easily transfer between insurance funds without losing benefits.

Where a person has had hospital cover with one insurer and takes out cover with another insurer, the second insurer is obliged to recognise the person's previous duration of cover. Most insurers allow a maximum gap in cover of one to 2 months. The second insurer cannot apply a waiting period under the new cover that is longer than the unexpired waiting period on the original cover.

When a person wishes to transfer from one fund to another, they request a Clearance Certificate from their current fund. This certificate

outlines the nature and level of their cover, join date, cancellation date, Lifetime Health Cover information and any history of recent claims.

In most cases, when a person transfers between funds, they are entitled to receive back the unused portion of their premiums, less an administration fee. The insurer is also expected to refund to Medicare any Australian Government Rebate amount claimed in respect of the refunded premiums.

#### 8.3.5.7 Quality Assurance Requirements

All health insurers are required to ensure that they only pay benefits towards treatments where the provider of the treatment has met the various registration requirements set in the Private Health Insurance (Accreditation) Rules.

#### 8.3.5.8 Prudential Requirements

Each fund is required to maintain sufficient liquidity and capital reserves. These reserves are held in the insurer's Health Benefits Fund. This fund operates somewhat like a trust and holds all premiums received by the insurer. Insurers are able to withdraw money from the fund to meet the cost of benefits paid for their insured members. The insurer is also able to use the moneys in the Health Benefits Fund to meet certain other expenses of the business.

### 8.3.6 Mandatory Communications

Every year each insurer is required to send each adult member a copy of the Standard Information Statement that relates to his or her particular product. Insurers are also required to send members a statement on their Lifetime Health Cover and their annual tax statement.

All Resident Cover policy holders must be notified in advance about any change to the insurer's rules that are or could be detrimental to the interests of the policyholder. This would likely include such things as removal of cover for certain treatments, reduction in the amount the insurer pays for a treatment or a change in the financial limits for a type of treatment.

### 8.3.7 Standard Information Statements

Standard Information Statements are product specific information sheets that indicate what the member has cover for under the particular product that they have purchased. The insurer prepares the Standard Information Statements to assist a member or potential member understand what is included in a particular product and enable them to compare various products between different insurers.

To make comparison between products easier, the Standard Information Statements must be prepared using a standard format. There are separate templates for hospital products, general treatment/ancillary products, and combined products.

A Standard Information Statement includes what the product covers, what is excluded, what services have only limited cover, what the waiting period is, what the excess is and extra features the product might include.

The Standard Information Statement must be given to a person when they enquire about a product and when someone takes out cover. They must also be sent out to each member every year.

Standard Information Statements are also hosted by the Private Health Insurance Ombudsman and are available at the privatehealth.gov.au website.

### 8.3.8 Fund Rules

Every insurer has a set of Fund Rules that state the membership entitlements and obligations.

While the main rules of the health fund are publicly available from the individual insurer, the specific product schedules frequently have restricted availability.

### 8.3.9 Risk Equalisation

One of the key challenges in the operation of Private Health Insurance is managing the risk of adverse selection and catastrophic claims, particularly in the context of community rating

where everyone pays the same price for a particular product.

Adverse risk selection comes about through an insurer attracting older, sicker or riskier members. Generally, the older an insured person is, the higher their health costs and consequently the higher the benefits claimed. Catastrophic claims are those where members have a major complication or require very complex or extended surgery that results in extraordinary and unanticipated costs.

Smaller funds are particularly vulnerable to catastrophic claims, as they do not have a sufficiently large pool of members across which to spread the risk.

In Australia, these risks are managed through risk equalisation. Risk equalisation aims to bring all insurers' experiences of claiming closer to the average.

Risk equalisation only applies to benefits arising from hospital treatment, hospital substitute treatments and chronic disease management programme benefits; it does not apply to General treatment.

Risk equalisation is established in the Private Health Insurance Act 2007 and is operated according to a set of rules promulgated by the Minister.

There are two pools: the age-based pool and the high-cost claimants pool.

The age-based pool requires each insurer to contribute a proportion of collected premium based on the member's age. The percentage of eligible benefits included in the age-based pool varies from 0% for those under age 55 to 82% for those aged 85 and over.

The High-Cost Claimants Pool is made up of 82% of the benefits in excess of $50,000 that have been paid in the preceding 12 months. These payments are discounted by the amount that may have been paid under the Age-Based Pool.

Risk equalisation funds are pooled and redistributed to the various insurers based on the assessed risk of the members for whom they provided cover during the year.

While risk equalisation enables smaller health funds with limited numbers of members to operate in Australia, it reduces the insurer's incentive to manage the health risk of its members. Older members and those with chronic disease are the most amenable to chronic disease management and preventative interventions, however, because the risk is calculated after the event, the risk equalisation process results in only a proportion of the savings reverting to the member's insurer with the majority of savings accruing to all participating insurers.

### 8.3.10 Informed Financial Consent

Before a person with private health insurance is admitted to hospital, they are entitled to be informed about any out of pocket expenses that they are likely to face during their hospital stay. This includes any charges that the hospital may raise, the treating specialist may charge, the cost of investigations or the excess the insurer may require them to pay. For major treatment, the information should be provided in writing.

Once the member has agreed to the out of pocket expenses they can lodge a complaint with the Ombudsman if the final bill varies from what was consented to.

### 8.3.11 Products

Health insurance products fall into two basic categories—those targeted to Australian Residents (Resident Health Insurance Business) and those targeted at visitors or temporary residents (Non-Resident Business).

The non-resident products include cover for visitors, people on working visas and overseas students.

Health Insurance products are built around two types of treatment: Hospital Treatment or General Treatment.

#### 8.3.11.1 Hospital Treatment

Hospital treatment must manage a disease, injury or condition (s121-5). Hospital treatment must be provided at or with the direct involvement of a hospital.

Hospital treatment includes: accommodation, nursing, medical, surgical, podiatric surgical, diag-

nostic, therapeutic, prosthetic, pharmacological and pathology services that are provided while the person is in hospital. The treatment also includes the cost of surgically implanted prosthesis.

Because treatment must manage a disease, injury or condition, insurers are precluded from paying benefits for "cosmetic" treatments, or treatments that do not have an underlying medical need. Without a medical need for the treatment, the intervention lacks the necessary element of insurable risk and so the treatment does not qualify as insurance.

The definition of what constitutes cosmetic treatment has been debated for many years; however, a common definition is any treatment which is not medically necessary and aims to revise or change the appearance, colour, texture, structure or position of normal bodily features. Each insurer has a slightly different definition.

#### 8.3.11.2 General Treatment (Ancillary)

General treatment must manage or prevent a disease, injury or condition (s.121-10). If a treatment can be classified as hospital treatment then it cannot be considered general treatment.

Insurers sell general treatment products under a range of names including extras and ancillary products.

General treatment includes services such as:

- Dental.
- Optometry (frames and prescription lenses).
- Physiotherapy, Chiropractic and Osteopathy.
- Alternative therapies—including natural, complimentary and/or alternate therapies and remedial massage.
- Ambulance transport and attendance.

Optometry covers prescription lenses and frames but typically excludes items such as sunglasses as they are not considered medically necessary. GP visits, specialist visits and optometry examinations are precluded because they are eligible for a Medicare rebate.

Remedial massage is often included in general treatment as it meets a clinical need; however, mere relaxation massage should not be covered.

#### 8.3.11.3 Hospital Substitute Treatment

Hospital substitute treatment is technically a form of General Treatment, but it can only be covered under a policy that also covers hospital treatment for the same services. This enables the insured person to choose whether to obtain the treatment in a hospital or in the hospital-substitution setting.

## 8.4 Designing an Insurance Product

In designing a hospital product, the health insurer attempts to identify their target market and the components of a product that are likely to be attractive to a new member. Some members may be seeking peace of mind, and so will be attracted to a product that covers every imaginable disease or condition. The inherent risk associated with such a broad cover means this sort of product will carry a high price. On the other hand, many people are looking for the cheapest hospital product that allows them to avoid the Medicare Levy Surcharge or preserve their Lifetime Health Cover status. Such a product might only pay the minimum default benefits for the mandatory requirements for admitted patients (psychiatry, rehabilitation and palliative care), might restrict cover to treatment required as the result of an accident or only cover admission as a private patient in a public hospital. Young families may only be looking for obstetric cover and cover for childhood conditions such as tonsils and grommets.

For each potential product, the insurer's actuaries assess the likely utilisation pattern and the cost of the treatment. They then add a margin to cover the insurer's management expenses and an expected rate of return to arrive at a price point that is sustainable over the longer term.

Most insurers have a range of products from Basic or Budget with minimal benefits through to extremely comprehensive products sold under names such as Ultra or Ultimate Cover.

The type of inclusions or exclusions that distinguish the various products include interventions for conditions such as: those arising from

accidents, joint replacement, heart-related conditions, wisdom teeth removal, obstetrics, infertility, weight-related surgery, dialysis, cataract surgery or tonsils and adenoids.

Products will often also include an option for the member to make a contribution to the costs of treatment, and so reduce the premium. This may be in the form of an annual deductible, an excess (In a technical sense, each different excess constitutes a separate product) or a co-payment for each episode of care. Common excess levels for hospital products are $250 or $500. For a product to be capable of exempting a person from the Medicare Levy Surcharge liability, the maximum excess is $500 for a single scale policy and $1000 for any other scale. Such a product must also be a "complying health insurance product". Insurers can sell products with higher levels of excess and these can still limit exposure to Lifetime Health Cover loading, but not the Medicare Levy Surcharge.

Other ways that insurers reduce their risk include:

- Creating a preferred network of providers with whom the insurer contracts at a preferential rate
- Placing restrictions on the type of procedures that are covered, for example not covering joint replacement or physiotherapy
- For General Treatment, limiting the rebate that the insurer pays. Examples include:
  - An annual limit by service type ($300 per year for optical)
  - A set amount rebate ($60 per visit)
  - A set percentage rebate (60% of provider's bill)

### 8.4.1 Overseas Student Health Cover

A person from overseas, coming to study in Australia, requires an overseas student visa. With a few exceptions, before a student, their partner and any dependents arrive to study in Australia they must provide evidence that they have purchased an Overseas Student Health Cover (OSHC) policy.

To qualify for OSHC the immigration department requires the student to provide a medical clearance. These medical assessments are, however, often undertaken some time before the student arrives in Australia.

While some overseas students come from countries listed in the next section, that have a Reciprocal Health Care Agreement (RHCA) with Australia, the RHCAs provide limited coverage and do not cover many of the more common health needs.

The Federal Government articulates a deed that covers the conditions under which an insurer can offer Overseas Student Health Cover and insurers and the Commonwealth agree to these arrangements by entering into a Deed. Only a private health insurer can enter into such a Deed.

The OSHC deed requires the insurer to offer a product that provides minimum benefits equivalent to that which are available to Australian residents under Medicare and public health systems.

OSHC products must offer the following minimum benefits:

- Hospital charges for private hospitals contracted with the insurer and public hospitals—including emergency department and outpatient services. States and Territory health authorities set maximum or recommended charges for patients who are non-residents and are treated in public hospitals.
- In-hospital medical charges (100% of MBS).
- Prostheses.
- Out-of-hospital medical charges (Medicare).
- Pharmaceuticals (PBS).
- Ambulance services.

OSHC policies are subject to that part of the community rating principle that comprises the prohibition on improper discrimination. This means that the insurer must offer standard products at set prices to all applicants, irrespective of health risk. Risk equalisation does not apply, so risks cannot be spread between insurers.

OSHC policies include a 12 month waiting period (2 months for psychiatric treatment, rehabilitation and palliative care) for pre-existing conditions. The waiting period commences from the date the student arrives in Australia.

Notwithstanding the waiting period, OSHC provides access to health services when these are for "emergency treatment". "Emergency Treatment" means the treatment of any of the following conditions:

- A risk of serious morbidity or mortality and requiring urgent assessment and resuscitation or
- Suspected acute organ or system failure or
- An illness or injury where the viability of function of a body part or organ is acutely threatened or
- A drug overdose, toxic substance or toxin effect or
- Psychiatric disturbance whereby the health of the patient or other people is at immediate risk or
- Severe pain where the viability or function of a body part or organ is suspected to be acutely threatened or
- Acute haemorrhaging and requiring urgent assessment and treatment or
- A condition that requires immediate admission to avoid imminent morbidity or mortality

Services that cannot be covered under OSHC include: assisted reproduction, treatment provided outside Australia, treatment arranged in advance of the student's arrival, treatment of secondary conditions or disabilities from pre-existing conditions, repatriation and elective cosmetic surgery.

OSHC does not cover services or treatment that is covered by compensation, damages or any other entitlement.

### 8.4.2 Reciprocal Health Care Agreements

Countries with reciprocal health agreements include: New Zealand, the United Kingdom, the Republic of Ireland, Sweden, the Netherlands, Finland, Italy, Belgium, Malta, Slovenia and Norway. These agreements mean residents of these countries can get some essential medical treatments while visiting Australia.

The nature and extent of the RHCAs vary from country to country and in some cases may not apply after a person has been in Australia for 6 months or more.

### 8.4.3 Funding Hospital Treatment

The three main benefits paid by insurers for a hospital admission are the accommodation costs, the prostheses costs and the medical practitioner costs.

#### 8.4.3.1 Accommodation Costs

Health insurers adopt a range of payment frameworks to meet the cost of private hospital accommodation. Most of the larger funds contract with private surgical hospitals on the basis of Diagnosis-Related Groups (DRGs), paying the hospital a set amount based on the attributed relative value of the admitting diagnosis. Under the DRG payment model, the insurer will contract with the hospital agreeing a Price Weight of One (PWO). This PWO is multiplied by the relative weight of the admitting DRG to arrive at the price that is paid for the particular diagnosis to that hospital. Each DRG has a maximum length of stay trim point, after which the insurer may revert to a per diem payment.

Insurers have adopted various versions of DRGs and some insurers further modify their DRG case weights to achieve what they believe is a fairer price for a particular procedure. Many insurers pay for services such as Intensive Care Units separately from the DRG payment.

Some of the smaller funds continue to pay on a per diem basis. While this is a simple reimbursement model, it substantially relies on the hospital having DRG-based contracts for the majority of its work in order to moderate the average length of stay.

Most rehabilitation and palliative care services remain funded on a per diem basis.

Day procedures are mainly reimbursed on the basis of banding. The industry has established a National Banding Committee that agrees the banding framework and determines the banding rules. Each fund then negotiates their unique

price for each band of service. In the absence of negotiated agreements, the benefits payable follow the minimum specifications in the Private Health Insurance (Benefit Requirements) Rules.

#### 8.4.3.2 Second Tier and Default Rates

Where an insurer has a contract with a hospital, the hospital is paid the contracted rate.

When there is no agreement between the hospital and the insurer, or when such an agreement does not cover a particular type of treatment, then the minimum benefit that applies for a second tier hospital is worked out according to a formula that equates (approximately) to 85% of the average negotiated contract price for that treatment paid by the insurer to comparable hospitals in that State. To qualify for the second tier rate, hospitals must be are recognised as having second tier status, accorded them on the basis of certain standards in quality and safety and other criteria.

Public hospitals are generally paid at the Default benefit rate, on a per diem basis. The Default rate is set by the Commonwealth, and is generally considerably lower than the Second Tier rate.

#### 8.4.3.3 Emergency Department Presentations

Emergency department presentations are not considered hospital treatment under the legislation. Any medical attendance is therefore considered an outpatient event and covered by Medicare.

Insurers can only pay a facility fee, if one is charged by a private hospital Emergency Department, and can only do so as a general treatment item. Where the patient is eligible for Medicare, the insurer cannot contribute to the medical costs associated with a private Emergency department visit.

#### 8.4.3.4 Prosthesis Costs

Health Insurers are required to pay for surgically implanted prostheses that are inserted as part of a hospital admission where the procedure is listed on the Medicare Benefits Schedule (MBS). The benefit the insurer pays for the prosthesis is established through the approved Prostheses List. This list is established under the Private Health Insurance (Prostheses) Rules and is maintained by the Commonwealth Department of Health.

Once a prosthesis receives Therapeutic Goods Association (TGA) approval, as being safe for use in Australia, the manufacturer or importer will usually apply to have the prosthesis added to the Prosthesis List. The manufacturer will also indicate the price that they believe they should be paid. The Minister for Health establishes whether a prosthesis should be listed and at what price. The Minister receives advice from the Prostheses List Advisory Committee (PLAC) who considers advice from Clinical Advisory Groups, the Panel of Clinical Experts and the Pricing Oversight Committee.

The list identifies over 10,000 products and is updated regularly as new prostheses are added and any that have been found to be unsafe by TGA are withdrawn.

The supplier is at liberty to negotiate discounts with the private hospital, while the insurer is obliged to pay the benefit indicated on the Prosthesis List. Public hospitals are allowed to charge an amount that is lower than the Prosthesis List minimum benefit.

#### 8.4.3.5 Medical (Specialists) Costs

The medical specialist is able to charge the patient what they believe is a fair market rate for their skills and training. The Commonwealth publishes the Medicare Benefit Schedule (MBS) which includes an MBS fee. This fee has been frozen for some year. The Australian Medical Association also publishes a fee schedule that they believe more accurately reflects a reasonable rate for each service.

Medical specialists bill the private health insurer using the Medicare Benefit Schedule (MBS) item numbers to describe the service they have provided. Most insurers restrict specialists to only billing for procedures that have been granted an MBS item number.

Insurers commonly require Medicare to first assess and pay the Medicare component of the account. Medicare reimburses the specialist 75% of the MBS fee for those procedures that are performed on an admitted patient in hospital. The fund is required to then pay the specialist at least

the gap between what Medicare pays and 100% of the MBS fee.

Insurers offer specialists a range of gap cover schemes to assist a policyholder to meet the "gap" between the specialist's charge and the MBS fee. With No Gap the insurer pays a substantially higher benefit to the specialist if they agree not to charge the patient any out of pocket costs for the particular treatment or to limit their total charge to within a cap specified by the insurer. Medical specialists receiving No Gap funding are usually required to interact electronically with the fund.

### 8.4.4 Public Hospitals

Public hospitals in Australia are able to bill private health insurers when a member is admitted and elects to be treated as a private patient. The patient who elects to be treated as a private patient declares their health insurance status and signs a declaration agreeing to the public hospital billing the insurer.

State governments have encouraged public hospitals to actively pursue opportunities to increase their private health insurance revenue, particularly as the funding from the State has been constrained.

The proportion of patients with private health insurance who are identified by public hospitals is unknown. In terms of costs to the health funds, public hospitals now make up one of the larger hospital groups.

Public hospitals generally bill the health fund on a per diem basis at the default rate set out for that State.

As public hospitals bill on a per diem basis, there is little incentive for them to supply health funds with the coding detail required to validate a DRG payment. This has resulted in health insurers having limited knowledge about the services provided in public hospitals. Insurers are exerting considerable effort on public hospital to require them to submit their claims though Eclipse—the electronic transaction platform operated by Medicare, which requires the submission of complete code sets.

#### 8.4.4.1 Rights to Private Practice

Medical staff who are employed by a public hospital are precluded from accessing Medicare benefits, yet in order to bill the health fund for the specialist's time, Medicare must first have paid their 75% of the fee.

In order to work around the preclusion on employed medical staff billing Medicare, public hospitals have put in place a variety of complicated arrangements that allow specialists to exercise their right to private practice, assign their billing rights to the hospital and have the hospital retain the specialist's earnings. Any money raised usually reverts to the hospital, though a proportion may be allocated to a special purpose fund that can be used to enhance the clinical service, fund education or develop the facility.

## 8.5 Billing Health Funds

In order to be paid, hospitals must submit a claim to the health insurer. This claim can be submitted manually, or by using the industry electronic claiming portal known as Eclipse. Eclipse also provides the hospital with the ability to verify a member's cover, product type and eligibility for a particular procedure.

General treatment providers mostly use the HICAPS platform to electronically bill the insurer. HICAPS works as an eftpos payment type service with dedicated terminals in the provider's rooms.

Members can also be given the account by the provider and subsequently seek reimbursement from their insurer.

### 8.5.1 Challenges and Issues

Private health insurers face a range of challenging issues. With increasing costs, rising demand and increasing supply of both hospital beds and specialist capacity, the industry is experiencing tighter margins and slowing growth. Rate rises are constrained, resulting in a narrowing gap between premium income and expenses.

Australia is also experiencing [as] an ageing population with a higher awareness of the value of health care and relatively high population growth. Australia is one of the richest countries by Gross Domestic Product (GDP) per capita and health care expenditure continues to expand as a proportion of GDP.

The Commonwealth Government's shrinking investment in public health services is encouraging Australians to reconsider the value of private health insurance.

### 8.5.2 Compounding Cost and Demand Growth

Benefit claim costs are growing at 7% or more each year while revenue growth for private health insurers is constrained by regulation and has been held to between 4 and 6% per year.

Benefits paid to hospitals rose by 24% in the 3 years between 2010 and 2013. (Data reported by Medibank in its own experience.) [6] Over the same period the cost of a hip replacement rose by 6% while the number of admissions increased by 12%.

Unnecessary or inappropriate care drives up utilisation. This increases premium rates, which in turn makes health insurance less affordable and so reduces the participation rate. When fewer people take out health insurance, or more people downgrade their cover, there are fewer insured patients for surgeons and hospitals to operate on. This places additional pressure on price as hospitals and surgeons attempt to maintain their income.

To counter the trend in rising costs, insurers are becoming more aggressive in their contracting with hospitals, selecting hospitals that meet quality or price criteria to become part of the insurer's preferred provider network.

Insurers are also focusing on leakage in an attempt to ensure members only receive benefits for which they are covered, increasing audits to ensure claims match services provided and reducing opportunities for providers to game the system in order to maximise their income.

### 8.5.3 Ageing Population

Australia has an ageing population and older people tend to consume more health services. With community rating, the insurer is required to cross subsidise between younger healthier members and the older population. As the relative pool of younger members shrinks, the capacity to cost shift is reduced. Risk Equalisation does not fully account for the higher risk associated with age.

### 8.5.4 Appropriate, Efficient and Effective Care

As part of the drive towards quality, health funds are increasingly looking for evidence of effective outcomes from treatment and insisting on medical certification to justify the type of facility and duration of care. This includes developing profiles of hospital and specialist practice and engaging in dialogue with providers around practice variation and outlier status.

Medibank and Bupa entered into agreements with the Australian Society of Plastic Surgeons in early 2015 which required ASPS members to certify that there was a medical basis for potentially cosmetic surgery if the insurer was to be asked to fund the treatment. This agreement moved the onus for demonstrating appropriateness of funding potentially cosmetic procedures from the hospital to the surgeon.

### 8.5.5 Uneven Risk Distribution

A small proportion of insured members drive the bulk of cost growth and utilisation. Just 2.2% of Medibank members consume 35% of the insurer's hospital and medical expenditure with 70% of this group having an underlying chronic disease.

Insurers are increasingly providing services that assist in keeping their members out of hospital. These investments include: remote monitoring, telehealth solutions, primary care coordination and care navigation programmes. Several insurers have chronic disease manage-

ment programmes that are delivered as joint public-private initiatives in collaboration with State Health Departments.

The preclusion from funding community-based services that are eligible for Medicare benefits limits the extent to which private health insurers can offer a coordinated approach to reducing hospital admissions.

### 8.5.6 Disparate Funding Streams

The various funding streams and purchasing frameworks encourage hospitals to focus on income maximisation. Funding for the acute surgical episode is primarily via activity-based funding through DRG payments. Rehabilitation is commonly funded on a per diem basis. This provides an incentive for hospitals to facilitate early discharge and commence early and prolonged rehabilitation. Transfers to rehabilitation following hip or knee replacement run as high as 85% in some private surgical hospitals. There is no incentive to minimise rehabilitation inpatient stay, with some rehabilitation providers averaging 14 or more days stay following a total hip replacement.

The barriers to an insurer funding medical services outside the hospital setting encourages patients to stay in hospital for their rehabilitation and often prolongs their acute stay.

Services that can be provided in a doctor's rooms, such as excision of skin lesions are often performed in a hospital, as the insurer is able to meet the hospital costs and contribute to the specialist's fee. When the same procedure is performed in the doctor's rooms the only funding available is Medicare's contribution, often leaving the patient with a substantial out-of-pocket cost.

### 8.5.7 Risk Equalisation and Reduced Incentive for Prevention

A small proportion of members account for the majority of an insurer's benefit outlays. The current the risk equalisation formula relies on calculations undertaken after an insurer has incurred the cost of treatment. This results in any savings an insurer may achieve in preventing a hospital admission being shared across all insurers. This reduces the insurer's incentive to engage in health maintenance programmes.

Some [European insurers] other jurisdictions take an alternate approach to risk equalisation. They calculate the health risk of each member at the beginning of the year and distribute the risk pool according to the insurer's assessed member health risk. That way any reduction in the predicted risk reverts directly to the insurer who has been able to reduce their member's health expenditure.

There are also incentives on the health insurer to classify expenses as "benefit outlays", as opposed to "management expenses", thereby maximising the costs that can be attributed to a member and therefore eligible for risk equalisation.

### 8.5.8 Significant Capital Investment by Private Hospitals

Several private hospital groups have indicated that they have aggressive capital investment plans. Healthscope plan to add 1000 new beds over the next 5 years—a 20% increase on their current bed numbers [7].

### 8.5.9 Increased Supply of Medical Graduates

The increase in medical graduates as a consequence of the higher number of funded medical student places in Australian universities is now flowing into a significant increase in newly qualified medical specialists. With the relative saturation of public hospital specialist positions, it is anticipated that these newly graduated specialists will look for work in the private sector, generating additional demand for private medical and surgical admissions.

### 8.5.10 Shift from Passive Payer to Active Funder

Health insurers have traditionally been focused on maximising their margin through creating barriers to utilisation, negotiating contracts with minimised price indexation and reducing management expenses.

Insurers are increasingly focused on quality- and value-based purchasing. This focus on quality has been augmented by the work of the Australian Commission on Safety and Quality in Healthcare, particularly in the promotion of National Standards and more recently their work on defining Hospital Acquired Complications.

Quality initiatives that various health insurers have invested in include:

- Requiring contracted providers to comply with the National Standards
- Having contracted hospitals report any Sentinel Events
- Requiring hospitals to carry the costs associated with Hospital Acquired Complications
- Benchmarking hospital performance against national performance and that of their peers
- Encouraging standardised reporting of patient experience
- Collecting Patient Reported Outcome Measurement
- Requiring surgeons to certify the medical basis for potentially cosmetic surgery

Health insurance funds are increasingly advocating on behalf of their members, particularly in areas such as specialist fees and hospital billing practices. Using their extensive industry knowledge created from claim-related data, funds are able to engage with hospitals, specialists and industry bodies to highlight abnormal practice and increase accountability.

### 8.5.11 Lapse Rates and Aggregators

An insurer's most profitable members are those who maintain their membership for a number of years without raising a claim. Surgery is an intermittent event, so in pricing a product, the actuaries build in assumptions about the proportion of members who will make a claim each year. Members who repeatedly change funds increase an insurer's acquisition costs and erode profitability. The insurer ends up paying out on claims without a prior period of non-claiming membership.

With portability, the 12-month waiting period for pre-existing conditions does not protect the insurer from the costs associated with churn.

The recent introduction of aggregators into the Australian private health insurance market appears to be encouraging increased churn amongst members. Aggregators provide a single platform where people can compare various products and the aggregator will promote the product that they believe best meets the person's need. Health insurers [will] place selected [ive] products with the aggregator in an attempt to gain market share. Aggregators are funded on the basis of policies sold, retaining a percentage of sales. This funding model creates an incentive for the aggregator to encourage recurrent movement between health funds.

### 8.5.12 Financial Pressures and Downgrading

In tight economic times, people tend to purchase low cost hospital products to avoid the Medicare Levy Surcharge and avoid the Lifetime Health Cover loading. These products come with a range of exclusions or restrictions and so may not meet the member's health needs. These members tend to upgrade to a more inclusive product for a specific procedure and then downgrade to a cheaper product. This movement between products again significantly erodes the insurer's margins.

### 8.5.13 MBS Item List

There are considerable delays in new procedures being added to the MBS list and even longer delays in having older, less effective procedures

removed from the schedule. While an item is listed on the MBS schedule the insurer has limited practical ability to exclude or restrict that procedure from a particular hospital product.

The majority of MBS item numbers do not have restrictions or indications. This causes contention between surgeons, insurers and the MBS scheme, particularly for items that are potentially cosmetic in nature. Many of these items lack a descriptor that defines when the item would be indicated for medical reasons.

### 8.5.14 Prosthesis Pricing

Because the insurer is required to pay the minimum benefit listed in the Prosthesis List, the insurer is unable to negotiate discounts with the prosthesis supplier. This often leaves the private health insurer paying a significant premium over the prices a hospital may be able to negotiate with the supplier. It also encourages prosthesis suppliers to offer hospitals significant discounts, allowing the hospital to retain the gap between the price of the prosthesis and the amount the insurer is required to pay the hospital.

### 8.5.15 Public Hospitals

Public hospitals have significantly increased their identification and claiming rates of patient who have private health insurance. Some estimates suggest that public hospitals may still only be identifying half of all potential private patients. This creates a significant potential liability on the health insurer, particularly when the public hospitals have up to 2 years to lodge a claim.

While the rates that insurers pay the public hospitals are significantly lower than contracted private hospitals, it is unclear what advantage there is to the member or the insurer when a member declares their private health insurance status when being admitted to a public hospital. While the practice contributes to the revenue of public hospitals, it also puts significant pressure on the affordability of private health insurance.

## 8.6 Reflections

- Private hospitals now account for a third of all acute beds in Australia.
- Private hospital discharges are underrepresented in medical conditions, cancer treatment and obstetrics and over-represented in elective surgery and dental procedures.
- Groups are increasing their share of the private hospital market. The two largest groups are publicly listed companies.
- Private hospitals are expanding in anticipation of increased demand from an ageing population and increasing number of private surgeons.
- Private health insurance is highly regulated, with control on both product design and pricing frameworks.
- There are a range of incentives in place which encourage Australian residents to take out private health insurance.
- These incentives have maintained overall health insurance participation rates at around 55%, although hospital treatment participation rates have slowly fallen to 45%.
- Insurance products focus on hospital treatment and general (or ancillary) treatment.
- Resident private health insurance products are precluded from contributing to out-of-hospital services that are funded by Medicare. This creates a discontinuity in health service delivery.
- Private health insurance is challenged by increasing costs and rising demand in the context of restrained price increases and constrained ability to encourage substitution of care.
- Insurers are responding to these challenges by selective contracting, focusing on quality and constraining demand through alignment with evidence-based practice.

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# Health Disaster Planning

9

Andrew Robertson

**Learning Objectives**
Readers of this chapter will gain an understanding of:

- The definitions, terminology and key principles that underpin disaster management.
- Legal and ethical principles utilised in health disaster planning.
- Organisation of state and national emergency management response.
- The role of health agencies in prevention of and preparedness for a disaster.
- Coordination and communication of a disaster response in a health setting.
- The challenges of a health disaster response at a state and health facility level.
- Special considerations for business continuity and recovery after a major incident.

## 9.1 Introduction

### 9.1.1 Definition

There are many definitions used to describe disasters and these usually reflect the different operational agendas of the agencies involved. At a fundamental health service and hospital level, a disaster is less about the type of event or even the numbers of casualties involved, but is more focused on where the event occurs, the health resources available and their capacity to respond. In essence, a disaster occurs when the health service requirements overwhelm the available health resources at that point of time [1]. A bus crash that occurred near the small town of Manjimup in 2009 was a disaster due to the minimal health and other resources available; the same crash in Perth would have taxed but not overwhelmed the local emergency response and trauma facilities.

### 9.1.2 Terminology

Disaster management is often known as emergency management and these terms are frequently used interchangeably. Disasters are also often broken into various subcategories, such as natural, manmade, technological or transport disasters. These subdivisions are arbitrary and, while they may be useful for research purposes, the principles for the management of the various disasters do not and should not significantly change [2]. For example, should a bioterrorism attack with anthrax be defined as natural or manmade, and what impact, if any, would this definition have on health services to be provided?

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E. Loh et al. (eds.), *Textbook of Medical Administration and Leadership*,
https://doi.org/10.1007/978-981-10-5454-9_9

Disaster medicine, in its broadest definition, involves the delivery of health care, often under very adverse conditions, with limited resources and frequently with substantial ongoing risks to patients and responding health staff. It is primarily a mix of emergency and public health medicine, but also includes elements of trauma care, surgery, aeromedical evacuation, occupational health, environmental health, health care management, rehabilitation medicine and mental health [2].

### 9.1.3 Principles

Disaster management systems are based on an identified set of principles. In the Australian context, the key principles are:

- Graduated response or subsidiarity—The response should be provided at the lowest and most local level available, and should only be escalated when resources are not available.
- The all hazards approach—As part of policy and planning, one set of management arrangements should cover all hazards.
- Integrated response—Any response to a significant disaster will require assistance from, communication with and coordination of a range of government and non-government agencies.
- Comprehensive response—All agencies need to be addressing prevention, preparedness, response and recovery (PPRR) as part of their planning.
- Resilience—Ongoing effective prevention, preparedness and response requires the community to take a role in preparing themselves for any likely disaster [3].

## 9.2 Health Planning

To effectively plan for a disaster involving their health area or hospital, the medical administrator needs to have an understanding of a range of factors that will be incorporated in the planning process.

### 9.2.1 Legal and Ethical Framework

In all jurisdictions, there is an Emergency Management Act of some form, which dictates the roles and responsibilities of the local Department of Health and other response agencies. For example, in Western Australia (WA), the WA Department of Health has responsibilities under the *Emergency Management Act 2005* and *Emergency Management Regulations 2006*. These include responsibilities for coordination as a hazard management agency for human epidemic and heatwaves, and health support to other agencies for other disasters.

While the states and territories have responsibility for disaster response within their own borders, the Australian Government has responsibility for coordinating responses to disasters that require interstate assistance, are occurring overseas or that require specific assistance, such as Australian Defence Force (ADF) aeromedical assets. This is coordinated by the Emergency Management Agency (EMA) within the Commonwealth Department of Home Affairs. They are also responsible for coordination of a number of national plans, including the Australian Government Disaster Response Plan (COMDISPLAN), the National Response Plan for Mass Casualty Incidents involving Australians Overseas (OSMASSCASPLAN) and the Australian Government Overseas Disaster Plan (AUSASSISTPLAN) [3]. AUSASSISTPLAN was activated in the first 6 months of 2015 to provide assistance for Cyclone Pam in Vanuatu and the Nepal earthquake.

From an ethical standpoint, disaster management is fraught with a range of ethical issues. As a consequence, most non-government and government agencies involved in this work have Codes of Conduct that people are expected to adhere to. The key ethical issues to consider are:

- **Utilitarianism**. Perhaps the greatest challenge is how to ethically triage and ration resources to provide the greatest benefit to the greatest number of people, called utilitarianism. This is derived from equality of personal importance and utility, but does not dictate equal treatment for all. The practicable application is that, in a

limited resource environment, the sickest salvageable patients are the top priority, followed by patients with lesser injuries and the walking wounded. In some circumstances, this may mean that patients unlikely to survive are made comfortable and only reassessed if more resources become available, an expectant category. While this may appear harsh, a decision to concentrate a significant proportion of the personnel and medical resources on one or two potentially unsalvageable patients, in a resource stretched environment, will be at the expense of other patients who could survive and recover. There are limits, however, and special care needs to be taken that decisions are not taken on ethnic, cultural or physical grounds, where more importance is given to an able-bodied person or a particular group [4]. The situation in Florida Hospital Memorial Medical Center after Hurricane Katrina, where a number of patients died because of decisions to only give palliation under the circumstances, highlight the ethical challenges and possible legal ramifications of such decisions [5].

- **Distributing scarce resources**. In considering distribution, justice should come into play, with resource distribution being relatively fair, equitable and according to relative need [6]. Justice has its limits in this setting, however, and egalitarian arguments, that everybody should be treated the same, are not as relevant in a resource strapped environment where every decision to treat or provide resources may have an adverse impact on others [4].
- **Principle of Equal Chances—First come, first served**. This is based on the premise that all casualties should be treated equally or, at least, first to arrive should be the first looked at. In a disaster situation, this concept may be fatally flawed, as generally the first patients to arrive are the minimally injured and emotionally stressed, who are more capable of getting to the hospital independently. If all the resources are concentrated on this lower priority group, it will be at the expense of the more seriously injured, which will bring it into direct conflict with utilitarian principles [7].

### 9.2.2 State and National Emergency Management Organisations

Each state and territory has an emergency management section within its Department of Health. Depending on the jurisdiction, these areas usually sit within their public health areas and are responsible to their Chief Health Officers, although there may be local variations. These units broadly have responsibility for statewide health preparedness, coordination, communication and response to a disaster.

These health agencies interact closely with other emergency response agencies, particularly police, fire, emergency services and welfare agencies, and will support these and other agencies, as required, in any disaster response. Health agencies usually have representation on the State Emergency Management Committee and any subcommittees that support it. Support includes involvement in multi-agency exercises, training and policy development.

Health agencies have a range of disaster plans that are either hazard specific, such as human epidemic, part of an overarching state plan or as a specific health support plan. These plans will generally outline the roles of health related subelements within the plan, such as ambulance services, metropolitan hospitals, country hospitals and mental health services. They may include support services, such as pathology and laboratory services; community health services, local government and private hospitals [8].

The Australian Government's role in emergency management is to build and promote disaster resilience, coordinate national strategic emergency management policy, provide support for emergency risk assessment and mitigation measures, coordinate and provide operational support for emergency response to the states and territories where their local resources are overwhelmed, and provide financial assistance for mitigation, risk assessment and relief and recovery expenditure [3]. This work is largely done in conjunction with the states, territories and local governments. The Australian Government also has specific responsibilities in relation to national security and defence, border control, aviation

and maritime transport, quarantine, enforcement of Australian Government legislation, the safety and welfare of Australians overseas, international relations, and assistance to other countries [3].

Local governments have responsibilities, in partnership with respective state and territory governments, to build and promote disaster resilience, promote community interests in jurisdictional arrangements and to prepare for disasters in their local areas, including public information and warnings, as required [3].

## 9.3 Comprehensive Emergency Management

### 9.3.1 Prevention

Prevention measures are designed to remove or mitigate the impact of a variety of hazards, and increase the community resilience to their impact. The Australian Government has a role in prevention, primarily through border controls of biological agents and hazardous materials, quarantine of suspected infected people and funding of nation-wide mitigation projects. State and territory governments have the primary operational role in prevention, particularly in areas such as bushfire and flood mitigation, land-use planning and building codes, and critical infrastructure protection [3]. Health agencies at a state or territory level generally do not have significant additional prevention roles, beyond that of normal operations of statewide environmental health, such as food, water, hazardous materials and radiation safety, and communicable disease control services.

### 9.3.2 Preparedness

#### 9.3.2.1 Surveillance

Surveillance is designed to identify the baseline number of particular types of infectious disease cases within that state or territory and to provide early warning of outbreaks or epidemics of infectious diseases above that baseline. The baseline may be zero for diseases never seen, such as smallpox or plague, or a more substantial figure, as seen with chlamydia and other sexually transmitted illnesses.

Surveillance may be passive, with routine collection of notifiable disease data from medical providers and pathology laboratories; active, with contact tracing and active testing for a particular agent in at-risk populations during an outbreak, such as measles; or syndromic, where there is regular reporting of a cluster of symptoms that may be closely related to a disease or infection, such as heat-related conditions or influenza [9]. Syndromic surveillance is often labour intensive and is generally not used routinely, but has been used in a number of major events in Australia, including the Sydney Olympic Games in 2000 and the Perth Commonwealth Heads of Government Meeting in 2011.

In Australia, jurisdictional Departments of Health have a Communicable Disease Control Directorate or unit, who have statewide responsibility for surveillance, including collection, storing, analysing, reporting and providing advice on communicable diseases of interest. Nationally, these units are connected through the Communicable Disease Network of Australia (CDNA), a standing committee of the Australian Health Protection Principal Committee.

#### 9.3.2.2 Hospital Preparedness

All hospitals have a responsibility to be prepared for an external disaster, known as a Code Brown event, and an internal disaster, known as a Code Yellow event. These responsibilities extend to a frequently revised and well-exercised disaster plan; a dedicated hospital emergency operations centre; clear coordination and communication arrangements with the jurisdictional health incident coordination centre; concise guidance on operational issues, such as clearing the Emergency Department and decanting patients, and a regular staff training and exercise programme, including field and desktop exercises, such as the EmergoTrain™ exercises [10].

#### 9.3.2.3 Personal Protective Equipment

Personal protective equipment (PPE) includes different types of clothing, masks and other devices

designed to protect health staff in their response to a mass casualty incident [11]. This may be as simple as protective shoes, gowns, gloves and masks to allow a hospital team to operate safely at a disaster site, through to sophisticated coverings, overshoes, face-shields and US National Institute for Occupational Safety and Health (NIOSH) N95 rated masks to allow health staff to manage highly dangerous infectious disease outbreaks, such as Ebolavirus Disease (EVD), or contaminated patients after a chemical, biological, or radiological (CBR) incident. Hospitals need to be prepared for a range of scenarios. Most major hospitals should have, as a minimum, emergency protective gear to allow a hospital team to respond to a disaster site; protective gear to allow for the handling and management of a highly pathogenic infectious disease, including N95 masks, face shields, and appropriate gloves, footwear and gowns; and appropriate gear to deal with a CBR incident, including chemically resistant gowns and gloves, and powered air-purifying respirators (PAPR).

#### 9.3.2.4 Surge Capacity

Surge capacity is the measure of the ability of the health care system to respond to a sudden influx of patients with the given resources. This concept has developed over the last 10 years through responses to various disasters and now is an important part of health disaster planning [12].

In an urban mass trauma event, the majority of casualties are likely to arrive at a hospital in the first 60–90 min [13]. Health systems need to be capable of meeting this increased demand, including for specialised surgery, and the requirements that go with it. This will involve an integrated effort between clinical services, logistics, human resource management and facility staff to ensure that these requirements can be met [12].

Some of the ways of increasing hospital capacity include:

- Cancellation of elective surgery and decanting of select patients to other hospitals or community care [14].
- Creating additional temporary hospital facilities within hospitals, such as ICU beds, by utilising caches of medical equipment and supplies, and repurposing spaces, such as theatre recovery rooms.
- Using diagnostic and treatment capacity in alternative health facilities, such as private hospitals and day surgical units, to treat minimally injured and decanted patients from the public hospital.
- Using other health providers, such as general practitioners and nurse practitioners, to manage the minimally injured and patients decanted from the hospital [12].
- Modifying models of care, such as shift lengths, and extending scope of practice for other health practitioners, including nurses, allied health staff and medical students [15].

Medical administrators should have a good understanding of the hospital disaster response plan, including areas likely to be utilised for additional ICU or trauma beds, additional medical equipment and consumables caches available at a hospital or jurisdictional level, and any decanting plans.

#### 9.3.2.5 Communications

Communications systems in hospitals, including switchboards, are vulnerable, particularly in a disaster, to overloading or physical damage. Similarly, mobile phones and mobile data may not be available, due to the overloading of the mobile towers in the vicinity of the incident or near the hospital. This may be further exacerbated by power outages. Major hospitals should be connected via a dedicated or shared radio network to the jurisdictional health incident coordination centre, other hospitals, the ambulance service and any deployed teams. In more remote areas, this should be supplemented with satellite phones [16]. Internal health intranets and the internet may also continue to operate when the telephones are unavailable. To that end, the use of an electronic web-based Critical Incident Management System (CIMS) should be considered for their utility of sharing current information, developing situational awareness, documenting emerging issues and decisions made, and enabling tasking requirements between health services, hospitals

and external agencies, such as local police, fire and emergency services departments.

#### 9.3.2.6 Training

Training should be both comprehensive and targeted. At a basic level, all health workers should have some training on disaster principles, response arrangements and their expected role. As the likelihood of their involvement increases, such as with emergency department (ED) staff, the staff should be further targeted for training that addresses the full gamut of disaster preparedness and response arrangements, including the role of leading players in health disaster management. This may involve more operationally focused courses for hospital teams, such as the Major Incident Medical Management Support (MIMMS)™ course. Finally, there will be a subset of hospital, health service and health department staff who have primary roles in emergency management and will benefit from further training and courses in specific disaster-related topics, including health planning, exercise management, incident control systems and incident control centre operations [17].

### 9.3.3 Response

#### 9.3.3.1 Coordination

Coordination of the health disaster response will depend on the location of the disaster and the scale of its impact. In regional and remote areas, the local hospital or region will manage the disaster in the first instance. Once the disaster overwhelms or threatens to overwhelm resources, the State or Territory disaster response will be activated. In the health arena, the jurisdictional Health Incident Coordination Centre will be activated and will assume responsibility for managing the health response to the disaster. The Health Incident Coordination Centre will utilise an incident command system (ICS), such as the Australasian Inter-service Incident Management System (AIIMS), which includes sections dedicated to operations, planning, logistics and administration [16]. The State Health Coordinator, however named, will usually have the delegations to make decisions on behalf of the jurisdictional health system, and can make decisions on the use, mobilisation and deployment of health resources. The State Health Coordinator will liaise closely with other emergency management agencies in accordance with the local emergency management plan.

#### 9.3.3.2 Triage

Triage, in the disaster scenario, is concerned with determining how best to prioritise limited resources to produce optimal patient outcomes. From the French word “trier” (meaning to sort) and dating back to the Napoleonic Wars, triage is concerned with rapidly evaluating patients to determine their most appropriate level of patient care in a mass casualty scenario [18].

While there are a range of different triage systems utilised around the world, the fundamentals are similar. The system is designed to prioritise the affected casualties into four main categories:

- Minimal or minor cases. These are usually the walking wound with minor injuries, who will generally make up the majority of casualties. They are often coded as Priority 3 or Green patients.
- Delayed Cases. These are patients, usually non-ambulatory, who require medical intervention, but have no immediate threat to life or limb. They may be coded as Priority 2 or Orange patients.
- Immediate Cases. These are patient with life-threatening illnesses who require immediate medical attention. They may be referred to as Priority 1 or Red patients.
- Deceased patients. The deceased patients are often coded as black patients. In some scenarios, where resources are limited and patients are not expected to survive due to the scale and type of their injuries, the patient may be classified as “expectant” and provided only with supportive therapy (sometimes depicted by a white label) [18].

Triage is ongoing process, with all patients been subject to re-triage and recategorisation as conditions deteriorate or improve and more

resources become available. Frontline staff are primarily trained in disaster triage through the MIMMS™ course in Australia. The MIMMS™ triage uses a triage sieve and sort methodology. There may be additional triage considerations for different populations, including paediatric, burns and chemically exposed patients [19].

The triage assessment is recorded on a triage tag, which includes basic demographic information on the patient (name, age, gender), as well as their triage category. In Australia, there is general agreement between jurisdictions to use the SMART™ triage card system, which also incorporates a unique barcode that can be incorporated into patient tracking systems.

#### 9.3.3.3 Patient Identification and Tracking

Identifying and tracking patients from the scene back to the hospital is a critical requirement. Usually this is done with triage tags and communication of general numbers by telephone or radio. A number of electronic systems have been trialed in the United States, including electronic triage tags and radiofrequency identification devices [20].

In Australia, the National Critical Care and Trauma Response Centre (NCCTRC) in Darwin have developed a barcode tracking application, called TrackMe, that scans triage bar codes and links them to basic patient and condition information, including triage priority, which is then electronically transmitted to Health Incident Coordination Centres and integrates with the WebEOC™ system. This has already been successfully used to track patients in a number of planned hospital moves in the Gold Coast Hospital, Queensland and Fiona Stanley Hospital, Western Australia.

#### 9.3.3.4 Decontamination

Decontamination is designed to remove the suspected chemical, biological or radiological (CBR) or other hazardous material contaminant from the patient to enable their appropriate treatment and to protect treatment staff from their effects. The sarin attacks in Tokyo in 1995 lead to 13 staff developing signs of organophosphate poisoning because the patients had not been decontaminated and the staff did not have adequate personal protective equipment (PPE). All major hospitals with emergency departments should have a decontamination shower area, which has controlled access for patients, can be utilised regardless of the season, has privacy screens, has arrangements for disposal of liquid and other waste, and provides appropriate PPE for decontamination teams [11]. Many hospitals also have an internal decontamination room and shower area for patients who are discovered to have been contaminated or to be off-gassing, particularly after phosphine exposure.

#### 9.3.3.5 Hospital Response Teams

The ambulance services have a key role in the first response to disasters, including the triage, rapid clinical review, life-saving therapeutic interventions and communication of critical medical information from the scene. The information from the ambulance health commander on scene is critical in ensuring that hospitals have a clear view of the scope, type and number of casualties to expect [21].

In some circumstances, when the ambulance services are overwhelmed, there will be a need to deploy small teams of doctors and nurses, usually from the ED of a nearby major hospital, to the vicinity of the disaster to establish a casualty clearing station, where patients can be further triaged, stabilised and prepared for transport to the appropriate hospital. This can also assist the ambulance service to free up ambulances to transport the priority patients to the hospitals. The medical commander may take over the site health commander role, with responsibility of coordination the medical teams, prioritising patients for transport, providing information back to the State Health Coordinator and receiving hospitals, and coordinating requests for additional personnel or other resources for the site. These teams should be suitable trained, usually through the MIMMS or similar courses; have appropriate PPE to enter the scene, and to be self-sustainable in regard to medical equipment and consumables.

#### 9.3.3.6 National Teams

The Australian Medical Assistance Teams (AUSMATs) are national disaster medical assistance teams, with self-sustaining field deployment capability, for deployment to domestic, national and/or international responses. They are sourced from state or territory health staff, who provide the specialist health personnel as the situation demands. These teams were initially developed after the 2004 tsunami in Asia and have been refined and standardised over the last 14 years. There are now over 600 AUSMAT team members across all the jurisdictions and the AUSMATs have been deployed to a range of disasters, including the Java earthquake (2006), Samoan tsunami (2009), Pakistan floods (2010), Christchurch earthquake (2012), Haiyan cyclone (2013), Vanuatu cyclone (2015) and Nepal earthquake (2015). The team members are required to have undertaken specific AUSMAT training, including security and safety training; to be in date for vaccinations, to be medically fit, to be a volunteer to deploy and to be competent in their professional role. The teams are expected to be self-sustainable, with access to caches of both self-sustainability, such as water, food, tentage and utilities, and medical equipment. They may deploy as individuals, as small forward needs assessment teams or as part of a bigger medical treatment team [22].

AUSMATs are enablers under the National Health Emergency Response Arrangements (the NatHealth Arrangements), which outline the strategic authorities, responsibilities, arrangements and the mechanisms that enable a coordinated national health sector response to emergencies of national consequence. The NatHealth Arrangements may be utilised in response to a domestic or international event that impact or threatens to impact two or more states and/or territories and across jurisdictional borders; has the potential to overwhelm or exhaust a state and/or territory's health assets; and resources; or its scale or complexity warrants a nationally coordinated response. They can also be utilised internationally, under the AUSASSISTPLAN or the OSMASSCASPLAN, and are tasked by EMA at the Australian Government's request [23]. The Australian Health Protection Principal Committee (AHPPC) plays a key strategic role in determining the requirements to meet the task. The National Health Emergency Management Standing Committee, a standing committee of AHPPC, has a key role in developing the policies and guidelines that govern the operations of the AUSMATs, including the development of the AUSMAT manual.

In 2013, the World Health Organisation published the Foreign Medical Team (FMT) guidelines, which are designed to lead to standardisation and ultimately international registration of all FMTs. These guidelines were used successfully in the FMT coordination after the Nepal earthquake in 2015 and have been endorsed by AHPPC [24]. The AUSMAT capability was accredited and registered through this process as an international Emergency Medical Team (EMT) in October 2016. EMT has replaced the former FMT term.

#### 9.3.3.7 Emergency Department Management

In the event of a disaster, the nearest Emergency Department (ED) usually takes the brunt of the casualties, sometimes without warning and not necessarily because it is the most appropriate, but the nearest. As hospitals generally operate with high turnover in their emergency departments, and diversion to other hospitals or ramping of ambulances is not uncommon, hospitals need to react quickly to the changing circumstances.

Most EDs will have some time before the first seriously ill patients arrive, although those less injured fleeing from the scene may arrive earlier. The first step is to clear the ED of as many patients as possible, by discharging them home, transferring to other health facilities or admission to the hospital. A plan for such an evacuation should be developed and exercised prior to any major incident. While this may be daunting with a full ED, it can be carried out successfully, as demonstrated by the hospitals involved in the response to the 2004 Madrid bombing. In Israel, regular ED patients are transferred to predetermined areas, usually acute medicine wards, where they are evaluated for discharge home by

physician teams [25]. While the patients are being cleared, the ED resuscitation area should be prepared for the most critically injured victims, with supplementation of medical equipment, medical consumables and pharmaceuticals to manage the suspected patient load and injury types [25].

Hospital capacity will also need to be expanded rapidly, particularly as routine occupancy rates can be up to 95%. Hospital patients should be evaluated for discharge by health teams, elective surgery cancelled, recovery rooms cleared for possible use as high-dependency units, and intensive care unit (ICU) patients evaluated for possible transfer to other public or private ICU units. The membership of the teams should have been determined prior to any event [25].

Hospitals and health services should also have contingency plans to separate the more minimally injured from the more serious cases. This can be done by establishing a dedicated area in the hospital for such cases, such as an outpatients department, staffed by appropriate health staff, or by redirecting ambulances to secondary hospitals to manage such cases [10].

#### 9.3.3.8 Hospital Management

Hospital management will be focused on preparing the hospital for mass casualties, including utilising surge capacity within the hospital by repurposing various rooms, preparing and rostering staff, expanding morgue capacity and topping up medical consumable and pharmaceutical supplies. Given the impact on families, areas need to be set up to receive and assist family members. If this is done well, as in the 2005 London bombings, the trauma for both family and staff will be reduced [16].

As the disaster may impact on utilities, topping up of fuel supplies for emergency generators and water tanks is also a prudent step. Other steps that should be considered are replenishing any shortfalls in blood supplies; requesting additional medical equipment, such as ventilators and monitors, from disaster medical caches or medical warehouses; and ensuring that there are no problems with service deliveries of critical supplies, such as medical gas, linens, and food, or with clinical and general waste removal [16].

#### 9.3.3.9 Radiology and Laboratory Services

Radiography, including computerized tomography (CT) scanning, is the most common bottleneck in the ED flow, particularly in terrorist bombings and other multiple trauma events. In various bombings, nearly half of the victims received at least one radiographic study [25]. To address these bottlenecks, all radiographs, including CTs, should be prioritised based on their likelihood of changing planned management, with non-critical radiographs, such as foreign bodies and fractures, deferred until radiography access improved. The radiography capacity can be augmented with portable X-rays, either in ED or another part of the hospital, for the more minimally injured, remembering that radiation safety requirements around mobile machines may impact on patient management in the ED. Patient deterioration, either in the radiography suite or the CT scanner, is an important consideration and suitable staff, equipment and processes should be in place to manage any deterioration. Finally, an attending radiologist should be available to immediately read radiographs and CT scans to maximise flow through the ED [25].

Getting timely results from laboratory requests, particularly where they impact on patient care, may also adversely affect patient management, and consideration should be given to prioritising samples to those that will affect treatment and supplementing staff and supplies in these areas to ensure efficient processing of specimens and result reporting [26].

#### 9.3.3.10 Paediatric Patients

Depending on the type and site of the disaster, children may make up a significant part or even majority of the casualties, as was highlighted by the Beslan school siege in Russia. Children are also more vulnerable to infectious diseases and exposure to adverse environments, are usually dependent of family for support, and have special dietary needs, particularly among neonates and young children [27]. Unfortunately, national, state and hospital disaster plans often lack paediatric components [28]. As children are more vulnerable to the hazards of various disasters,

present with different patterns of injury and illness, and have different medical and psychosocial needs from adults, disaster trained paediatric medical and nursing staff are key to any effective disaster response. The paediatric staff needs to be appropriately equipped with medical equipment suitable for use with paediatric patients [28].

Other considerations with paediatric disaster victims are the care of their parents or guardians, who will probably have prioritised the child's care over their own and may need their own assessment and treatment; the management of children whose parents who have died, are hospitalised or unavailable, which may require them to remain in the hospital for longer than clinically indicated while other guardians are found [29]; and, if they come from an impoverished background, may have poor nutritional status, increased exposure to communicable disease, and a low immunisation rate [27].

#### 9.3.3.11 Burns Patients

Burns from bushfires, terrorist attacks or other fires have the potential to overwhelm both the jurisdictional and national capacity for burns beds, depending on the number of patients affected and the occupancy rates of the burns units. Hospitals with burns units should consider their surge plans, including identifying additional wards, equipment and consumables [30]. A national burns plan (AUSBURNSPLAN) and a burns network was developed in Australia after the 2002 Bali bombings to coordinate the national response to an influx of serious burns patients [31].

#### 9.3.3.12 Infection Control, Isolation and Quarantine

While many disasters relate to acute manmade or natural events, such as an earthquake, they may also be due to an epidemic or pandemic. In recent years, the 2009 H1N1 pandemic and the West Africa Ebolavirus Disease epidemic in 2014–2015 have highlighted the challenges of such events. These outbreaks may be natural or related to the intentional release of a biological agent, as seen in the US anthrax attacks in 2001.

Epidemics can occur with a variety of diseases in different settings. Some diseases may be endemic to the area and there may be seasonal variation, such as with influenza, and a baseline needs to be established. Large increases in cases compared to the baseline, cases in lower risk populations and a sustained increase over a longer period are all suggestive of an evolving epidemic. These changes will be picked up by passive and active surveillance, as discussed above [9].

While the core public health response to epidemics is early detection, surveillance, contact tracing and use of vaccines, prophylaxis and therapeutic options, where available, health services and hospitals need to be prepared to manage inpatients and ensure decrease of spread in the community [9].

Infection control involves the use of various measures to prevent the spread of infectious agents within a hospital setting. This is routinely performed to prevent resistant strains spreading in the hospital and into the community, through standard precautions, such as gloves, gowns and masks, where required, but may need to be enhanced where there are increased infectious risks from contact with the patient (contact precautions, from respiratory droplets from the patient (droplet precautions) or airborne spread (airborne precautions) [9]. The pathogenicity of the organism, and the ability to protect with vaccines or treat the resultant disease, should also be factored into infection control decisions. The 2014 Ebolavirus disease outbreak focused many Australian hospitals on preparing to manage such a highly dangerous pathogen.

Under Public Health law in most jurisdictions, there is the ability for public health authorities to enforce isolation of patients infected with the disease of concern, either in a hospital, at home or another facility depending on their medical condition. Similarly, the public health powers exist to quarantine those who have been exposed, and may or may not develop the disease, from the general community [9]. These powers are generally used sparingly, due to challenges with enforcement, human rights and other options to resolve the situation, but remain available for serious outbreaks.

#### 9.3.3.13 Mental Health

Mental health is a key concern after disasters and the ability of a jurisdictional mental health service, often already stretched, to handle this need will be challenged. Disaster relief and hospital responders should have a basic understanding of the likely psychosocial needs of the disaster victims, including the likely acute stress reactions [32]. Psychological first aid may be required and early involvement by psychiatrists and other mental health professionals may enable triage of those likely to be at risk for more severe mental illness [33]. This will impact on both adults and children, with children particularly prone to a wide range of psychological responses, with depression, behavioural disturbances and phobias being common [29]. These events may also be very traumatic for hospital and emergency response staff, and mental health plans should cover support for staff following the incident.

#### 9.3.3.14 Mass Fatalities

Jurisdictions and hospitals should have plans for dealing with mass fatalities. For the general community, the number of dead is seen to reflect the true scale of the disaster and the management of the deceased will come under greater scrutiny, as the society endeavours to ensure that these people are treated appropriately in death. This involves the location, recovery, storage, identification and, ultimately, final disposition of these bodies. Depending on the type of disaster, the amount of damage caused, and the involvement or not of a criminal element, such as a terrorist attack, will dictate the degree of forensic investigation required [34].

In a mass fatality incident, victim identification will become a key focus, particularly where bodies have been badly damaged in the incident. Identification is required for certification of death, which has significant legal ramifications for next of kin on a range of issues from life insurance to child guardianship [33]. Families need to be kept informed of these processes and why they are required.

With multiple fatalities, storage of the victims may become an issue [16]. Mass fatality plans need to address arrangements for storage of the deceased beyond the normal mortuary capacity, which may be done in refrigerated warehouses or containers, or portable facilities, and enhanced facilities to allow forensic staff to carry out identification and post-mortem procedures. Any attempts to use mass graves, particularly without suitable identification of the bodies, should be strongly resisted, due to long-term complex legal, societal and economic issues of such a move [34].

Once the body is identified, and all forensic examinations are complete, there may be a requirement to work with families and funeral home operators to ensure that burial or cremation is expedited. Cemeteries and crematoria can expedite the process if and when required. With certain communicable diseases, there may be requirements to either not embalm, for example, with the plague, or cremate, the body, for example, with anthrax, which will need be explained to the family [34].

#### 9.3.3.15 Other Issues: Volunteers, Public Communication, Security

Following a disaster, many health providers are keen to assist and look for effective ways to help. Within the system, these staff can be utilised through good personnel management by planning the anticipated staffing requirements for the next 24–48 h and programming those offering to come back from leave or days off to relieve those who are currently in the frontline. Other health professionals are more problematic and spontaneous volunteerism needs to be appropriately managed to ensure this does not overly complicate staffing [2].

The same holds true for government or non-government organisation (NGO) medical assistance teams as well. If health providers are interested in disaster response, they can register with AUSMAT or other disaster response NGOs, who will ensure the volunteers are prepared for deployment, including vaccinations, credentialing and training, to enable rapid deployment. Previous disaster-relief experience is beneficial in applying for such positions.

Public messaging is also important. In a national disaster, there are well-established mechanisms through AHPPC to share key information, frequently asked questions and public messages across jurisdictions. Similarly, in response to a disaster, jurisdictions will develop common public messages and frequently asked questions through their established State public information coordination arrangements [3]. This messaging is critical for hospitals, as it can be utilised to pass essential information to the community, reassure the public about various aspects of the response, request non-urgent patients to not attend the hospital or provide contact numbers for worried family and friends to reduce the load on hospital switchboards.

In the event of a disaster, plans need to address securing the facility, directing traffic, protecting staff and patients, and managing personal effects. In addition to media, hospitals will need to manage family and friends of the injured, volunteers, and senior officials and politicians, who wish to visit the hospital. As security is often minimal at most Australian hospitals, even to deal with routine threats of violence within the hospital [35], security staff may need to be supplemented by other hospital staff for some duties, such as traffic direction, or by contracted security staff or police if security needs to be bolstered, noting that police may be heavily involved in the disaster response itself [16]. The latter will need to be facilitated through State or Territory emergency management arrangements. The facility must also have a plan to lock-down the total facility, with limited supervised access, if required for contaminated patients or an active shooter on site [16]. In terrorism or major criminal incidents, there is also the possibility that the incident could be brought back to the hospital and screening for weapons may be required.

### 9.3.4 Recovery

Recovery arrangements are a core part of Australia's emergency management arrangements, occur at all levels of government and are well outlined in jurisdictional plans. From a health perspective, the focus is on the physical and mental health recovery of the patients, health support to local evacuation or relief centres, and public health and environmental health support to affected communities [3]. The latter is focused on preventing disease outbreaks by ensuring food and water safety, appropriate sanitation, vector and vermin control, and management of hazardous materials and other waste [32]. In the Maldives, Australian public health teams assisted the Maldivian Government to implement shelter, food security, water and sanitation, and waste management strategies post tsunami [36].

## 9.4 Other Issues

### 9.4.1 Media Management

The media can be expected to arrive or contact health services and hospitals as soon as a disaster strikes. A communication plan must be in place for such an eventuality, which will generally identify a senior spokesperson to talk to the media in the first instance. In the immediate stage, media should be strongly discouraged from attending hospitals and should be strictly controlled if they do [16]. Initial media messages will concentrate on what has happened and what has been done, and patient conditions should only be discussed in the most general of terms due to medical confidentiality and privacy concerns. This should be done without identifying patient details or specific details of injuries.

### 9.4.2 Special Considerations: Chemical, Biological or Radiological

In any disaster, there may be consideration of special conditions that occur due to the accidental or intentional release of a chemical, biological or radiological agent. The most likely of these is the contamination of a patient with chemicals from a hazardous material spill, but intentional incidents, such as the 1995 Tokyo sarin attack and the 2001 anthrax release, have occurred.

The primary concerns are the protection of ED and hospital staff, the decontamination of patients and the treatment of their illness. Unprotected staff may become secondary victims of contaminated patients. Most patients exposed to chemical or radiological agents will be decontaminated at the scene, but there may be the requirement for decontamination of those who avoided or were only partially decontaminated on site. Hospitals need to have decontamination facilities, PPE for staff that they are comfortable and have trained in, and protocols for the receipt, management and treatment of these patients. To assist and provide guidance, the Australia Government has developed the Domestic Health Response Plan for Chemical, Biological, Radiological or Nuclear Incidents of National Consequence (2014). The National Medical Stockpile was also developed in 2002, which can provide a range of therapeutic agents, PPE and medical equipment, in the event of a CBR or conventional terrorist attack [10].

### 9.4.3 Other Events: Internal Failures, Contamination and Shortages

Hospitals and health services should also be prepared for internal failures, contamination of therapeutic supplies and shortages of key drugs. Over the last 10 years, Australia has seen contamination of propofol supplies, shortages of heparin and multiple outages of utilities, including natural gas supplies and electricity grids. Hospitals need to work closely with jurisdictional health disaster agencies to ensure that these events are appropriately identified, managed and solutions found to ensure continued patient care. Given their nature, contamination and shortage incidents often become national incidents for discussion and coordination at the AHPPC.

### 9.4.4 Business Continuity Planning

To ensure that the hospital organisation is resilient and able to manage both external disasters and internal failures, there needs to be a commitment at the senior executive and hospital board level to both disaster planning and business continuity planning (BCP). Such commitment should include policy development, resource allocation, risk evaluation and management, training and exercising. Risk management needs to be robust, objective and, optimally, to have risk assessments and treatments built into operational plans and processes [37].

While disaster preparedness and response is generally well understood, business continuity management and planning is less well prepared for. Business continuity management had its origins in information technology disaster recovery, where back-up of critical data became a priority. The concept has now broadened to include continuity across the whole organisation, from utilities to staff to communications. All hospitals now need to have analysed their critical areas and developed plans and procedures to clearly outline how these critical areas will continue function after an internal failure, major damage to the facility or an external disaster that impacts the hospital [37].

## 9.5 Aftermath

This chapter is designed to give medical administrators an introduction to disaster medicine in a relatively short chapter. By its nature, it is not comprehensive and there are many disaster medicine texts and journals if further information is required (see below). It, however, should encourage medical administrators to consider the topic, identify the various pitfalls they would like to avoid and assist with the disaster planning, which is a critical part of hospital and health care operations.

## 9.6 Reflections

- A disaster occurs when the health service requirements overwhelm the available health resources at that point of time.
- The key principles are:

  - Graduated response—The response should be provided at the lowest and most local level available, and should only be escalated when resources are not available.
  - The all hazards approach—As part of policy and planning, one set of management arrangements should cover all hazards.
  - Integrated response—Any response to a significant disaster will require assistance from, communication with and coordination of a range of government and non-government agencies.
  - Comprehensive response—All agencies need to be addressing prevention, preparedness, response and recovery (PPRR) as part of their planning.
  - Resilience—Ongoing effective prevention, preparedness and response requires the community to take a role in preparing themselves for any likely disaster [3].
- Health planning requires a good understanding of:
  - The ethical and legal requirements and the jurisdictional and national emergency management requirements.
  - The hospital and health services requirements under each component of the PPRR.
  - The particular planning requirements around surveillance, staff protection, equipment caches, communications redundancy and training in the preparedness phase.
  - The rapid transition required in the response phase to effectively manage mass casualties, including deploying medical teams, implementing triage and surge management procedures, managing patient flow and addressing potential bottlenecks and vulnerable groups in the process.
  - The necessary next steps in the recovery phase, particularly in the public health and mental health areas.
  - The requirement to keep the hospital or health service operational through robust business continuity plans that can manage the full range of risks from internal utility failure to contaminated patients from a chemical or radiological attack.

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# Population and Public Health

# 10

Alastair P. Mah

**Learning Objectives**
Readers of this chapter will:

- Develop a brief understanding of population and public health.
- Consider why it is important for medical managers to have an understanding of the field of public health.
- Appreciate that a medical manager's work may require consideration of its public health impact.
- Recognise a range of traditional and more recent public health initiatives in Australia, including targeting of communicable diseases, as well as tobacco, alcohol and drugs.
- Gain an understanding of particular population health issues, including chronic disease health management, regional and rural health, and Indigenous health.

## 10.1 Introduction

There has been a renewal of interest in public health since the turn of the century, in disease prevention, communicable diseases, health protection and health promotions. This is partly due to the realisation that continued investment in acute care brings diminishing returns and is simply not sustainable, and an increased focus on upstream interventions is required to keep the population healthier. It is also due to recognition that problems in the last century tackled by public health actions have provided ongoing benefits.

The most recently published *Public health expenditure in Australia* report from the Australian Institute of Health and Welfare in 2011 suggested that Australia spends 2.1% of the total health expenditure on public health [1]. Questions will arise as to whether this is sufficient in the longer term.

The role of public health is to contribute to the health of the public through assessment of health and health needs, policy formulation, and assurance of the availability of services. Public health practitioners are constantly required to relearn old ways of tackling newer patterns of diseases, in order to face traditional and newer challenges that threaten the public's health.

While they are not trained as public health physicians in the strictest sense, medical managers will often find that their work overlaps with public health practitioners. Medical managers make their largest contributions through the development of health systems, which include personal health care, public health services, and other inter-sectoral initiatives. It is important that medical managers take a balanced approach in developing a health system, which contributes to a fair and healthy society.

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E. Loh et al. (eds.), *Textbook of Medical Administration and Leadership*,
https://doi.org/10.1007/978-981-10-5454-9_10

A broad range of skills is required to practice successfully as a medical manager who is involved in public and population health. In the same way as performing a root cause analysis, the process starts off with understanding and analysing the actual issues, questions and challenges, before too much effort is spent on solving the wrong problem. There are often conflicting priorities for improving the health of populations, and it is ever more important that solutions are not only viable, but cost effective too.

In the end, decisions always need to be made, and these are usually difficult, but important, choices. By using evidence and quality data, decisions may eventually become more apparent. The subsequent implementation of any policies that arise from these decisions will require other interpersonal and organisational skills such as influencing, communicating and collaborating, which are key skills of a competent medical manager.

It is impossible to describe all facets of public health in one textbook, let alone a chapter. This chapter then seeks to identify the challenges a medical manager would commonly come across in his or her daily practice, and aims to be a reminder that it is important to consider what is happening beyond the four walls of one's immediate organisation; that to be a good health service manager, one often needs to be a competent population health manager.

## 10.2 Definition of Public Health

A widely adopted definition is that Public Health "*is the science and art of preventing disease, prolonging life, and promoting health through the organized efforts of society*" [2].

Roger Detels in 2003 defined the goals of public health as: *The biologic, physical, and mental well-being of all members of society regardless of gender, wealth, ethnicity, sexual orientation, country, or political views* [3].

This is very similar to the World Health Organization's definition of Health as: *"a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity"* [4].

What is immediately obvious is that public health involves achieving health goals from not just an individual but also the collective efforts of society, and this is more than merely the elimination of disease.

Conceptually, public health can take a population health approach, in order to identify, measure and monitor community health needs through surveillance of disease and risk factors. In other words, it is concerned with threats to the overall health of a community based on population analysis. Public health interventions are then aimed at prevention of diseases, or improving the overall health of society.

## 10.3 Definition of Population Health

In the last decade or so, there has been significant debate about the definition of Population Health. Population health has been variously defined, including "the study of health and disease in a population as specified by geographical, cultural or political guidelines [5]", or "the health outcomes of a group of individuals, *including the distribution of such outcomes within the group* [6]" (*concept of health, informed by the study of its determinants and including subsequent interventions*). While it is difficult to determine which is normatively right or wrong, in this chapter, the latter definition is used.

Examples of populations include regional and rural populations, sufferers of chronic disease, Indigenous populations, or refugees.

## 10.4 Demographics

To understand public health and population health, it is important to understand some key demographics in Australia. These demographics provide the basis for identifying health issues, developing health policies, as well as providing an insight into limitations of interventions.

Australia is a country with a population of approximately 25 million. The land size of the country is large however, and at 7.7 million

square kilometres of land, it represents about 5% of the world's total land area. Australia is subsequently one of the least densely populated countries on Earth.

With 89% of the population living in urban areas, Australia is one of the most urbanised countries. Most of the population is congregated in the eastern coastal capital cities, with the exception of Perth on the west coast. Migration policies are such that there has been a net influx of migrants, with the most significant reported countries of birth being the United Kingdom, New Zealand, China and India according to the Australian Bureau of Statistics [7] (ABS).

Australia has an Indigenous population of over 500,000, located mainly in regional and rural areas of New South Wales, Queensland, and the Northern Territory. While the Northern Territory has an Indigenous population of approximately 70,000, this represents about 30% of its total population. This Indigenous population unfortunately suffers from significantly poorer health outcomes, and will be covered later in the chapter.

### 10.4.1 Ageing Population

According to the Australian Institute of Health and Welfare (AIHW), average life expectancy of Australians at birth in 2012 is 82.1 years, with boys born in 2011–2013 being 80.1 years, and 84.3 years for girls [8]. This puts Australia's life expectancy at one of the highest levels in the world, which also has health policy and management implications as the population ages (Fig. 10.1).

### 10.4.2 Population Structure

The structure of Australia's population has changed significantly over the past few decades, and will continue to do so over the next 40 years. The relative portion of population aged 65 and over is growing, indicating a decrease in the proportion that signifies the traditional working age, between 15 and 64 years.

Previous depictions of the population pyramid with the younger population forming a large

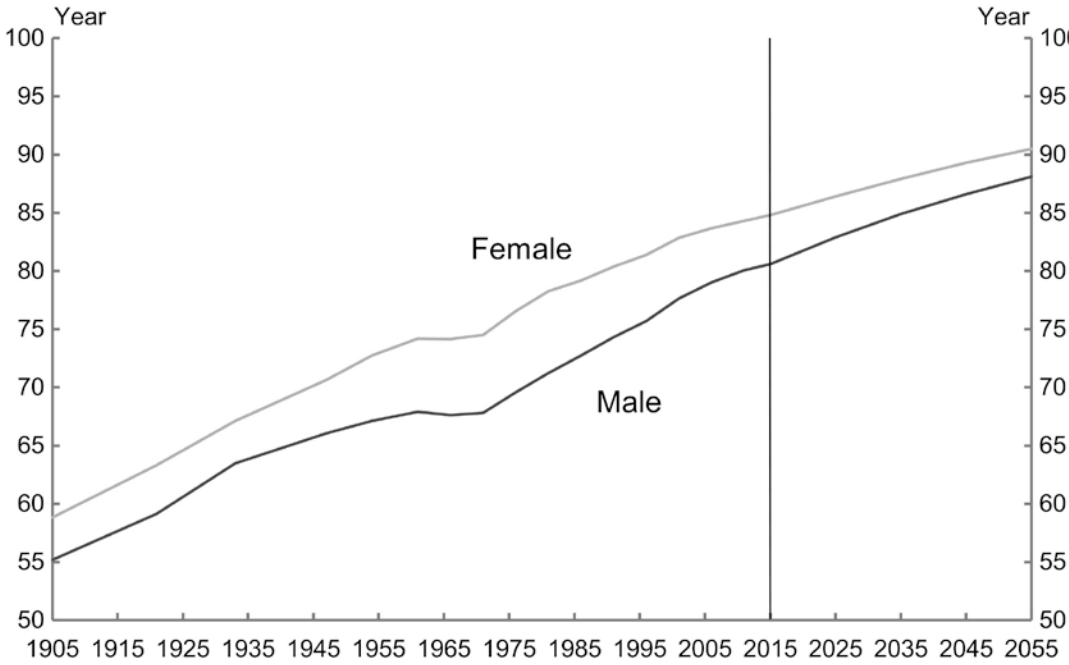


**Fig. 10.1** Male and female life expectancy, 1905 to 2055. (From 2015 Intergenerational Report, Australia in 2055, The Commonwealth of Australia, with permission)

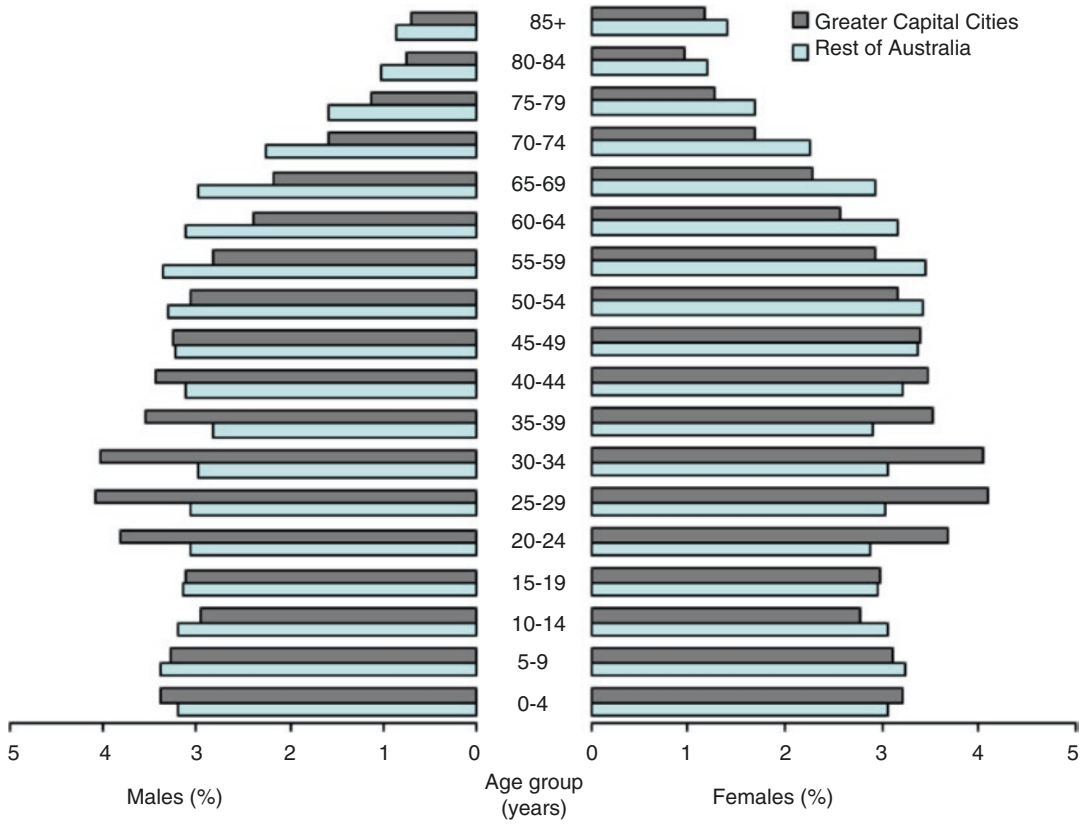


**Fig. 10.2** Age and sex distribution (%), Greater capital cities and rest of Australia—30 June 2016. (From Cat 3235.0 - Population by Age and Sex, Regions of Australia, 2016, from the Australian Bureau of Statistics, http://www.abs.gov.au/ with permission)

base and narrowing towards the top, representing the elderly, are thus changing, with the structure looking more cylindrical than before (Fig. 10.2).

This is significant for the health workforce, as it means that there will likely be a growing demand from diseases of the elderly, with relatively less workforce to support it.

### 10.4.3 Socio-economic Disadvantage

The social gradient of health is a phenomenon that suggests that in general, the higher the person's income and education, the healthier they are. Daily smoking rates are a clear example, as the higher the socio-economic status (SES) group, the less likely it is for the person to be a daily smoker. In the lowest SES group, the rate in 2011–2012 was 23% as compared with 10% in the highest.

Difference in harmful levels of alcohol consumption is also evident, with 22% in the lowest SES groups compared to 17% in high SES groups. Other examples include sufficient physical activity (34–52%), women and children overweight and obesity (64% and 48%, respectively, for women, 33% and 19% for children) [9].

There are other health measures and risk factors with known social gradients, which include life expectancy, self-assessed health status, oral health, end-stage kidney disease, and mortality and 5-year relative survival from all cancers.

## 10.5 Why Is Public Health Important for Medical Managers?

Infrastructure for public health is provided by state and local government departments and

agencies and is closely aligned to housing and environments policy and services also provided by government.

Public health provision is also supported by other agencies such as health service providers and academic health science institutions, where medical managers are often employed. Having an understanding of the overall picture and issues across these sectors is important to provide context to the management of the individual person or individual organisation.

One might ask why are the housing and environmental sectors involved in health care? This is because the concept of health is much more far-reaching than the usual health services that medical managers are accustomed to.

It is not difficult to conceptualise that clean water, good sanitation, education or even employment contribute to better health for an individual. These are the social determinants of health, and it is important to understand that public health is intricately linked to them.

The scenario below is an example of social factors affecting the daily management of a health service.

*A 42-year-old man with a mental health history is brought to the emergency department with suspected drug overdose and acute psychosis. He had recently been evicted from his home for repeated violent behaviour towards his neighbours and damaging the rented property. He has no known family and is unemployed.*

You can imagine that while the doctors and nurses can potentially treat the patient back to pre-event health status, it is clear that the social issues such as his accommodation and social supports need to be considered early on in the admission, because they impact on the longer terms outcomes for the patient. Otherwise one might come across the familiar situation where the patient is medically fit for discharge, but the care team, however, will flag post-discharge concerns that should have been addressed earlier in the treatment process.

Failing to identify these issues may potentially lead to suboptimal utilisation of acute beds while they are being addressed, or discharging a patient who is at high risk of being readmitted. A health service manager may need to consider working closely with the housing sector in the situation above, to prevent downstream issues adversely impacting on the health service's operations.

## 10.6 Public Health

From a historically restrictive mandate of ensuring public sanitation, clean water and food supply, public health has evolved to include services for personal protection, such as immunisation or contraception, or health promotion (mainly health education such as physical activity or nutrition). Legislation and social policies have been influenced by public health interventions, and this is evidenced in areas such as tobacco legislation or the need for seatbelts.

It is thus noticeable the mandate of public health has expanded from providing the essential hygienic services, to disease prevention and personal protection, and now to a range of social engineering efforts. This clearly cannot be achieved by health service organisations alone, and requires the coordination of a range of different sectors.

Taking a trip down memory lane, it is easy to identify various public health interventions that have made significant impacts on populations over the years, and then discuss some of the recent efforts by governments.

The oldest form of public health would likely be the provision of clean water and sanitation. The development of the smallpox vaccine also holds an important place in public health history. By the mid-twentieth century, the automotive industry has gifted us with seatbelts, and by 1970, Victoria was the first place in the world that passed compulsory seat belt laws, lowering the incidence of injury or death for drivers and front seat passengers.

More recently, efforts in public health can be witnessed in the following areas, which have received significant media attention.

- Fluoridation of drinking water
- Child immunisations
- Anti-smoking legislation
- Encouraging physical activity and obesity prevention

Each area has received its fair share of publicity as different interest groups lobby for different outcomes. Any intervention, in particular legislative or policy changes, is usually perceived to negatively impact on certain groups, often industry.

To understand the challenges that public health interventions face, one only has to look at the significant amounts of resources tobacco companies invested in fighting the recent legislation in Australia requiring cigarettes to have plain packaging and unsightly health warnings on them [10].

As a medical manager you may be required to work with your colleagues to advocate for and champion important public and population health issues, possibly support the clinical case with an equally potent business or economic position.

### 10.6.1 Communicable Diseases

A medical manager is often confronted with challenges associated with communicable diseases. These range from routine in-hospital practices of infection prevention, to the involvement in planning and response to epidemic outbreaks at the health service level.

In the last two decades, prominent emerging infectious diseases that spring to mind are the outbreaks of the Severe Acute Respiratory Syndrome (SARS), Influenza A virus subtype H5N1 "avian influenza", or the Influenza A virus subtype H1N1 "swine flu" pandemic.

These influenza outbreaks originating from Asia were highly contagious and claimed many lives, especially in the at-risk populations such as the elderly or pregnant women. Australia was not significantly affected by SARS and H5N1 as compared to the rest of the world; however, the swine flu pandemic in 2009 saw over 37,000 reported cases in Australia, claiming 191 lives. It was fortunate that comparatively the fatality rates in Australia were low.

More recently, the 2014 outbreak of Ebola Virus Disease (EVD) from West Africa also caused significant consternation, as the disease reported very high mortality rates of between 30% and 70% amongst those infected. The personal protective equipment required for health care workers was significantly more comprehensive than normally required, including full body suits.

In these situations, the medical manager often plays a significant leadership role in coordinating the responses within their health service, as well as being involved with emergency planning and preparation work such as training exercises. Working parties are convened with representation from relevant parts of the organisation, usually including infection control and infectious disease specialists, intensive care and emergency physicians, nursing, occupational health and safety staff, and potentially media and communication representatives.

Escalation procedures will need to be in place to support staff on the ground, with considerations for separate triaging and treatment areas including negative pressure rooms, vaccinations for staff, and dogged use of personal protective equipment. It is important to have good communication channels with the State Health Department to ensure appropriate notification, escalation and mobilisation of resources. It is also pertinent to have a clear media strategy with the community as well, in order to ensure that fear is managed and simple prevention messages communicated.

While not prevalent in Australia, another communicable infectious disease that has been on the watch-list recently include the Middle East Respiratory Syndrome Coronavirus, which has spread through to parts of Asia, with South Korea the most adversely affected.

### 10.6.2 Infection Prevention and Management

A simple way of preventing infections is through good hygiene practices, and in health services, the most effective and simple way is to have good hand hygiene practices. Policies, procedures and guidelines should be developed and in place to ensure staff are aware of what is expected of them, both for the protection of the patients and themselves.

With *Preventing and Controlling Healthcare Associated Infections* being one of the National Safety and Quality Health Service Standards (Standard 3), control measures applied in the hospital setting include establishing hospital infection control committees, providing isolation areas, use of personal protective equipment, regular cleaning and sterilising requirements, or restriction of activities, such as working while infectious. Hand hygiene compliance requirements are more in the spotlight, and medical managers should be leading the charge for it by mobilising support and driving the agenda.

Related is the all-important function of antimicrobial stewardship. Increasingly bacteria are developing resistance to antibiotics, and multi-resistant organisms such as Methicillin-resistant *Staphylococcus aureus* (MRSA), Vancomycin-Resistant Enterococci (VRE), or the deadly Carbapenem-resistant Enterobacteriaceae (CRE) are increasingly found in the community. While this has been attributed to overuse of antibiotics in the community, hospitals are often found lacking in adherence to antibiotic best practices. Leading health services are now actively tackling this issue with antimicrobial stewardship programmes.

Although such programmes are usually managed by infectious diseases teams, it is important that the medical manager provides visible support for this. Many doctors see the approval process of antibiotics as cumbersome, but compliance has been shown to be beneficial for the community in the longer term. Standard 3 makes mention of the need for an antimicrobial stewardship programme, and in a similar way to mandatory hand hygiene compliance key performance indicators, medical managers could use this argument to facilitate adherence to the antimicrobial stewardship programme within their health service.

Staff vaccinations are also an important way to prevent the spread of infections to health care workers and in between patients. The vaccination process not only provides an active immunisation benefit to the individual, it also creates passive herd immunity benefits to the community, which provides relative protection of the population group by reducing or breaking the chains of transmission of an infectious agent because most of the population is resistant to the infection.

Often being in key leadership positions, medical managers play an important role in promoting the importance of immunisations.

### 10.6.3 One Health

The concept of One Health is worth noting, and that the movement to link physicians, veterinarians, and other scientific-health and environmentally related disciplines is gaining momentum. One Health is particularly important when we consider communicable diseases, as there are more connections between human health, animal health and the environment than was initially perceived.

Examples of these include transmission of zoonotic diseases from animal to human beings like EVD, or the indirect ingestion of antibiotics through animals that have been injected with antibiotics to increase growth and subsequent development of antibiotic resistance. With increasing globalisation, it is worth acknowledging that an environmental issue affecting livestock in Central and South America, Europe or Asia could affect Australians who have unwittingly consumed it.

### 10.6.4 Tobacco, Alcohol and Illicit Drugs

In medical school, students would have been taught the physiological harm that tobacco, alcohol and drugs cause to the individual, such as lung cancer, liver cirrhosis or brain damage. In fact, these substances can cause harm much further beyond the individual, as they often affect the relatives and friends around them, as well as causing a unique set of challenges for health care professionals.

For decades now, governments have spent significant efforts trying to reduce smoking rates. This has led to the rates of daily smokers in adults essentially halving between 1993 and 2013, from 26.1% to 13.3% [11].

Tobacco is not only hazardous to the smokers, but also to those around them through the inha-

lation of second hand smoke. Smoke-free environments are becoming increasingly popular and legislatively required, including restaurants, bars and all indoor areas. These policies are important from more than one perspective because they protect non-smokers to the exposure of tobacco smoke, reduce smoker's consumption of cigarettes, and even induce some smokers to quit [12].

Australia's low smoking rate is the result of sustained, concerted and comprehensive public policy efforts from all levels of government and action from public health organisations. Since 1973, when health warnings were first mandated on all cigarette packs, a combination of further restrictions and bans on advertising and smoking in restaurants and increases in taxes have been progressively introduced [13]. A look at the Australian Department of Health's website will show that it has taken significant effort and time to achieve current rates (Table 10.1).

It is important that this effort is sustained, as each year smoking kills an estimated 15,000 Australians, and although over 75% of the cost of tobacco for the consumer is in taxes, the social and economic costs of $31.5 billion for Australia outstrips tobacco sales of $3.4 billion by ninefold.

There have been significant public health efforts in reducing the harm caused by alcohol, particularly associated with binge drinking, driving under its influence, and alcohol-related violence.

Alcohol as a public health issue is challenging, not least because drinking is largely seen as

**Table 10.1** Tobacco Control Timeline

| |
|---|
| • 1973—Health warnings first mandated on all cigarette packs in Australia. |
| • 1976—Bans on all cigarette advertising on radio and television in Australia. |
| • 1986 to 2006—Phased in bans on smoking in workplaces and public places. |
| • 1990—Bans on advertising of tobacco products in newspapers and magazines published in Australia. |
| • 1992—Increase in the tobacco excise. |
| • 1993—*Tobacco Advertising Prohibition Act 1992* prohibited broadcasting and publication of tobacco advertisements. |
| • From 1994 to 2003—Bans on smoking in restaurants. |
| • 1995—Nationally consistent text-only health warnings required. |
| • 1998 to 2006—Bans on point-of-sale tobacco advertising across Australia. |
| • 2006—Graphic health warnings required on packaging of most tobacco products. |
| • 2010—25% increase in the tobacco excise. |
| • 2011—First complete state or territory ban on point-of-sale tobacco product displays. |
| • 2012—Offence for any person to publish tobacco advertising on the internet or other electronic media. |
| • 2012—Introduction of tobacco plain packaging, and updated and expanded graphic health warnings |
| • 2012—Reduction in the duty free allowance from 250 cigarettes or 250 g of cigars or tobacco products to 50 cigarettes or 50 g of cigars or tobacco products from 1 September 2012. |
| • 2013—First 12.5% tobacco excise increase on 1 December. |
| • 2014—Change from bi-annual indexation based on the Consumer Price Index (CPI) to bi-annual indexation based on average weekly ordinary time earnings (AWOTE). |
| • 2014—12.5% excise increase on 1 September. |
| • 2015—12.5% excise increase on 1 September. |
| • 2016—Release of the Post Implementation Review of Tobacco Plain Packaging. |
| • 2016—12.5% excise increase will be implemented on 1 September. |
| • 2017—Additional four annual 12.5% tobacco excise increases implemented on 1 September each year from 2017 to 2020 inclusive. |
| • 2017—Reduction in duty free tobacco allowance, 25 g of duty free tobacco (cigarette, loose leaf, etc.), plus one open packet; equivalent to approximately 25 cigarettes. |
| • 2017—Harmonisation of the taxation of roll-your-own tobacco and other products such as cigars, with manufactured cigarettes. |

From Australian Government Department of Health, with permission; http://www.health.gov.au/internet/publications/publishing.nsf/Content/tobacco-control-toc~timeline

a social activity, and the rates of alcohol-related problems tend to rise and fall with changes in the level of consumption of the population. Thus controls on the availability of alcohol, including taxes, affect the level of consumption and subsequently rates of alcohol-related problems [14].

The development of the National Alcohol Strategy 2016–2021 is being undertaken currently, and it is common to see police conducting random breath testing weekends and public holidays in all States and Territories. Advertising campaigns aimed at both educating the general public and highlighting policing efforts are common. Recently alcohol-related violence has also received significant media attention, as there have been a number of high-profile deaths caused by unprovoked single acts of violence.

At the same time, sporting clubs are encouraged to promote a culture of safe drinking, and to reduce their affiliations with alcoholic beverage sponsors in an effort to change behaviour and attitudes around alcohol consumption [15].

Most would have read of the recent challenges posed by crystalloid methamphetamines, colloquially termed by the media as the "ice epidemic". While the total rate of methamphetamine use has remained steady recently, the use of its crystalloid form, known as ice, has developed into a significant health issue. Users of the drug are prone to experiencing hallucinations and can be particularly agitated and violent.

Communities in regional Australia are twice as likely to use methamphetamine than those in major cities, along with smoking daily and drinking excessively [11].

This is particularly challenging for health care professionals in emergency departments who treat them following an overdose, as they not only have to treat the physiological sequelae but also the violence and aggression that often accompany them. Within 3 years from 2010, ice has grown to be the illicit drug thought to be of most concern for the general community, and in 2013 became the second highest cause of death from illicit drugs [11]. However, it still lags behind heroin as the single largest cause of illicit drug deaths.

The significant problems associated with the use of ice is not an issue that law enforcement agencies can police or arrest its way out of. It requires a coordinated effort from multiple sectors including health care, education, as well as law enforcement, in order to be able to stem its growing abuse and harm.

## 10.7 Occupational Health

Occupational health deals with the interaction between health and work. It encompasses:

- The prevention of occupationally related illness or injury resulting from exposure to workplace hazards
- Ensuring workers with pre-existing illnesses or disability are able to continue working without undue risk to their health or third parties
- Promoting general health and safe working practices in the workplace

When one considers the total proportion of people who go to work, it is clear that even a small percentage of this large number can be an important public health consideration, and maintenance of their health is important to the well-being of their colleagues, family, employer and consumers.

The medical manager's approach should include identifying hazards in the work setting, determining at-risk populations and assessing the risks associated with exposure to the risk, and then taking appropriate preventive actions such as elimination, substitution or containment of the hazard, and limiting exposure. It is also important to periodically evaluate the effectiveness of the preventive measures.

Promoting general health in the workplace include advice and information on alcohol intake, smoking, diet, physical activity or safe driving. Health promotion activities in the workplace can include measures such as serving healthy food products in cafeterias, having a no-smoking policy, or providing subsidies to join sports and exercise facilities.

## 10.8 Chronic Diseases

Chronic diseases have become the most common cause of death in high-income countries such as Australia, overtaking communicable diseases, which are still the leading causes of death in low-income countries [16]. Indeed, 68% of global deaths were caused by non-communicable diseases (NCD) in 2012, an increase from 60% in 2000. Communicable, maternal, neonatal, and nutritional conditions accounted for 23%, while injuries caused 9% of all deaths. In high-income countries, the proportion of deaths caused by NCD is even higher at 87%, as compared to 37% in low-income countries.

In Australia, eight out of the nine National Health Priority Areas, which are diseases and conditions that Australian governments have chosen for focused attention, are chronic in nature. These include:

1. Cancer control
2. Cardiovascular health
3. Mental health
4. Diabetes mellitus
5. Asthma
6. Arthritis and musculoskeletal conditions
7. Obesity
8. Dementia

The other priority area is injury prevention and control.

Chronic diseases impose an increasing burden to health care systems, and health services have needed to focus on the management of patients who suffer from chronic diseases through intense care coordination programmes such as the Hospital Admission Risk Program in Victoria. Important components of chronic disease management programmes are the proactive upstream care that improves quality of life, as well as reducing the risk of the patient's condition deteriorating to the extent where they require an acute admission.

There are many variations of how this is provided to the patient, and innovative health services have incorporated approaches such as using mobile technology, graded escalation protocols, and intensive self-care education into their programmes. Because the aim is to keep the patient well in the community, often the patients' GPs play highly important roles in managing their conditions.

A well-designed and executed chronic disease management programme achieves the following outcomes:

1. A net financial benefit to the health care system through fewer acute admissions
2. Improvement in the patient's quality of life
3. Better management of disease markers
4. Co-decision, improved buy-in and adherence to agreed therapies

Chronic disease management requires a population management approach [17]. The segmentation of population groups by many health systems are variations of the Kaiser Pyramid (Fig. 10.3).

Level 1 are those patients who make up 70–80%. Intervention seeks to encourage patients to be activated. Active participants in their own care, learn to live with their conditions and manage it. This aims to help them prevent complications and slow down deterioration.

Level 2 are patients who are considered to be high risk, and their condition has progressed to a stage where active care management is required. This usually involves a multidisciplinary team that provides high-quality evidence-based care to the individuals through following agreed protocols and pathways.

The highly complex patients are designated Level 3, where they have developed multiple co-morbidities, and their care becomes disproportionately complex for them as well as the health system. A case worker is often required to actively manage the patient's health and help navigate through multiple health, social and community systems.

There are many who would argue that another level should be added to the Kaiser Pyramid, and this is at the level of health promotion for the general public, to prevent the whole of population even getting to Level 1. These sort of primary preventions include aiming to increase physical activity, reduce smoking rates, having a healthy diet, or increasing uptake of immunisations.

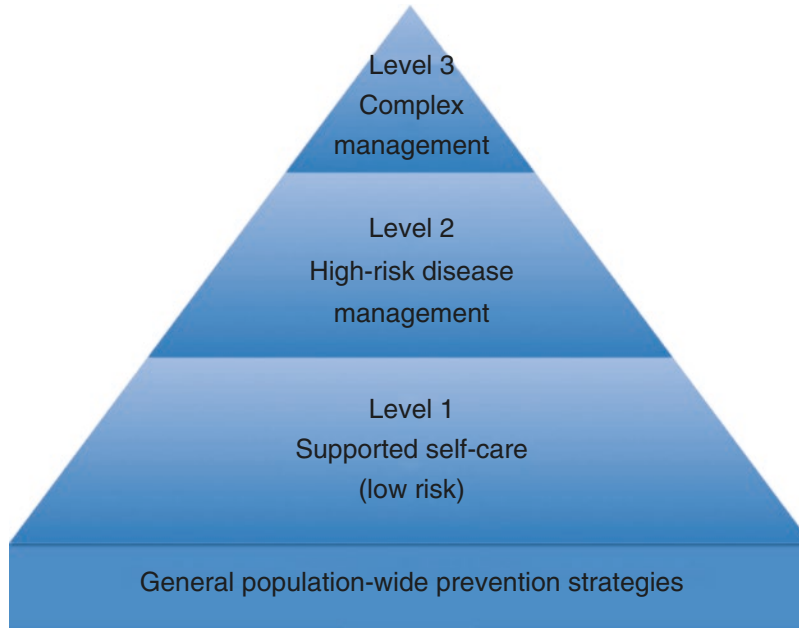


**Fig. 10.3** Variation on the Kaiser pyramid

The components of disease management include:

- Population identification processes, including the increasing use of predictive modelling and pattern recognition
- Evidence-based practice guidelines
- Collaborative practice models that include physicians and support service providers
- Patient self-management education
- Process and outcomes measurement, evaluation and management

It is important to ensure that disease management programmes are put in place not just to manage costs considerations, but just as importantly quality of care, otherwise they will have a high risk of failing.

## 10.9 Regional and Rural Health

Australia, with its vast land and low population density, creates some interesting challenges that are quite unique to health care. There are often challenges that medical managers face, which are different from those encountered while working in metropolitan areas.

It is recognised that the overall health status of populations in regional and rural Australia is poorer than their metropolitan city counterparts. Health outcomes, as seen with higher death rates, tend to be poorer outside major cities [18]. This is most likely due to a multitude of reasons, including higher concentration of the socio-economically disadvantaged, lack of infrastructure, challenges with access to timely medical care, and the difficulty of attracting high-quality health care staff to the region.

According to AIHW, compared to major city dwellers, people in outer regional and remote areas are more likely to:

- Be a daily smoker (22% compared with 15%)
- Be overweight or obese (70% compared with 60%)
- Be insufficiently active (60% compared with 54%)
- Drink alcohol at levels that place them at risk of harm over their lifetime (24% compared with 19%)
- Have high blood cholesterol (37% compared with 31%)

There are clear differences that exist in health service usage between areas, for example, lower rates of some hospital surgical procedures or GP

consultations, but higher rates of hospital admissions. There are differences in risk factors, such as the population in regional and remote areas being more likely to engage in harmful activities such as smoking or drinking alcohol in harmful or hazardous quantities. Environmental risks also play a part, such as having more physically dangerous occupations, or factors associated with driving long distances or at speed.

Being in regional and rural areas means that health services are unlikely to be able to provide high complexity services such as neurosurgery or cardiac surgery due to a lack of scale. The decision for health services to provide these services is not taken lightly even if they could physically and financially afford to do so, as the low number of procedures means that the risk of poorer outcomes for patients is much higher. This invariably creates access difficulties for the communities, but could be mitigated to a certain degree by establishing strong partnerships with referral hospitals to facilitate access when required.

A significant challenge medical managers face in regional and rural areas is the difficulty of recruiting specialist medical staff. Often this can be costly, both in terms of one-off recruitment costs and remuneration. Many health services still offer fee-for-service remuneration models, and medical managers need to be aware of the risks associated with such models, such as overservicing and performing unnecessary procedures, or trading safety for perceived efficiency.

Doctors who move to the region will also need to be supported in a variety of ways. Initially this may be in the form of relocation assistance, but will also include ensuring that there is sufficient peer support, opportunities for ongoing professional development and ability to participate in clinical reviews and audits.

While residents of more inaccessible areas of Australia are generally disadvantaged in their access to goods and services, educational and employment opportunities and income, a unique characteristic of regional and rural populations is that they often have a very strong sense of belonging within the community, and if this community spirit can be harnessed, it can often contribute to the betterment of the region's health services.

## 10.10 Indigenous Health

While historically it has been challenging to get accurate data to identify the extent of the problem, there has been significant progress in the availability and quality of statistical information on Aboriginal and Torres Strait Islander (ATSI) peoples over the last decade in Australia through the Census. Specific surveys of ATSI peoples have been conducted regularly to address gaps in health and welfare information to allow for monitoring changes over time.

What is clear, however, is that health and social outcomes for the Indigenous population are much poorer than the rest of Australia's populations.

An Indigenous boy born between 2010 and 2012 can expect to live more than 10 years less than a non-Indigenous boy (69.1 years compared with 79.7 years), and an Indigenous girl about 9 years less (73.7 years compared to 83.1). Across all age groups, the Indigenous population has higher death rates than non-Indigenous Australians.

In addition to poorer life expectancy, there are other measures of health in which Indigenous Australians fare much worse when compared to the non-Indigenous population. This is referred to as the health gap. Some examples are listed below, where Indigenous Australians, after adjusting for differences in age structure [19]:

- Had incidence rates of end-stage kidney disease 7 times that of non-Indigenous Australians in 2007–2010.
- Had 3.3 times the rate of diabetes/high sugar levels of non-Indigenous Australians.
- Had 3 times the hospitalisations for respiratory conditions and more than twice as many hospitalisations for mental and behavioural disorders as non-Indigenous Australians.
- Had an obesity rate 1.5 times that of non-Indigenous Australians.
- Were 1.5 times as likely to die from cancer in 2007–2011 as non-Indigenous Australians.
- Had higher youth suicide rates than non-indigenous Australians.
- Death rate in the 35–44 age groups is 5 times that of non-Indigenous Australians, and within the 0–4 aged groups death rate is more than double.

It is important to acknowledge that social determinants such as unemployment, lack of education, or increased behavioural risk factors contribute to this health gap, and there are also complex interactions between social determinants and risk factors. Of the social determinants, household income, highest level of schooling completed and employment status have the largest estimated impact on the gap.

Australian Governments have acknowledged this issue, through the Close the Gap Statement of Intent signed by the Prime Minister in 2008, and at the December 2007 COAG meeting at which the Australian governments committed to:

- Closing the life expectancy gap within a generation.
- Halving the mortality gap between ATSI and non-Indigenous children under 5-years of age.
- Halving the gap in reading, writing and numeracy within a decade.

While progress has been slow [20], it is important to remember that the Closing the Gap Strategy was only operationalised in July 2009, and the latest progress and priorities report (2015) only had data from 2012 to 2013 [21]. The magnitude of the goals will require time and a larger focus on access to appropriate primary health care services to detect, treat and manage treatable and preventable chronic conditions.

## 10.11 Gaps in Health

While health is the final common outcome desired, its achievement is contingent on the good functioning of many other processes and sectors. Historically, there has been an implicit assumption that through the implementation of narrow disease-specific interventions, broader health systems will be strengthened more generally. However, evidence of benefit for these selective health system interventions have been mixed [22]. Systems that are weak and fragmented may be further compromised by the over-concentration of resources in specific vertical programmes, leaving other areas under-resourced.

In Australia, the fragmentation of the health system with different governments funding different health programmes can lead to duplication of work processes, service disruptions in existing programmes, and distraction from core work activities.

It is also important to recognise the importance of sound governance, leadership and political will in order to improve the health of communities, whether from a national, state, or organisational perspective. Governments and organisations need to bridge the gaps between policies and their implementation, and address deeper sources of policy failure that can undermine health development.

Enlightened policy-making brings coherence to the delivery of health services and outcomes. It is important that the health of populations features as the principal concern of all health managers. Through inter-sectoral engagement, a platform must be created for coordination and consensus building across mutually reliant sectors. Such engagement will need to address multi-sectoral issues such as social determinants of health, macroeconomic policy, or health-related human rights.

## 10.12 Reflection

Many medical managers may not consciously realise that they work in public health, directly or indirectly. However, irrespective of whether one works in the public health unit of their local health department, or a private hospital, the work they are involved in often has a direct impact on public and population health. While governments have spent considerable efforts improving public health, legislation will always have a significant lag time behind accepted knowledge and quality initiatives, and it is essential that medical managers have an understanding of the challenges of contemporary public health issues, so that the solutions to problems that they implement take a more systemic approach, and benefits not only their health service but also the wider community.

## 10.13 Ready Reckoner

- Public and population health concerns itself with preventing disease, prolonging life, and promoting health through the organised efforts of society. Vulnerable populations often require a more specific focus.
- Medical managers need to be aware of what challenges the general public are at risk of, and the public and population health policies implemented in response to them. These policies affect health services and health care systems, and medical managers often play a significant role in moulding these policies and implementing them effectively.
- Australia has an ageing population, with associated increases in chronic diseases. It also has an ageing health workforce with implications for the supply of care in the future.
- Historical public health interventions include public sanitation, clean water and food supplies, and immunisation programmes. Recent efforts can be seen through tobacco and seatbelt legislation.
- The spread of communicable diseases can overwhelm health services quickly and the management requires a structured approach with good command procedures and clear communication channels in place. Medical managers also play a critical role in ensuring best practice infection control processes developed in health services including antimicrobial stewardship programmes, increasing hand hygiene compliance rates, and encouraging staff vaccinations.
- There has been significant effort by governments to reduce smoking rates, mainly through taxation and legislation, and improvements are starting to be seen. Attempts to promote a safe drinking culture are still ongoing, but one of the largest challenges the health system is facing is the abuse of illicit drugs, and in particular methamphetamines recently. It will require a coordinated approach from relevant sectors to change this tide.
- Chronic diseases pose a significant burden to Australia and other developed countries. It requires novel ways of managing these patients, including use of risk stratification, predictive analytics, encouraging self-care and case management.
- Regional and rural populations have a different set of challenges compared to metropolitan populations due health conditions associated with lower socio-economic status and access to general and specialist care.
- The Indigenous population in Australia have much poorer health outcomes than their non-Indigenous counterparts. This has much to do with social determinants of health, and lack of access to early identification and interventions.

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# Politics, Policies and Media

# 11

Bennie Ng

**Learning Objectives**
By the end of this chapter, the learner should be able to:

- Understand the role and responsibilities of governments in the Australian healthcare system.
- Recognise that the Government is organised and supported by key people in the office and the Department.
- Learn about the process of policy development and linkage with annual budget and election cycles.
- Understand the roles and news cycles across different media outlets.

## 11.1 Introduction

### 11.1.1 Australian Political System

Australia's system and style of government reflect British heritage and North American traditions combined in a way that is uniquely Australian [1, 2].

Australia is a federation whereby power and authority is shared between Commonwealth (federal) and State parliaments, governments and the courts. Australia is a federation of six States which, together with self-governing Territories, have their own constitutions, parliaments, governments and laws. At the heart of the democracy is the Australian Constitution. It is a written document that provides the basic rules for the operation of the nation laid out under three separate titles: the Legislature (the Parliament), the Executive (Governor-General and the Ministers) and the Judiciary (the High Court and other courts).

Australia is a representative democracy. In this political system, eligible people vote for candidates to carry out the business of governing on their behalf. All eligible voters are expected to vote in general elections.

After a general election, the political party, or coalition of parties, with the support of a majority of members, commonly known as Members of Parliament or MPs, in the House of Representatives becomes the Government and its leader becomes the Prime Minister. Since federation, the major governing political parties are the Coalition of Liberal Party of Australia and The National Party of Australia, and the Australian Labor Party. The Constitution gives the legislative power of the Commonwealth—the power to make laws—to the Parliament.

The Commonwealth Parliament consists of the Queen, represented by the Governor-General, and two Houses—the House of Representatives, or the Lower House and the Senate, known as the

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E. Loh et al. (eds.), *Textbook of Medical Administration and Leadership*,
https://doi.org/10.1007/978-981-10-5454-9_11

Upper House. The Parliament passes legislation. Proposed laws, or commonly known as *Bills*, have to be agreed to by both Houses of Parliament to become law.

The Commonwealth Parliament also authorises the Executive branch of the Government to spend public money by agreeing to government proposals for expenditure and taxation, scrutinises the administrative actions of the government and serves as a forum for the debate of public policy. Under this system, the Government provides members to the Executive branch of the Government led by the Cabinet and Ministry, and in turn led by the Prime Minister. Its job is to carry out the day-to-day government and administration of the country and to execute the laws. This is the central feature of a Westminster-style government following the United Kingdom model—in contrast to other systems of government, like the United States of America, where the Executive is separate and not directly answerable to the Legislature.

Australia is a constitutional monarchy. A monarchy is a country where the position of head of state is inherited. A constitutional monarchy is one where the powers of the monarch or sovereign, the King or Queen, are limited by law or convention, and generally exercised only according to the advice of an elected government. In Australia, the powers of the Queen have been delegated by the Australian Constitution to her representative in Australia, the Governor-General. Instead, the Governor-General acts on the advice of the Prime Minister and the Executive Council. The Executive Council consists of ministers in the government.

When bills are passed by a parliament, they have to be assented to before they can become acts of Parliament or law. The Governor-General has a role in the legislative process by assenting bills to Acts.

The composition of the House of Representatives also determines who will form the official Opposition. The party, or a coalition of parties, which has the most non-government members in the House of Representatives becomes the opposition party and its leader becomes the Leader of the Opposition. The Opposition has the officially recognised function, established by convention, of opposing the Government. The Opposition is an essential part of Australia's democratic system of government.

## 11.1.2 Government

### 11.1.2.1 Prime Minister

The Prime Minister is the head of the Commonwealth Government. He or she achieves this position by being the elected leader of the party in government.

### 11.1.2.2 Premiers and Chief Ministers

The Premier or the Chief Minister is the respective head of the State or Territory Government. He or she achieves this position by being the elected leader of the party in government.

### 11.1.2.3 Cabinet

The Cabinet, consisting of senior Ministers presided over by the Prime Minister, Premiers and Chief Ministers, is the Government's pre-eminent policymaking body. Policy is a course or principle of action adopted or proposed by an organisation or individual. Major government policies and legislative proposals are decided by the Cabinet. The Prime Minister, Premiers and Chief Ministers select ministers for Cabinet positions in designated portfolio.

### 11.1.2.4 Ministers and Assistant Ministers

Ministers are answerable to the parliament for its action. Most senior ministers are members of the Cabinet. Ministers are appointed from both Houses of Parliament. In addition, Assistant Ministers are appointed to support or represent Ministers in their portfoilio and administrative responsibilities.

## 11.1.3 Public Service

The public service is the administrative arm of the Executive Government, accountable to the relevant ministers and the Parliament. The array of government departments, authorities and

agencies, are charged with implementing government decisions and compliance with the law. The public service is also known as the bureaucracy. Senior ministers administer the major departments and are expected to accept full responsibility for decisions made by their department. Other Ministers are responsible for particular areas of administration within a major department, or may be in charge of a smaller department. In 2018, there are over 155,000 staff employed, excluding the military service, in the public service of the Commonwealth Government. Across all three levels of government, the public service employs over 1,800,000 people.

## 11.2 Health Politics

### 11.2.1 Health System: Roles and Responsibilities

Australia has a well-balanced public-private healthcare system with a complex and interlinked network of healthcare structures of healthcare professionals, patients and organisations [3]. All levels of government share responsibilities for the health of the population. They have roles as funders, policy developers, regulators and service providers and in many cases those roles are shared. The landscape is historical and reflects government and policy decisions made since the federation. Having a clear understanding of roles and responsibilities across different governments is the essential first step to navigate the healthcare system.

Health policy was not a prime focus of the federal constitutional conventions before the Federation. Healthcare was the responsibility of the States, with the Commonwealth's involvement in health policy at Federation limited to quarantine. The Second World War fundamentally changed the relationship between citizen and state, with public perceptions shifting about what governments should do. The Pharmaceutical Benefits Scheme (PBS) was introduced in 1948. With the support of the medical profession, Australia's first national health scheme was introduced by the Government in 1950 where individuals were free to choose whether they were covered by insurance. Since early 1970s, the Commonwealth increased its involvement in healthcare. Universal health insurance was introduced with the creation of Medibank in 1975. The creation of Medicare in 1984 saw the Commonwealth and the States and Territories agreeing to provide free healthcare for all Australians in public hospitals. Since the 1990s, the Commonwealth's focus has expanded its areas of interest from primary care, mental health, medical research to workforce policies. Some of these have traditionally been the responsibilities of State's and Territory's Governments.

### 11.2.2 The Federation—Funding

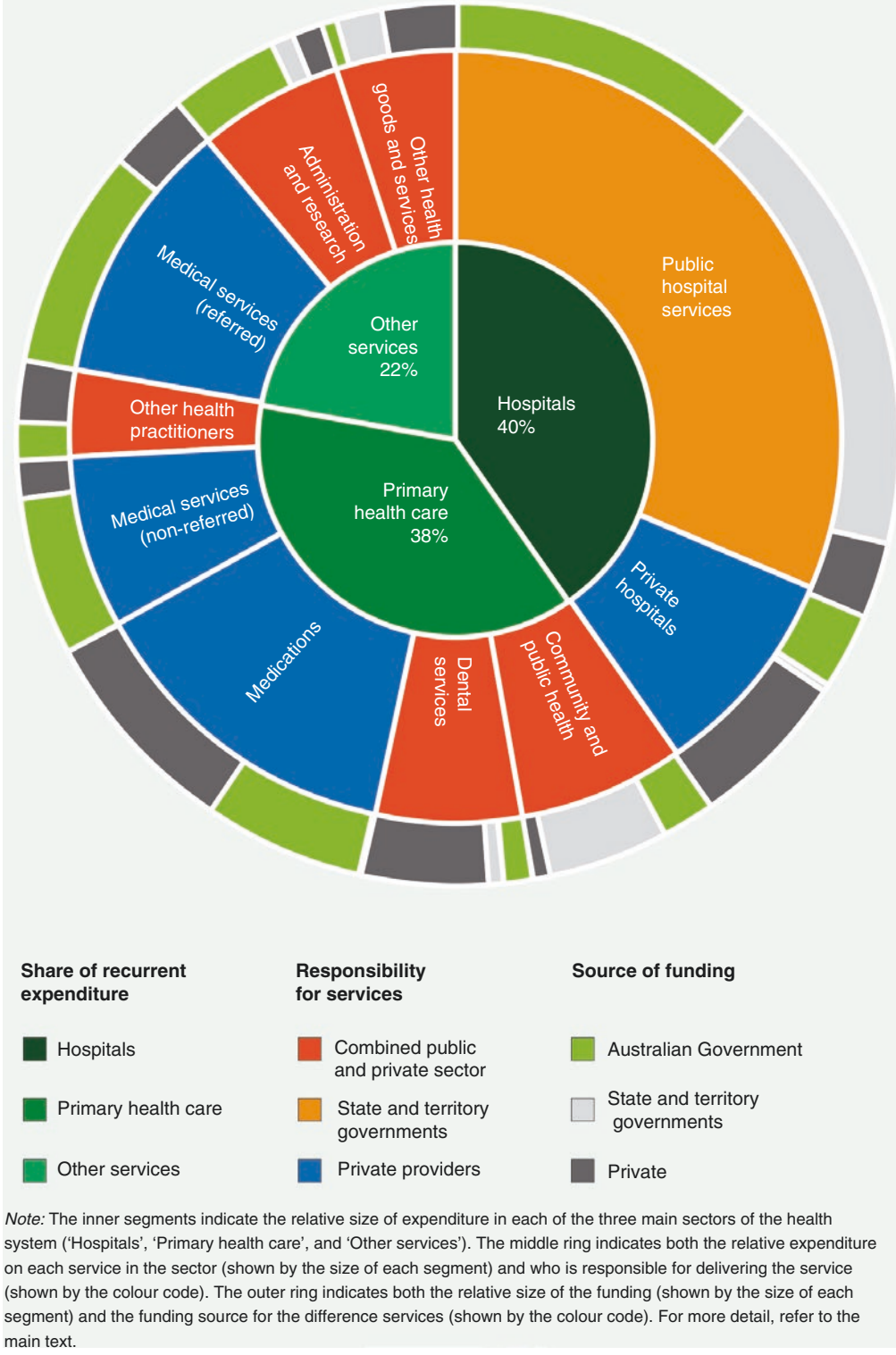
Total spending on healthcare in Australia was $170.4 billion in 2015–2016, which is 10.3% of GDP. The following diagram (Fig. 11.1) shows the distinct differences between the source of the funding, responsibility for services and the utility of services.

The Commonwealth and the States and Territories provide the majority of funding for healthcare. Total government health expenditure ($114.6 billion) is about two-thirds (67.3%) of all health expenditure. The complexity of funding flow from governments is illustrated in Fig. 11.2.

In 2015–2016, the Commonwealth Government spent $69.4 billion, or about 16% of all federal government expenses, in the Health portfolio. This compares to $154 billion spent on welfare and social security, about $32 billion on education and over $26 billion on defence.

The Commonwealth has a distinct role in funding medical services and medications through the Medicare Benefit Schedule (MBS) and the Pharmaceutical Benefit Schedule (PBS). The Commonwealth also provides the Private Health Insurance rebates to encourage people to take out and maintain private health insurance. People on high incomes without private health insurance pay a Medicare levy surcharge.

The States and Territories are the majority funders of emergency care, ambulance and retrieval services, and public hospital services




*Note:* The inner segments indicate the relative size of expenditure in each of the three main sectors of the health system ('Hospitals', 'Primary health care', and 'Other services'). The middle ring indicates both the relative expenditure on each service in the sector (shown by the size of each segment) and who is responsible for delivering the service (shown by the colour code). The outer ring indicates both the relative size of the funding (shown by the size of each segment) and the funding source for the difference services (shown by the colour code). For more detail, refer to the main text.

**Fig. 11.1** Australian health services—funding and responsibilities 2013–2014. (Source: Australian Institute of Health and Welfare 2016. Australia's health 2016. Australia's health series no. 15. Cat. no. AUS 199. Canberra: AIHW, with permission)

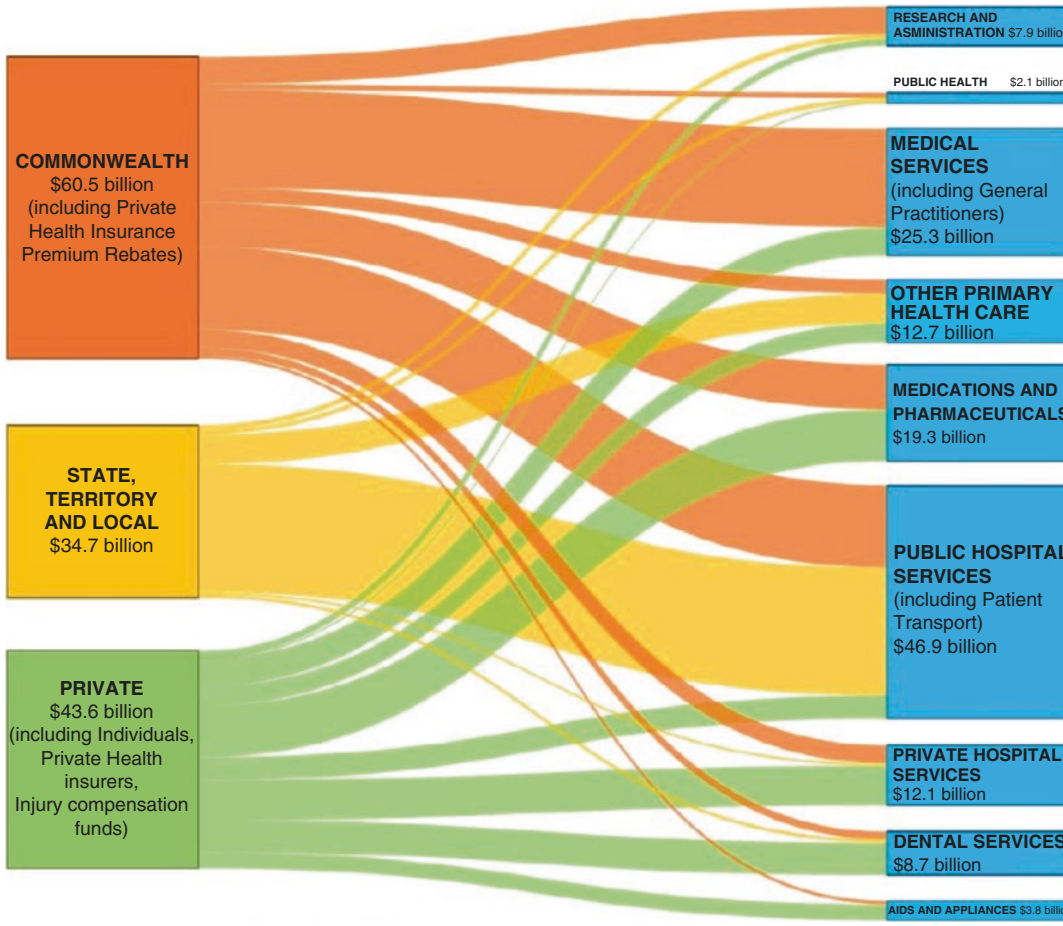



**Fig. 11.2** Funding flows in Australia Healthcare arrangements in 2012–2013. (Source: From Reform of the Federation White Paper: Roles and Responsibilities in Health, Issues Paper 3, December 2014. Licensed from the Commonwealth of Australia under a Creative Commons Attribution 3.0 Australia Licence. The Commonwealth of Australia does not necessarily endorse the content of this publication)

and have responsibilities to allocate and distribute monies accordingly. Local government plays a small but important role in funding healthcare, primarily on community-based services.

The private sector contributes considerably to funding healthcare in Australia. This includes patient contributions, primarily through out of pocket costs and private health insurance premiums. Individuals accounted for 17.7% of total health expenditure, a proportion which has remained relatively stable. In 2015–2016, 68.0% of individual expenditure was spent on primary healthcare and 19.5% of individual expenditure was on dental services.

### 11.2.3 Commonwealth and State Responsibilities

Currently, the States and Territories are predominantly responsible for the day-to-day running of public hospitals, ambulances, community and mental health services, and health infrastructure [4]. The Commonwealth is responsible for funding of medical services provided by general practitioners and medical specialists. Many policy roles in health are also shared between the Commonwealth and the States and Territories (Fig. 11.3). Shared policy areas include indigenous health, mental health, preventive health, and health workforce. While both the Commonwealth

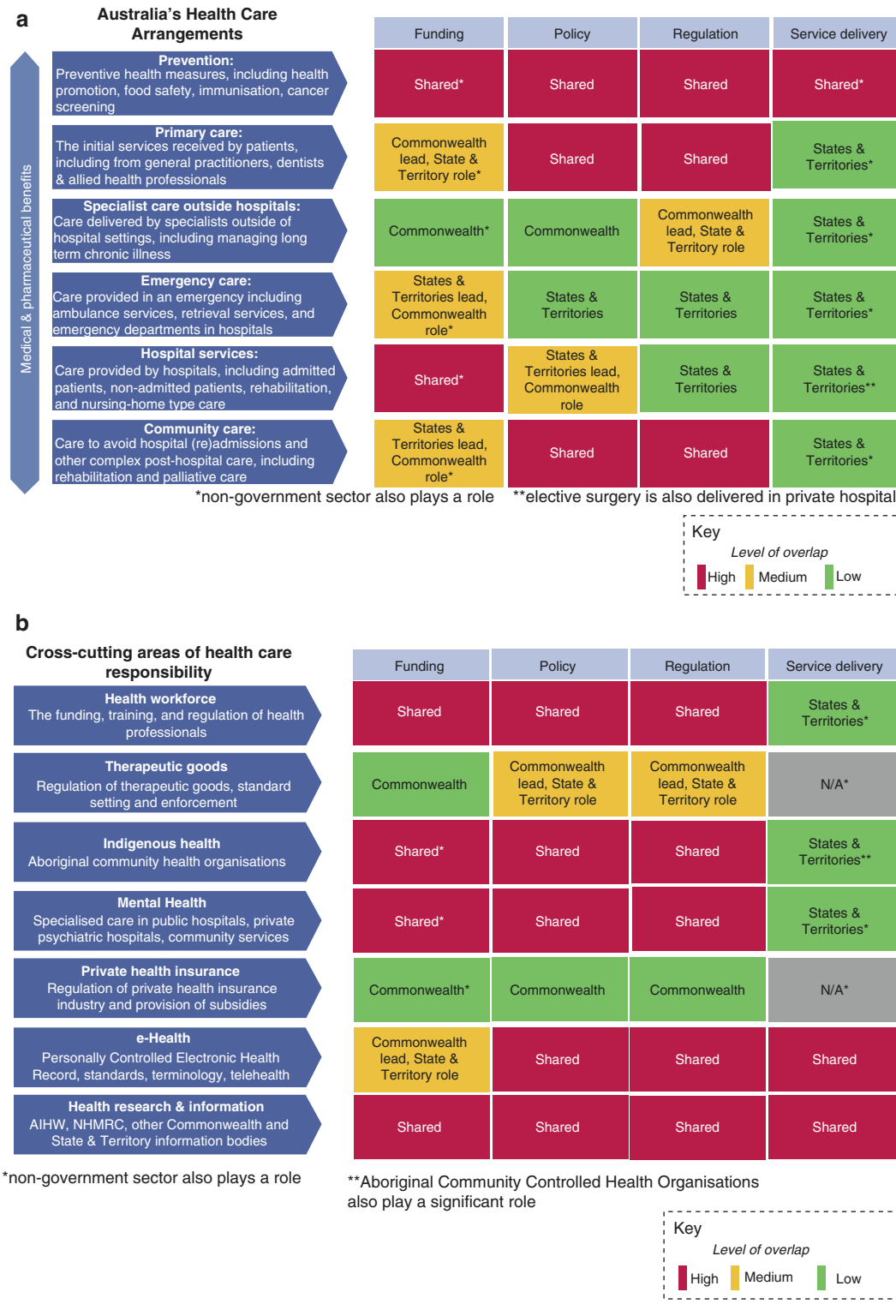



**Fig. 11.3** (**a**) Map of government roles and responsibilities in health. (**b**) Map of cross cutting areas of healthcare responsibility. (Source: From Reform of the Federation White Paper: Roles and Responsibilities in Health, Issues Paper 3, December 2014. Licensed from the Commonwealth of Australia under a Creative Commons Attribution 3.0 Australia Licence. The Commonwealth of Australia does not necessarily endorse the content of this publication)

and the States and Territories share policy roles in many areas, the intent is to cover different and complementary activities. In addition, the not-for-profit and private sectors play significant roles in healthcare in funding and health service delivery.

Policy decisions taken at one level of government can also affect other levels of government. The diagram above summarises the responsibilities of the three levels of governments. Respective governments work within their remit of roles and responsibilities from funding, policy development to regulation, compliance and service delivery. The Council of Australian Governments (COAG) is the peak forum for the leaders of all Governments to meet and discuss major issues. They meet at least twice a year (www.coag.gov.au). In 2015, the Commonwealth Government released a White Paper on the Reform of the Federation, which sought to identify and clarify roles and responsibilities to ensure that all governments are sovereign and accountable in their own sphere, and to consider ways to:

- Reduce and end, as far as possible, the waste, duplication and second guessing between different levels of government.
- Achieve a more efficient and effective federation, and in so doing, improve national productivity.
- Make interacting with government simpler for citizens.
- Ensure our federal system is better understood and valued by Australians; and has clearer allocation of roles and responsibilities; and enhances governments' autonomy, flexibility and political accountability; and supports Australia's economic growth and international competitiveness.

## 11.3 Key People

People make up organisations. Identifying the right people who have policy decision responsibilities will facilitate and accelerate any interaction with the government [5–8].

### 11.3.1 The Health Minister

The Minister for Health has ultimate responsibilities in health policies. Ministers have complex and challenging roles with parliamentary, public and policy demands from strategy formulation to addressing stakeholders' issues. In order to optimise the effectiveness of interaction with the Minister, it is critical to understand the minister's priorities and plans.

Since 1983, the Australian Commonwealth Government has appointed 12 Health Ministers:

| | | |
|---|---|---|
| Hon Greg Hunt | From 2017 | Coalition (Liberals and Nationals) |
| Hon Sussan Ley | 2014–2017 | Coalition (Liberals and Nationals) |
| Hon Peter Dutton | 2013–2014 | Coalition (Liberals and Nationals) |
| Hon Tanya Plibersek | 2011–2013 | Labor |
| Hon Nicola Roxon | 2007–2011 | Labor |
| Hon Tony Abbott | 2004–2007 | Coalition (Liberals and Nationals) |
| Hon Kay Patterson | 2001–2004 | Coalition (Liberals and Nationals) |
| Hon Dr. Michael Wooldridge | 1996–2001 | Coalition (Liberals and Nationals) |
| Hon Dr. Carmen Lawrence | 1994–1996 | Labor |
| Hon Graham Richardson | 1993–1994 | Labor |
| Hon Brian Howe | 1990–1993 | Labor |
| Hon Dr. Neal Blewett | 1983–1990 | Labor |

Healthcare policies interact with other portfolios within the Government as well. For example, the Minister for Human Services has responsibility for administration of Medicare and other social service payments to consumers. The Minister for Veteran Affairs has the responsibility in funding the health and welfare of returned personnel.

### 11.3.2 The Cabinet

The Cabinet is a collective of Prime Minister, Treasurer, Finance Minister and all senior Ministers who hold significant portfolio matters in their jurisdiction. Ministers are expected to work within their policy areas and within the allocated budget. New

ideas that have policy, regulatory or financial impacts for the Government will require approval by the Cabinet or its delegated authority. The Prime Minister, Premier or Chief Ministers of every Government is the chair of the Cabinet and has overarching policy oversight. The Treasurers are responsible for macro-economic policies financing, for example, tax while Finance Ministers have responsibilities of the Government's expenses.

### 11.3.3 Members of Parliament (MPs)

In 2018, there are 150 members of the House of Representatives of the Commonwealth Parliament, each representing one geographic area of Australia, which is independently reviewed by the Australian Electoral Commission [9]. The number of members and the geographic areas served in States and Territories governments vary and are governed by their respective electoral commissions. Federal members are elected for a 3-year term and when in parliament take part in debate on proposed laws and public policy, representing the views of the people in their electorate. In addition, there are 76 senators, 12 from each state and two each from the Australian Capital Territory and the Northern Territory, elected on a 6-year term. A Senator is a member of the Australian Senate, elected to represent a state or territory. Each member, whether in the House of Representative or the Senate, represents the voice of local constituents within their party and in the parliament.

### 11.3.4 Parliamentary Committees

Parliamentary committees investigate specific matters of policy or government administration or performance. The Commonwealth Government Standing Committee on Health, Aged Care and Sport may inquire into and report on any matter referred to it by either the House of Representatives or a Minister, including any pre-legislation proposal, bill, motion, petition, vote or expenditure, other financial matter, report or document.

They also provide an opportunity for organisations and individuals to participate in policymaking and to have their views placed on the public record and considered as part of the decision-making process.

### 11.3.5 Ministerial Office and Advisers

A team of ministerial office staff and advisers provides support for their respective minister. They assist in policy, media, parliamentary and administrative matters from policy advice, drafting speeches, event preparation and effective communication with the public, other ministerial offices, government departments and stakeholders. Their roles have grown over years and reflect the increased demands of the minister and their agenda.

The head of the ministerial office is the Chief-of-staff. Depending on the staffing allocation, responsibilities are further divided according to the size of the team. For example, individual advisers share responsibilities across different policies area from acute care, primary care and medical research in health. Ministerial staff have grown in importance and play active roles ensuring their ministers extend their capacity to advance the government's agendas.

## 11.4 Public Service

Public servants serve the elected government. Under the Australian Constitution, Commonwealth ministers are appointed under *Section 64* to administer departments. From the health policy and administration perspective, the Department of Health provides administrative support for the Health Minister.

The role of the public service is to implement government decisions and parliamentary legislation and advise the government on policy and administrative matters. The public service is apolitical and has traditionally operated under a system designed to ensure its independence and impartiality. It is openly accountable for its actions, within the framework of ministerial responsibility to the Government, the parliament and the Australian public.

The Commonwealth public service responsible for health is the Department of Health. It was

established in 1921 and has since undergone a number of changes in its name, function and structure. In broad terms, it has a diverse set of responsibilities with a vision aligned with those of the health professionals and the population: *Better health and wellbeing for all Australians, now and for future generations*. The stated role is to strengthen evidence-based policy advice, improving programme management, research, regulation and partnerships with other government agencies, consumers and stakeholders.

Under the *Public Service Act*, departmental secretaries are appointed to manage the department 'under the minister'. The Secretary is the head of the Department and has overall responsibility for the management and oversight of his or her portfolio.

The Australian Commonwealth Government has appointed nine secretaries for the Department of Health since 1984:

| | |
|---|---|
| Glenys Beauchamp | From 2017 |
| Martin Bowles | 2014–2017 |
| Jane Halton | 2002–2014 |
| Andrew Podger | 1996–2002 |
| Stephen Duckett | 1994–1996 |
| Anthony Cole | 1993–1994 |
| Stuart Hamilton | 1988–1993 |
| Anthony Ayers | 1987–1988 |
| Bernard McKay | 1984–1987 |

Like any organisation, the Health Department is typically organised according to policies and functions (Fig. 11.4). The head of the Department is called the Secretary or Director-General. They

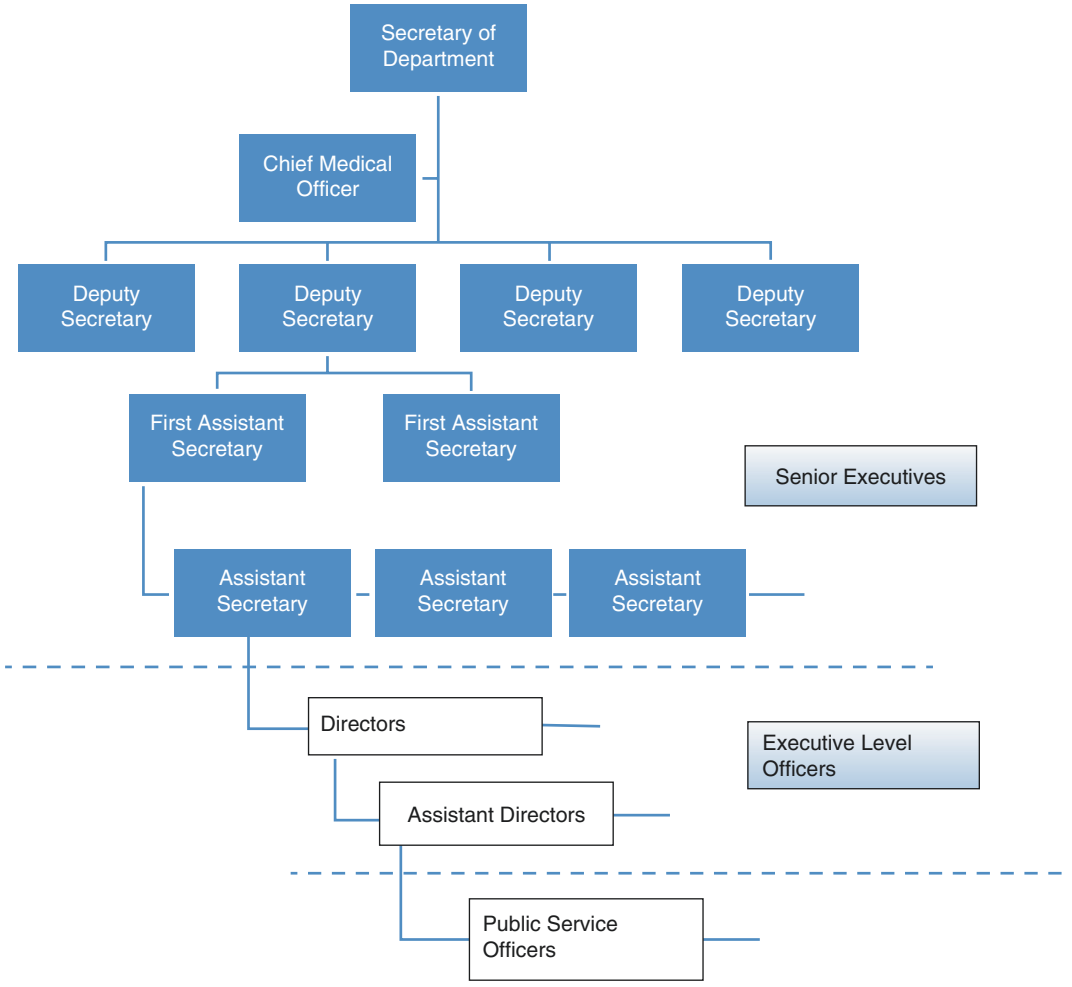



**Fig. 11.4** Typical organisation structure of a Commonwealth Department of Health

are the key links to the Health Minister, ministerial offices and provide key leadership to the department. He or she is accountable for the advice to the Minister and to the public through questioning by, for example, the Senate Estimates Committees. Reporting up is a group of senior executives called Deputy Secretaries, First Assistant Secretaries and Assistant Secretaries. In addition to their delegated authorities from the executives, they have prime responsibilities in determining resource allocation, engaging with stakeholders and ensuring objectives and compliance of policies are met. The senior executives are supported by executive level officers and administrative officers who have responsibilities in implementation, administration and evaluation of government programmes. In 2017, the Health Department employs about 3500 staff.

## 11.5 The Role of Doctors in The Political and Policy Environment

It is important to note that senior medical officers provide advice across the public service. The Chief Medical Officer is the most senior medical personnel providing advice to the Health Minister, the Department of Health and the Commonwealth Government. Within this department, other medical officers are also employed to provide policy and administration expertise. Medical professionals also hold senior positions in Departments of Defence, Home Affairs and Veteran Affairs.

Outside these departments, there are statutory agencies with specified functions as gazetted in law in which senior medical colleagues are key players. These agencies have designated roles and responsibilities and have specific public reporting requirements. Some of these key Commonwealth health agencies are:

- Australian Commission on Safety and Quality in Health Care (ACSQHC)
- Australian Institute of Health and Welfare (AIHW)
- Australian Organ and Tissue Donation and Transplantation Authority (AOTDTA)
- Australian Radiation Protection and Nuclear Safety Agency (ARPANSA)
- Cancer Australia (CA)
- Food Standards Australia New Zealand (FSANZ)
- National Blood Authority (NBA)
- National Health and Medical Research Council (NHMRC)
- Professional Services Review (PSR)

## 11.6 The States and Territories

As the system manager, states and territories health departments are co-ordinators for public health, crisis management and hospital and health service delivery. Organisation structures of state and territory health departments vary. The New South Wales (NSW) Ministry of Health has a central head office with policy functions plus separate agencies for innovation, information, clinical excellence and education and training. The Victorian Department of Health and Human Services is a large organisation with a broad portfolio beyond health.

To facilitate better local decision-making, many states and territories have moved to establish separate local or regional health or hospital bodies which organise and co-ordinate service delivery via a cluster of hospitals and health services as a network. These bodies are known as Local Health and Hospital Districts or Networks. Reporting by public hospital services to the boards of these entities and the state and territory departments of health also vary.

In 2015, the Commonwealth Government established 31 Primary Health Networks across Australia, which are organisations focused on facilitating better primary care and geographically designed to closely align with Local Health Districts, with the broad objective of better identifying population needs and procure services which bridge primary and acute care services closer to the patients.

## 11.7 Private Healthcare

Over 11.7 million (or over 45% of the population) Australians are covered by private health insurance with private hospital cover. The private health sector plays an important role to take the strain off the public hospital system. It gives the option to patients to be treated by his or her own doctor and allows more control over when and where to be treated. The private healthcare system has an array of health and hospital service providers, insurers and medical device manufacturers. It delivers over two-thirds of elective surgery in Australia.

Private healthcare is highly regulated by the Government. The *Private Health Insurance Act 2007* governs the incentives, operations and premium regulation of the sector.

In addition, the Government also has responsibilities in setting prostheses pricing through the independent Prostheses Listing Advisory Committee (PLAC) for all private patients. The Prostheses List is the list of surgically implanted prostheses, human tissue items and other medical devices that private health insurers must pay benefits for when they are provided to a patient with appropriate health insurance cover as part of hospital treatment or hospital substitute treatment, and there is a Medicare benefit payable for the professional service.

You can read much more about the private health sector in Chap. 8.

## 11.8 Professional, Consumers and Patient Groups

Professional, consumer and patient groups play a key role in advocacy, consultation and communication of policies between government and the community. Most of these organisations are not-for-profit, membership based and have specific remit to represent their own agendas and goals. As members of these organisations, they provide direct support and can act as a sounding board to resolve issues and channel ideas. These third parties are of particular interest to government as they have the ability to amplify or attenuate its policies and messages. But because of the large the number of professionals and community organisations, they compete to gain support and attention for their agendas. Some are more influential than others, with links to government, media and corporate bodies. Being able to identify the best organisation with the aligned objectives and cause is critical. When assessing the most appropriate body, review their credibility, policy alignment and leadership. Alliances are also formed based on different issues nowadays reflecting the dynamism of the health landscape.

Examples of groups are the well-established national advocacy bodies such as the Australian Medical Association, the Australian Nursing Federation, the Pharmacy Guild and allied health professionals peak bodies; the professional colleges such as the Royal Australasian College of Physicians, the Royal Australasian College of Surgeons, the Royal Australian College of General Practitioners and the Royal Australasian College of Medical Administrators; consumer groups such as Consumer Health Forum, the Heart Foundation and Diabetes Australia; and industry peak bodies such as Private Healthcare Australia, Australian Private Hospitals Association, Medicines Australia and Medical Technology Association of Australia and the Australian Healthcare and Hospital Association. For historical reasons, many peak bodies have strong presence in each state and territory.

## 11.9 Government Relations Consultants

Specialised knowledge in structure and process of government and public service have encouraged the growth of government-relations consultants who are professional specialists in advocacy and issues management. Many organisations choose to employ their own specialist staff with knowledge of the system to handle government-related issues. However, there are government relations firms and lobbyists, which provide services for stakeholders in navigating the parliament, govern-

ment, ministers, ministerial offices and public service. In recent years, the industry has also shifted to become more research-based. Some states and territories require lobbyists to be registered and adhere to a code of conduct.

## 11.10 Health Policy

Health policymaking is a complex process led by the government with significant interaction with the public service and health stakeholders [10, 11].

### 11.10.1 Policy Cycles

Policy development is closely linked to political and public service operation cycles.

The Australian democratic system allows voters to vote for their preferred local representative at elections. Election cycles vary between different governments. The Federal Government is conducted over a 3-year cycle with states and territories offering fixed and variable terms over 3 to 4 years. Ministers are appointed and sworn in after the government declared. Once this is commenced, the government and its departments will deliver and operationalise new policies and continue to conduct other businesses as usual.

Governments, like any organisation, operate in an annual budget operation cycle. In addition, governments operate in a natural political cycle between elections. Every government has its own style and culture but they also have prescribed processes, protocols and timelines to follow as determined internally and stipulated by laws. Understanding timing of government processes will assist policy formulation and decision-making within an organisation.

The most important process of governments is the budget. Like any business, revenue and expenses forecast is critical to the running of an organisation. The budget reflects the government's resource allocation against its priorities for the country (Fig. 11.5). The Treasurer of the Commonwealth Government usually delivers the budget on the second Tuesday in May every year. New policy initiatives and budget allocations will still require legislative approval in the Parliament before they become law and funds can be made available.

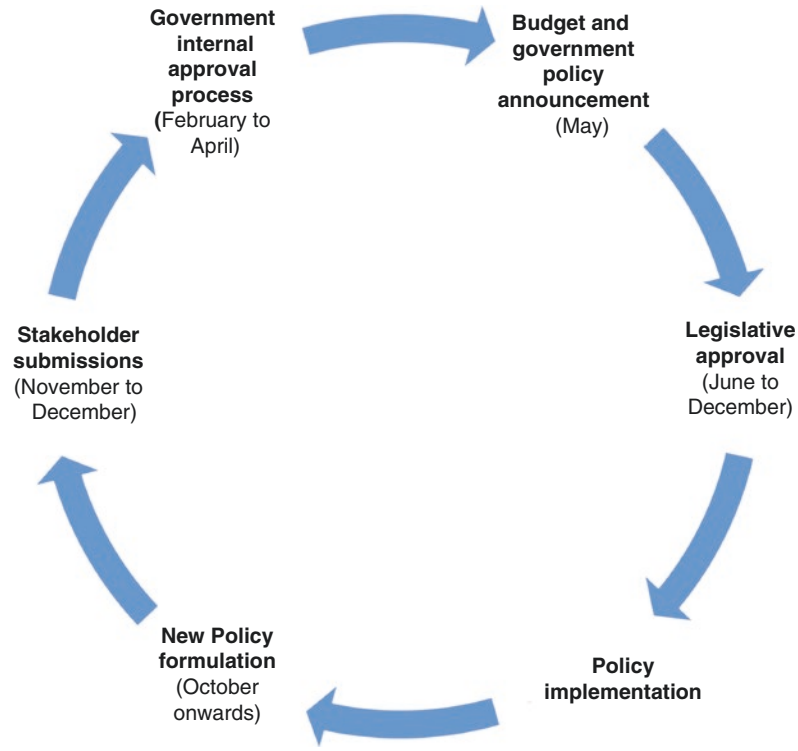



**Fig. 11.5** Budget cycle

The other significant time for policy formulation is the election. Major parties formulate and announce their policies with an aim to capture the attention of the public about their vision and their plans. Political parties can only fulfil their election promises by winning the election and then allocate resources in future budgets. For example, prior to the 2016 election, the Coalition promised to provide the Health Minister with more authority to list medicines recommended by the Pharmaceuticals Benefits Advisory Committee (PBAC) by lifting the threshold so that approval of medicines that do not cost more than $20 million in any of the first 4 years of its listing can be expedited. This promise was subsequently enacted after they were re-elected to government.

### 11.10.2 Policy Design and Process

Governments use both a *top-down* and a *bottom-up* approach in policy formulation. Some policies and details are solely driven by the Government of the day. Some, however, are reactive and formulated as a result of emerging day-to-day events. In practice, most policies are developed with input from bureaucracy, stakeholders and the community (Fig. 11.6). Every government is responsible for policy development from decision, formulation to implementation. A rigorous process is essential, so policies are balanced, appropriate resources are allocated and risks are addressed. This would allow assessment, prioritisation and evaluation prior to it becoming an official policy. Individuals, businesses and community groups are also invited to submit their ideas and views about 6 months before the budget every year.

The responsible portfolio Minister has the carriage to propose fully costed proposals to the Cabinet or its delegated authority for consideration. Since the 1983 Government, a dedicated Expenditure Review Committee (ERC), consisting of a panel of selected Ministers and MPs, has the critical role to consider new policy proposals. This intensive process is supported by the public service including the Department of Prime Minister and Cabinet or Premier and Cabinet, the Treasury and Department of Finance, also have to ensure that policy intents are strategic and coordinated across portfolios.

A good example of new government health *and* social services policy was *No Jab, No Pay*. Some parents refuse to vaccinate their children out of a concern that potential harms outweigh the benefits or because of particular moral or philosophical beliefs, but many others have failed to keep up-to-date with vaccination schedules as a result of practical difficulties in accessing services. To encourage better overall vaccination rate, the *No Jab, No Pay* package comprises three immunisation measures featured in the 2015 Budget with an aim at improving vaccination rates and reducing the spread of vaccine-preventable disease. These included the closing off of exemptions from the

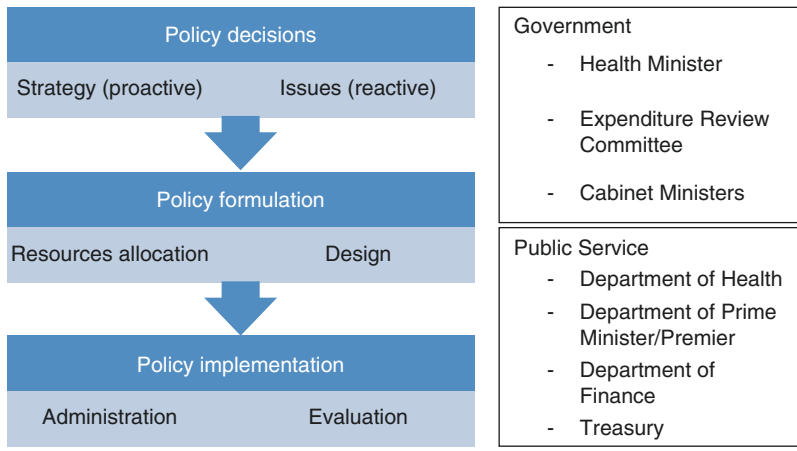



**Fig. 11.6** Policy roles: Government and public service

immunisation requirements for eligibility for the Family Tax Benefit Part A (FTB-A) end-of-year supplement, Child Care Benefit (CCB) and Child Care Rebate (CCR) payments. The Budget measure is primarily targeted at conscientious objectors, but also affects all those who receive child care subsidies or the FTB-A supplement and whose children's vaccination records are not up-to-date. The Budget also included $161.8 million over 5 years for new and amended listings to the National Immunisation Program (NIP) Schedule of free vaccines and provided $26.4 million over 4 years to improve immunisation coverage rates, particularly in children and adolescents by:

- Make an incentive payment to doctors and other immunisation providers when they identify a child who is overdue for vaccination and call them in for a catch up.
- Fund an awareness campaign to promote the NIP and address parents' concerns regarding immunisation.
- Expand the existing National Human Papillomavirus Vaccination Program Register to include all adolescent vaccinations delivered in schools under the NIP.

Any organisation or individual can approach the Government, ministers or any members of parliament to advocate and debate ideas at any time. However, the level of traction depends on government strategies and priorities, budgetary constraints and opportunity costs and competition against other worthy policies. Every portfolio has its own short-, medium-, long-term vision, goals and deliverables as outlined in their strategic plans. New, unsolicited proposals, which require a robust business case, often take time to refine and gain support. On the other hand, it is often difficult if proposals are advocated in isolation, out-of-sync with budgetary cycles and not congruent with the portfolio strategy.

Good execution and implementation of policy is integral to policy development. The public service has the vital role to ensure tax-payers' monies are used appropriately through good procurement and contract management. They also have the responsibility of ensuring programme objectives are delivered and government resources are accounted for through evaluation, audits and public reporting.

### 11.10.3 Working Together: Commonwealth and the States and Territories

Every government is sovereign in its own sphere. Elected officials and the public service are expected to deliver against their roles and responsibilities. However, opportunities exist for collaboration to improve the system with less waste and better outcomes.

In June 1968, a Conference of Commonwealth, state and territory health ministers agreed to form the Australian Health Ministers Council to meet at least twice yearly to discuss major health policies. The Council was renamed to the Council of Australian Government (COAG) Health Council on 13th December 2013.

The ministerial COAG Health Council is supported by the Australian Health Ministers' Advisory Council (AHMAC). AHMAC comprises the secretaries and directors-general of every government health department, and the New Zealand health authorities and the Commonwealth Government Department of Veterans Affairs. They pursue an agreed agenda in policy, service and programme delivery through six principal committees, which manage the business of AHMAC and provide advice.

- National Health Information and Performance Principal Committee (NHIPPC)
- Health Workforce Principal Committee (HWPC)
- Mental Health and Drug and Alcohol Principal Committee (MHDAPC)
- Hospitals Principal Committee (HPC)
- Community Care and Population Health Principal Committee (CCPHPC)
- Australian Health Protection Principal Committee (AHPPC)

In the case of public health crisis, established mechanisms are in place for all governments to collaborate and activate their plans and responses.

## 11.11 Communication with The Minister

Workload of a minister is large with commitments across the policy portfolio, the parliament, the political party and the electorate. In addition to officiating functions and duties, a significant part of the minister's job is to communicate effectively by writing and responding to official and personal correspondence. This ranges from letters, briefs and notes from the department and stakeholders to texts, emails or voicemails.

The ministerial office and the public service provide critical support for the Minister in triaging, managing and responding to these correspondence. As Ministers can request briefings for issues and meetings from the public service, effective communication with external stakeholders occurs only when communication channels are open both ways.

The etiquette in engaging with ministers varies depending on the minister and the rules set out by the Government. Unless the correspondence is personal, most written materials to ministers including emails are shared with their office staff and the public service so they can be followed up and responded. Written and electronic correspondence has the potential to be used as evidence and subject to the relevant Freedom of Information laws. As such, every correspondence should be treated with care and respect with specific and clear request. However, given the crowded policy agenda, a request for consideration of new policy, for example, does not guarantee its admission into a decision-making process. Understanding their priorities and appetite to deal with an issue is important.

## 11.12 Media

Effective public communication is a critical element of a health system. Maintaining a dialogue with the public demonstrates ongoing commitment and relationship [12–17]. This enhances trust, which is a crucial ingredient to the society's effective response to a crisis or emergency. While the government, public service and organisations can quickly disseminate information directly to consumers and citizens with electronic tools, the more trusted channel is still through the media. *The Fourth Estate*, as it is most commonly known, is a powerful industry and underlies the independence of news media or the press. Knowing how the media and public relations work will help understanding of an issue with public interest, improve dealing with external questions and organise campaigns. On the other hand, working with media can help to educate patients and those in the community, and may facilitate promotion and positioning of a body or an issue.

### 11.12.1 Print and Broadcast Media

Controls over media ownership in Australia are laid down in *the Broadcasting Services Act 1992*, administered by the Australian Communication and Media Authority. Australia has a high concentration of media ownership compared to other western countries.

Ownership of newspapers nationally and across of each capital city are dominated by two corporations, News Corporation and Fairfax Holdings. News Corporation titles account for nearly two-thirds of metropolitan circulation and Fairfax-owned papers account for a further quarter. *The Australian* and *The Australian Financial Review* are the only national newspapers. There are 10 state/territory daily newspapers, 37 regional daily newspapers and hundreds of other regional and suburban newspapers. Many newspapers outside of capital cities are printed once or twice a week. Print news media still reach more readers than digital platforms do despite year-on-year decline in their readership. Over 4 weeks, 14.5 million people read a printed newspaper in Australia. Table 11.1 shows the average issue readership of major newspapers across the country.

There are three major commercial television networks: the *Seven Network*, the *Nine Network*, and *Network Ten* and two public television broadcasters, the *Australian Broadcasting*

**Table 11.1** Newspapers Average Issue Readership ('000s) In Australia (Nov 2016)

| Newspapers | Monday–Friday | Saturday | Sunday |
|---|---|---|---|
| National | | | |
| The Australian | 476 | 564 | |
| Australian Financial Review | 317 | 126 | |
| New South Wales | | | |
| Daily Telegraph | 990 | 760 | |
| Sydney Morning Herald | 654 | 706 | |
| Sunday Telegraph | | | 1076 |
| Sun-Herald | | | 597 |
| Australian Capital Territory | | | |
| Canberra Times | 81 | 78 | 50 |
| Victoria | | | |
| Herald Sun | 1227 | 1018 | |
| The Age | 578 | 573 | |
| Sunday Herald Sun | | | 960 |
| Sunday Age | | | 573 |
| Queensland | | | |
| Courier Mail | 593 | 569 | |
| Sunday Mail | | | 762 |
| Gold Coast Bulletin | 101 | 90 | |
| Townsville Bulletin | 83 | 79 | |
| Cairns Post | 77 | 77 | |
| South Australia | | | |
| Adelaide Advertiser | 397 | 408 | |
| Sunday Mail | | | 429 |
| Western Australia | | | |
| West Australian | 619 | | |
| Weekend West | | 599 | |
| Sunday Times | | | 486 |
| Tasmania | | | |
| The Mercury | 97 | 102 | |
| The Examiner | 62 | 58 | |
| The Advocate | 44 | 42 | |
| Sunday Tasmanian | | | 88 |
| Sunday Examiner | | | 52 |
| Northern Territory | | | |
| Nt News | 60 | 46 | |
| Sunday Territorian | | | 34 |

From emmaTM conducted by Ipsos MediaCT, People 14+ for the 12 months ending Nov 2016, Nielsen DRM Nov 2016, People 14+ only https://www.emma.com.au/reports, with permission

*Corporation* and *Special Broadcasting Service*. Approximately 25% of the population also has pay television. In addition, there are over 250 operational commercial radio stations and over 300 community or publicly funded radio stations. The reach of both television and radio is still large with news programmes attracting very large audience.

### 11.12.2 Digital Media

Traditionally, media is focused and conducted by print, television and radio. However, the industry has undergone rapid change, propelled by digital technology, evolving devices and better connectivity. The importance of changes in digital engagement and public relations should not be

understated as it has become essential operations in any organisation.

In Australia, *News.com.au* holds the top position with a unique audience of 5.8 million. *Nine.com.au* is at second place with a unique audience of 4.7 million and *ABC News* websites are in third spot (4.6 million).

### 11.12.3 Social Media

More than 90% of Australians aged 18 years and over engaged with social networking content via a smartphone. 12.7 million Australians 18 years and over accessed a social networking site or app via a smartphone device. The audience, pages per view and the average time spent is significantly higher on *Facebook* compared to other social media sites.

### 11.12.4 News Cycle

Newspapers, TV stations, radio and digital operations all operate on different news cycles that are inextricably interlinked. A perfect event promoted at the wrong time is often impractical. On the other hand, a bad event at the right time in the news cycle often gets promoted. Medical leaders must be cognisant of media deadlines. Failing to meet basic commitment decreases personal and organisational credibility and opportunities for future engagement.

Newspapers are still one of the most respected sources of journalism. They are printed once a day and are most influential in the morning by providing lead articles for other media outlets including TV and radio. Increasingly, newspapers have adopted electronic communication to enable an interactive 24-hour news cycle approach (Fig. 11.7).

Television news is most authoritative in the evening when the audience is high. Main news bulletins between 5 and 7.30 pm across all television networks provide a summary of key events of the day and attract audience in the millions. Radio news is the most prolific with hourly headlines during the day. Talkback programmes are popular with some segments of the community and rate very well. Radio still remains a powerful medium in Australia, especially at breakfast and evening programmes.

### 11.12.5 Health Media

In Australia, there is limited specialised daily news services dedicated solely to report in the health and medical sector.

In General Practice, the *Australian Doctor*, *6 minutes and The Medical Republic* separately publish digital and print editions containing issues and politics in primary care plus stories of clinical and professional interests.

From a clinical perspective, individuals, colleges and advocacy bodies publish scientific articles, opinions and stories embedded in their own professional newsletters, journals and publications. The Australian Medical Association publishes the *Medical Journal of Australia* monthly which often generates interests in mainstream media.

A significant positive impact electronic communication has on the profession is on education. Many organisations have moved to deliver education material online including access to professional development modules through their own professional websites. Informally, social media like *Facebook* and *Twitter* as well as blogs have allowed doctors to be part of a network of healthcare professionals, especially beneficial to those who live in more remote parts of the country.

### 11.12.6 Engaging with Media

One of the conventional ways to engage with journalists is by providing a media release. The purpose is to gain the interest of the traditional media outlets and journalists, provide the organisation's preferred position of the story and a single point of organisation's contact for follow-up. The advantage of using media release is that words can be used and referenced.

Most organisations have a person designated, such as a public relations or media officer, to

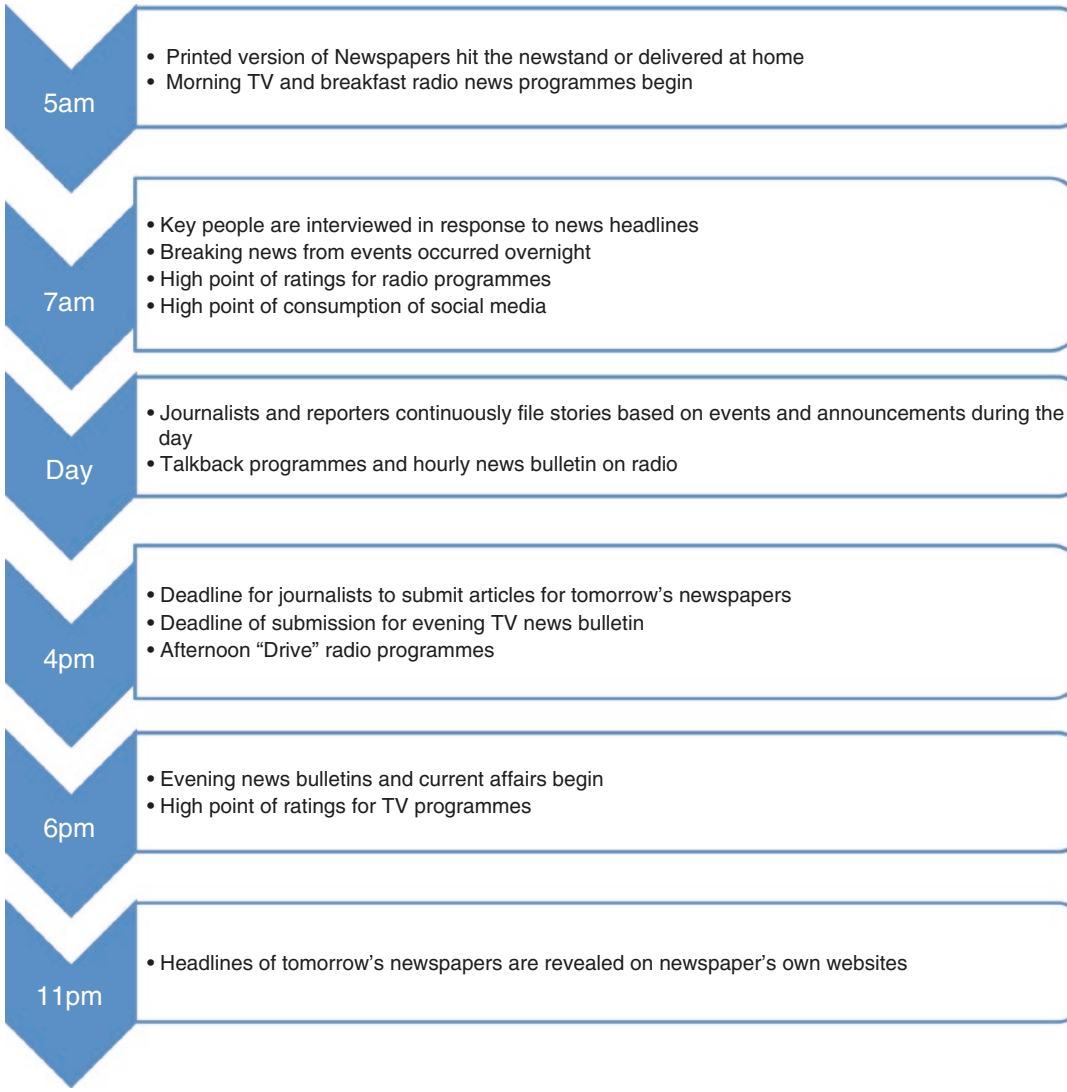



**Fig. 11.7** The daily media cycle

interact with the media so the communication can be planned and prepared well in advance. Promoting and publicising work through broadcast and print media is competitive. Stories should have broad appeal with the intention of attracting a large audience.

Emails and social media enable quick and easy distribution of information, and also allow people and organisations to engage with a large audience. However, there are inherent risks that should be weighed against the benefits, primarily due to permanency of electronic information. Special attention should be made in situations where patients are identifiable and advertising or endorsement is involved. An innocuous post or tweet can have unforeseen impact as once the information is posted, it is virtually impossible to permenantly remove. Once posted, it can be copied and forwarded onto others, and potentially presented in a different context. Health professionals need to be aware that information circulated on social media may end up in the public domain, and remain there, irrespective of the intent at the time of posting. Emails should be treated as official document and therefore have potential medico-legal implications. In social

media, the lines of personal and professional use are often blurred with high personal and professional reputation at stake.

Organisations including employers, professional bodies and medico-legal firms have developed protocols and guidelines in regard to electronic communication and, in particular, social media. Many provide guidance on best etiquette and appropriate use in an evolving space. For health professionals in Australia, there is a national policy which applies to all registered health practitioners. The Australian Health Practitioner Regulation Agency (AHPRA), in consultation with all professional boards, has developed a national policy designed to help practitioners understand their obligations when using social media. In summary, health practitioners should remember that the *National Law*, their National Board's code of ethics and professional conduct (the Code of conduct) and the Guidelines for advertising regulated health services (the Advertising guidelines) apply when using social media.

Registered health practitioners should only post information that is not in breach of these obligations by:

- Complying with professional obligations.
- Complying with confidentiality and privacy obligations (such as by not discussing patients or posting pictures of procedures, case studies, patients, or sensitive material which may enable patients to be identified without having obtained consent in appropriate situations).
- Presenting information in an unbiased, evidence-based context.
- Not making unsubstantiated claims.

### 11.12.7 Communication During a Crisis

Media management is an essential part of a communication plan during a health crisis, a scare or a disaster. The public has heightened awareness during this period. Information obtained by individual, family and community at this time allow and empower citizens to make choices as it relates to personal safety and perceived risks.

In disaster, media events are critical to enable and mobilise a population responsively. Effective interaction with the media can reduce losses as timely dissemination of information should act as warnings before the event. The media can be used to convey instructions to the public, reinforce efforts to gain broad public support, reduce the number of enquiries and stimulate donation and funding campaigns.

Nowadays, electronic media allows instant update during a crisis. In addition, it is important for the designated person to get out to the media early and own the issue with confidence. The spokesperson must have honesty and integrity to ensure expectation is met across the community and enable any information vacuum be filled. Most importantly, he or she is able to communicate to the audience what is being done and the situation is under control. If the acute episode is well handled, it will engender trust and improve community reaction in the event of any future crisis.

You can read Chap. 9 for more information on crisis management.

## 11.13 Ready Reckoner/Reflections

- Governments play dominant roles in formulating and shaping health policies in Australia.
- Australia is a federation whereby power and authority is shared between Commonwealth and State parliaments, governments and courts. Statutory agencies and inter-government committees also have specific roles.
- The private health system, professional, consumer and patient groups are important players of our health landscape.
- Health policy development is closely linked to political and public service operation cycles.
- Identifying the right people who have policy decision responsibilities will facilitate and accelerate any interaction with the government. The Minister for Health has ultimate responsibility of health policies of the government.
- Workload of a government minister is large with heavy commitments in the policy portfolio, the parliament, the political party and the electorate.

- Effective and strategic communication in both oral and written means is essential. The Prime Minister or Premier, Cabinet ministers and their advisers are in critical positions to advice and shape policy development.
- The role of the public service is to support the government and advise on policy matters, implement government decisions and parliamentary legislation and administrate government programmes.
- Knowing how the media works will improve the ability to deal of an issue with public interest and can help to educate patients and those in the community.
- Newspapers is still one of the most respected sources of journalism content and provides the lead stories for other media outlets. The reach of both television and radio is large with news programmes attracting large audience.
- The importance of changes in electronic, digital and social media engagement and its use in public relations should not be understated as it has become essential operations in any organisation. However, professionals should be aware of the risks and benefits involved.
- Media management is an essential part of a communication plan during a health crisis, a scare or a disaster.

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# Medical Workforce Management

# 12

Anjali Dhulia

**Learning Objectives**
Readers will gain an understanding of key aspects of:

- Credentialling and Defining Scope of Clinical Practice (CSoP) including
  - Historical reasons for requirement of CSoP
  - Establishing a governance system for CSoP
  - Implementing key operational processes for CSoP
  - Documentation requirements for CSoP
  - Processes for Recredentialling, Emergency Credentialling, Temporary Credentialling, Appeals process and Credentialling for New Technologies
- Performance Enhancement or Performance Development including
  - Importance of Performance Development
  - The continuous Performance Development cycle commencing at the time of appointment
  - Conducting a Performance Development meeting
  - Pitfalls in establishing a Performance Development system
- Performance Management including
  - Importance of setting performance standards in an organisation
  - Factors contributing to underperformance
  - Process of performance management
- Managing Disruptive Workplace Behaviour including
  - Definitions of disruptive behaviour
  - Factors contributing to disruptive behaviour
  - Process of managing disruptive behaviour
- Managing Health and Wellbeing of Doctors including
  - Introduction of the concept of "Flourishing" as a model for complete mental health
  - Understanding the buffering and amplifying effects of individual and organisational risk factors and protective factors through a conceptual model
  - Introduction of a conceptual framework for a Workplace Complete Mental Health Strategy

## 12.1 Credentialling and Defining Scope of Clinical Practice

**Definitions**: as per the National Standard for Credentialling and Defining Scope of Clinical Practice (the National Standard) [1].

- **Credentialling** refers to the formal process used to verify the qualifications, experience, professional standing and other relevant professional attributes of medical practitioners for the pur-

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E. Loh et al. (eds.), *Textbook of Medical Administration and Leadership*,
https://doi.org/10.1007/978-981-10-5454-9_12

pose of forming a view about their competence, performance and professional suitability to provide safe, high-quality healthcare services.

- **Defining the scope of clinical practice** follows on from credentialling and involves delineating the extent of an individual medical practitioner's clinical practice within a particular organisation based on the individual's credentials, competence, performance and professional suitability, and the needs and the capability of the organisation to support the medical practitioner's clinical practice.
- **Recredentialling** is the formal process used to re-confirm the qualifications, experience and professional standing (including current status with respect to professional registration, disciplinary actions, indemnity insurance and criminal record) of medical practitioners, for the purpose of forming a view about their ongoing competence, performance and professional suitability to provide safe, high-quality healthcare services.

### 12.1.1 Introduction

Governing bodies of health services are required by their funders and regulators as well as by legislation to ensure that all medical practitioners who have independent responsibility for patient care are appropriately credentialled and have their scope of clinical practice defined in accordance with both their level of skill and experience and the capability of the health service. This reflects the reasonable expectations of patients and communities, which should be respected if community confidence in the health care system is to be maintained. It also reflects the healthcare organisation's and medical practitioner's mutual responsibility to provide safe high-quality healthcare services to the community.

However, this was not always the case. Historically the medical profession was largely self-regulated. Specialty training colleges set standards for education and training and assessed the practitioner as competent and able to provide independent clinical care once they had successfully met the requirements of training. Once deemed as competent to practice independently, their clinical practice was monitored within the profession by a system of review by peers. High-profile inquiries into poor patient outcomes like the Bristol Royal Infirmary Inquiry in 1999 [2] and the Bunderberg Hospital Commission of Inquiry in 2005 [3] led to the erosion of trust in the profession for self-regulation and paved the way for external regulation to protect the public and ensure that healthcare is provided by appropriately trained medical practitioners who are fit to practice.

A robust system of credentialling and defining scope of clinical practice of medical practitioners ensures that this key clinical governance responsibility is upheld. These processes also protect medical practitioners by ensuring that the environments within which they practice support and facilitate safe and high-quality care. Credentialling and defining scope of clinical practice are essential elements of the initial appointment and ongoing relationship the organisation has with its medical practitioners. It forms part of the overarching organisational clinical governance systems that are designed to ensure the delivery of high-quality health services and minimise risk of harm to the patients.

Medical practitioners' professional responsibility to provide safe patient care is outlined in professional registration standards and codes. This includes the obligation of working within their area of competence and training. By matching the medical practitioners' credentials and competence to the organisation's capability to provide services the organisation assists the medical practitioner to work within their area of competence. In other words, the practice of the medical practitioners is supported by the organisational capability.

### 12.1.2 Policy Framework

The National Standard for Credentialling and Defining Scope of Clinical Practice (the Standard) developed by the former Australian Council for Safety and Quality in Health Care in 2004 provides the framework for States and Territories and health services to develop and implement systems for credentialling and defining scope of practice of their medical practitioners.

Since then most state departments of health have their own credentialling and defining scope of practice policies for public health services. In general, these policies mandate public health services to ensure that medical practitioners with responsibility for independent medical care are credentialled and have their scope of clinical practice defined at appointment to the health service. Most states also require that there is a process for regular review of scope of practice as a part of an annual performance appraisal and a formal process for recredentialling every 3 to 5 years.

Private hospitals are licensed to operate by the state health departments under state and territory laws and regulation. While state department policies on credentialling and defining scope of clinical practice do not apply to private hospitals, to maintain the license to operate, private hospitals are required to comply with legislative requirements, relevant professional standards, relevant guidelines, current best practice and occupational health and safety standards. In addition, contracts with health funds drive the need for having good systems for credentialling by requiring that private health services maintain accreditation status against safety and quality accreditation standards.

The National Safety and Quality Health Services Standards also require both private and public health services to have a system in place to define and regularly review the scope of practice of the clinical workforce [4]. In addition, the Standards also require that health services have mechanisms in place to monitor that the clinical workforce is working within their scope of practice.

### 12.1.3 Approaches to Defining the Scope of Clinical Practice

The Standard suggests the following approaches for defining Scope of Clinical Practice.

- **Checklist**: Developing detailed checklist of all the clinical services, procedures, interventions and/or conditions that can be supported from which medical practitioners can request their scope based on their training and competence. Some large organisations use the Medical Benefits Schedule as a framework for developing these lists.
- **Categorisation**: Certain specialties can be subdivided into broad categories with each category comprising of a set of procedures with some common characteristic. For example, within the discipline of cardiology the scope may be categorised as interventional cardiology, electrophysiology and general cardiology. Surgery may be categorised as general surgery, upper gastrointestinal surgery and colorectal surgery.
- **Core**: Core scope of clinical practice refers to the range of clinical activities within a specialty or subspecialty that any appropriately trained medical practitioner would be expected to be competent to perform. For example, the core training of the Royal Australian and New Zealand College of Radiologists makes fellows eligible to perform basic radiological procedures. To undertake more complex interventions like neuro-interventional procedures or vascular interventional procedure additional training is required with the Interventional Radiological Society of Australasia.
- **Descriptive: The medical practitioner requesting a scope of clinical practice describes in** narrative format, the procedures that they would like to perform based on their training and competence.
- **Combination**: The most common would be a core scope of practice with a checklist of additional procedures that the practitioner is able to demonstrate competence. For example, a

Fellow of the Royal Australasian College of Surgeons may start with a core surgical scope of practice but later add laparoscopic surgery to their practice.

### 12.1.4 System for Credentialling and Defining Scope of Clinical Practice

#### 12.1.4.1 Principles

Processes of credentialling and defining the scope of clinical practice of medical practitioners should:

- Be conducted with the objective of ensuring the safety and quality of healthcare services.
- Uphold the principles of equity and merit.
- Operate according to the rules of natural justice and procedural fairness.
- Comply with relevant laws including those governing health services provision, privacy, competition, whistleblowing and equal opportunity.
- Be transparent, to maintain patients and the community confidence.
- Be undertaken by professional peers, who can verify credentials, evaluate competence and performance, and recommend the appropriate scope of clinical practice.

#### 12.1.4.2 Governance

Processes of credentialling and defining the scope of clinical practice of medical practitioners should be integrated within overarching clinical governance systems.

**Governing body**. Role of the governing body or Board of Directors with respect to credentialling and defining the scope of clinical practice of medical practitioners can be summarised as follows:

- To demonstrate strong leadership and commitment to ensuring that health care is provided by appropriately credentialled medical practitioners working within their scope of practice in an environment that supports the practice.
- To establish comprehensive governance systems for effective processes of credentialling and defining the scope of clinical practice of medical practitioners.
- To formally delegate authority for implementing and monitoring the performance of its governance systems of credentialling and defining the scope of clinical practice of medical practitioners to an accountable executive.
- To ensure that it receives regular, systematic reports on the effectiveness of processes of credentialling and defining the scope of clinical practice of medical practitioners.

**Accountable Executive**. The Chief Executive Officer is usually the accountable executive who may formally delegate this responsibility to the Chief Medical Officer, Head of Human Resources, Director of Medical Services or any other senior managerial role depending on the size and structure of the organisation. This role must ensure that

- Resources are allocated to implementing and monitoring the process of credentialling and defining the scope of clinical practice.
- Structures for implementing the process are set up including organisational Credentialling and Scope of Clinical Practice Committee (however named) with clear terms of reference, administrative supports, meeting schedules and record keeping systems.
- Clear policies and procedures are developed, implemented and regularly reviewed.
- Key performance indicators to monitor the effectiveness of the process are developed, measured and reported on a regular basis.

### 12.1.5 Credentialling and Scope of Clinical Practice Committee (The Committee)

The Committee structure will vary depending on the size and structure of the organisation. In general, the Committee must have the relevant expertise to be able to assess the medical practitioner's competence to perform the role and delineate the appropriate scope of clinical practice.

The role of the Committee includes:

- To provide advice and endorse the organisational policies and procedure for credentialling and defining scope of practice.
- To determine the information to be requested from an applicant for appointment to a specific role.
- To determine the minimum credentials required to fulfil the duties of a specific position.
- To review and endorse the credentials of applicants and approve the appropriate scope of clinical practice based on the provided credentials.
- To provide advice on matters related to complaints and concerns about a medical practitioner's competence or scope of practice.

The membership should include:

- Chair—usually the Chief Medical Officer or the role accountable for credentialling and defining the scope of clinical practice.
- Medical practitioners from a range of specialties.
- Human Resources department representative.
- Professional college or university representative as required—desirable.
- Consumer representative—desirable.

### 12.1.6 Policy and Procedure

Policy on credentialling and defining the scope of clinical practice that applies to all medical practitioners with independent practice rights within the organisation should be formally adopted. This policy should comply with all relevant legal requirements including relevant State/Territory and Commonwealth legislative requirements.

The policy should cover the following details:

- Specify the accountable executive to whom the responsibility to ensure effective processes of credentialling and defining the scope of clinical practice has been delegated by the governing body.
- Provide for establishment of the organisational committee that assumes responsibility for credentialling and defining the scope of clinical practice of medical practitioners.
- Provide for establishment of an Appeals Committee to be convened when required and describe the process for appeals.
- Outline the process for credentialling and defining scope of clinical practice including in emergency situations and on a temporary basis when required.
- Define the timeframe and process for recredentialling.
- Define the process for credentialling when new technology or clinical practices are introduced within the organisation.
- Define the circumstances under which an unplanned review of a medical practitioner's credentials and or scope of clinical practice may be initiated.
- Outline the circumstances and process for suspension, temporary or permanent, in part or full, of a medical practitioner's right to practise within the organisation.
- Describe the process for appeals.
- Specify the extent to which the organisation will disseminate information about each medical practitioner's authorised scope of clinical practice.
- Describe how the process should be documented.
- Describe the process for monitoring the effectiveness of the credentialling and defining scope of practice process including an audit framework and schedule.

### 12.1.7 Process of Credentialling and Defining Scope of Clinical Practice

The operational process for credentialling and defining scope of clinical practice forms part of the appointment process and different models may exist depending on the governance structure, size, and complexity of the organisation. (Table 12.1).

**Table 12.1** Key structures, processes and outcomes for a robust credentialling system

| Structure (role/group/committee) | Process Credentialling and Defining Scope of Clinical Practice | Outcome |
|---|---|---|
| Medical Leader to whom the new position will report.<br>Medical leader may seek advice from relevant colleges, societies or expert members of the position. | Development of the position description and determination of the minimum credentials to be considered for the position. | Decision about appropriate credentials for the position is made. |
| Medical Leader assisted by administrative support. | Advertisement and review of applications to shortlist suitable candidates who have the required credentials. | Preliminary check of credentials done and suitable candidates shortlisted for interview. |
| Appropriately convened interview panel with relevant expertise. This should include the Medical Leader, human resource representative, relevant multidisciplinary team representatives (nursing, allied health), experts like college or university representatives and medical administration representatives. | Interview process to select preferred candidate. | Panel with required expertise interviews the shortlisted candidates and makes an informed decision about the suitability of the candidate for the role. |
| Medical Leader assisted by administrative support. | Scrutiny of relevant documents for verification of credentials and reference checking. | Assurance that the preferred candidate has the required credentials and positive references for the job. |
| Medical Leader. | Job offer made to the preferred candidate. | Formal job offer made for candidate to accept. |
| Applicant. | Request for scope of practice by the successful candidate. | Applicant exercises their judgment and self-assessment of their competence and requests appropriate scope. |
| Medical Leader/group of peers working in the same field/ Credentialling and Scope of Practice Committee. | Review of requested scope of practice and assessment against credentials and recommendation of the appropriate scope of practice to the relevant organisational Committee/Executive/Governing body. | Peers working in the same field make an informed decision about appropriate scope of practice. |
| Credentialling and Scope of Practice Committee/Accountable Executive/ Governing body. | Endorsement of the scope of clinical practice. | The organisation fulfils its obligation to ensure competent professionals working within their approved scope of practice provide health care. |

### 12.1.8 Documentation

Documentation related to the process of credentialling and defining scope of practice must be maintained and stored as per legislative requirements and organisational policy.

Detailed minutes of Committee processes and decisions must be maintained and all decisions must be formally communicated to applicants in writing.

### 12.1.9 Information for Credentialling That Must Be Provided by the Medical Practitioner

#### 12.1.9.1 Essential Documentary Evidence

- Current professional registration which is now available from the Public Register of Health Professionals from the Medical Board of Australia.

- Evidence of relevant education and training including certified copies of all diplomas, degrees and recognised post-graduate qualifications.
- Evidence of Fellowship of relevant professional college, membership of associations or societies.
- Information about relevant past and continuing health care-related employment. The performance at recent employment should be validated with reference checking.
- Evidence of participation in continuing medical education programmes.
- Evidence of current professional indemnity insurance and its type and scope.
- Relevant safety clearances including police check and working with children check.
- Adequate identity documents.

#### 12.1.9.2 Information Usually Required in Curriculum Vitae That Can Be Then Validated by Reference Checks

- Information on clinical activity undertaken in recent employment and outcome of that activity.
- Evidence of experience in teaching and research, where applicable.
- Evidence of experience in medical leadership positions, where applicable.

#### 12.1.9.3 Declarations About Relevant Past Conduct and History

- Declaration regarding any prior change to the defined scope of clinical practice, or denial, suspension, termination or withdrawal of the right to practise, other than for organisational need and/or capability reasons, in any other organisation.
- Declaration regarding any prior disciplinary action or professional sanctions imposed by any registration board.
- Declaration regarding any criminal investigation or conviction.
- Declaration regarding the presence of any physical or mental illness that could affect the medical practitioner's ability practice safely or competently.

### 12.1.10 Recredentialling

The process of recredentialling ensures that credentials are verified periodically and relevant information updated for the organisation's record. It also provides an opportunity for the medical practitioner and their medical leader to review their scope of practice and make necessary alterations to it based on their current personal and organisational circumstances. New procedures may be added to the scope if appropriate qualifications and experience has been gained. Procedures may be dropped from the scope of practice. Some of the reasons for doing this may be because of the practitioner's decision to wind down or change their practice, change in organisational scope where the service is no longer performed or other health or competence-related reasons.

Most State policies require that recredentialling is performed every 3-5 years. Organisations may undertake this in conjunction with their contract renewal process. Organisations with permanent ongoing contracts will need to undertake the process separately.

#### 12.1.10.1 Information Required for Recredentialling

- Current professional registration, which is now available from the Public Register of Health Professionals from the Medical Board of Australia. However, it is recommended that organisations have a process for checking currency of registration more frequently. It is possible to set up real time alerts for any changes to registrations on electronic systems used for Credentialling.
- Evidence of any additional education and training undertaken, and any endorsement or accreditation awarded by a professional college, association or society since the previous declaration.
- Update on professional activities undertaken such as clinical audits, peer review activities and continuing medical education programmes since the previous declaration.
- Request for change to scope of clinical practice and supporting documentation justifying the request.

- Evidence of the type and scope of current professional indemnity insurance.
- Declaration that there has been no change to the previous information provided regarding:
  - Scope of clinical practice, including denial, suspension, termination or withdrawal of the right to practise, other than for organisational need and/or capability reasons, in any other organisation.
  - Disciplinary action or professional sanctions imposed by any registration board.
  - Criminal investigation or conviction.
  - Presence of any physical or mental illness that could affect the medical practitioner's ability practice safely or competently.
- In case there have been changes a new declaration describing the specific changes to the information previously provided is required. However organisational processes must require medical practitioner to inform the organisation of any changes to professional status at the time that it happens and not rely on the 5 yearly recredentialling process.

### 12.1.11 Emergency Credentialling

At times of emergencies due to natural disasters, mass casualty events or pandemics the increased requirement for medical services may require health services to allow medical practitioners whose credentials have not been formally reviewed and verified according to the organisation's standard policy to assist in the provision of clinical care.

This process should involve

- Verification of identity through inspection of relevant documents, for example, a driver's licence with photograph.
- Verification with the relevant professional registration on the public register.
- Confirmation with a member of senior management of the organisation nominated by the medical practitioner as their most recent place of appointment, to verify claimed employment history and good standing.
- Assessment as soon as possible of the medical practitioner's available credentials by a senior medical practitioner who practises in the same specialty area.
- Confirmation as soon as practicable by at least one professional referee of the medical practitioner's competence and good standing.
- Detailed documentation of the process and decisions.

Regular credentialling process must follow as soon as reasonably practicable. The scope of practice in this situation is restricted to that required for the specific emergency.

### 12.1.12 Temporary Credentialling

Occasionally appointments may need to be expedited to allow continued service delivery as when locums and other medical practitioners are appointed on a short-term basis to provide health care services. In such situations organisations may decide to authorise an appropriate senior manager and senior medical practitioner to undertake necessary assessment and verification of credentials and allow the practitioner to commence clinical practice without waiting for the final endorsement of the Credentialling and Scope of Practice Committee.

To ensure safety and minimise risk this process requires the authorised manager to

- Interview the applicant
- Verify all information required from applicants for initial credentialling
- Define the applicants scope of practice on a time limited basis
- Document the process and decisions

The process must be completed as per organisational procedure and referred to the next meeting of the Committee responsible for credentialling and defining the scope of clinical practice, for formal consideration and endorsement.

### 12.1.13 Appeals Process

To uphold the principles of natural justice it is required that an appeals body that is independent of the Credentialling and Scope of Clinical Practice Committee is set up. The appeals body should advise the governing body directly.

Appeals may be made in the following circumstances

- Dispute over credentials
- Rejection of a scope of practice request
- Decision to change the scope of practice

Suggested membership of the appeals body

- Member of senior management
- Senior independent member of medical staff with expertise in the relevant area of practice
- Relevant college representative

#### 12.1.13.1 Process of Appeal

- Process for appeal must be clearly outlined in the credentialling and defining the scope of clinical practice policy.
- Appeals must be made within the specified interval from the date of the decision.
- Appeals must be made in writing. It is recommended that an appeals form is developed to ensure all required information is provided to the committee.
- The appeal should be addressed to an agreed organisational representative independent of the Credentialling Committee. This may be the Chief Executive or another Senior Manager.
- The Organisational representative should convene the appeals body with the necessary expertise. The appeals body may decide to interview the appellant and relevant other individuals to gain a better understanding of the dispute.
- The decision of the appeals body must be communicated to the appellant in writing within a specified timeframe.

### 12.1.14 Introduction of New Technology or Clinical Practices: Implication for Credentialling

The process for introduction of a new technology includes

- Request to introduce the new technology usually made by a medical practitioner or a group of practitioners
- Assessment of the technology for evidence of safety, effectiveness and cost effectiveness
- Assessment of the alignment of the change to the organisational strategy
- Assessment of the organisation capability to support the new technology
- Assessment of the operational and financial impact of introducing the new technology
- Consideration of the skills and training required by staff to use the new technology

Most large organisations have a New Technology Committee that usually performs these tasks. Smaller organisations may use the expertise of larger organisations or the Department of Health. Based on these assessments the New Technology Committee would advise the organisation whether the new technology should be introduced in the organisation.

In the assessment of the technology consideration would be given to the skills and training required by health professional to use the new technology and the New Technology Committee would advise the organisation of the necessary credentials required by medical staff if the new technology was introduced.

Based on this advice the Credentialling and Scope of Clinical Practice Committee would perform its task of verifying the credentials and make the decision about whether the use of the new technology should be added to the scope of practice of the medical practitioner.

### 12.1.15 Review of Scope of Clinical Practice

Due to changes in community needs for services, changes in technology and models of care the skills and training required by clinicians may change driving the need for review of their scope of clinical practice. Ideally scope of clinical practice should be reviewed between the medical practitioner and their medical lead during the process of annual performance review. This is an ideal platform for a discussion about new skills and training that has been acquired, changes to service delivery including any disinvestment of services that may have occurred and the plans for the clinical area going forward. Based on this discussion there may be an agreement to review and change the scope of practice. The Recredentialling cycle provides another opportunity for electively reviewing scope of clinical practice.

In addition, the organisation should have internal monitoring systems that medical practitioners are working competently as well as within their scope of clinical practice. These monitoring systems include clinical audit, peer review, mortality and morbidity reviews and benchmarking of clinical outcomes.

#### 12.1.15.1 Unplanned Review of Scope of Clinical Practice

An unplanned review of scope of clinical practice will usually occur following a complaint or concern about a medical practitioner's competence. Complaints may arise internally from staff or patients or externally from regulatory bodies, complaints bodies or patient advocacy groups. Similarly, colleagues, team members, or even the practitioner's family members may raise concerns about competence. In addition, concerns may also be raised in the context of organisational quality management systems like peer review or clinical audit. Organisational incident investigation management processes may reveal that individual clinical performance rather than systems failure led to the incident.

The organisation must be responsive to complaints and concerns about a clinician's competence and have a structured process to manage them ensuring that risks to safety are minimised and the principles of natural justices and procedural fairness are upheld.

Management of such complaints or concerns is covered in detail in the section on Performance Management. For this section, it is sufficient to say the outcome of the investigation of the complaint or concern about the performance may be to review the scope of practice with a view to modify, restrict or suspend it temporarily or permanently. If that decision is made it should be communicated to the Credentialling and Scope of Practice Committee that will formally endorse the change to the scope of practice.

### 12.1.16 Credentialling of Junior Medical Staff

It is expected that Junior Medical Staff will always practice under supervision. The level of supervision will depend on their level of competence based on their length of training and experience and demonstrated performance. As they do not practice independently the process for credentialling and defining their scope of practice is not mandated by government policy. However, interest in this area is growing and health services are expected to have processes to ensure that they can demonstrate that Junior Medical Staff hold current registration and necessary police and working with children's check and are supervised at the level of competence.

## 12.2 Performance Enhancement or Performance Development

Supporting doctors to continuously enhance their performance and managing underperformance is an important medical workforce management task. Doctors are the key decision makers about patient care and performance of doctors is critical to the delivery of high-quality care. In the complex heath environment, a doctor's performance is not just dependent on their own level of competence but may be affected by other influences including their personal and family circumstances, their

physical, mental and psychological health and their work conditions, environment and culture.

The Department of Health, Victoria uses the term Performance Enhancement for the ongoing process between a doctor and the organisation, to support continuous professional development, promote engagement and ensure a standard of performance that meets and exceeds the expectations of the community [5]. Performance Enhancement is a positive process in which the shared goals are developed between the organisation and the doctor, who then support each other in the achievement of those goals. Putting the delivery of high-quality patient care at the centre of the process allows for mutual interest and benefit from the process. Management of underperformance generally known as Performance Management is an important but small component of the broader process of Performance Enhancement.

Performance Enhancement commences at the time of appointment and is intricately linked to the credentialling cycle. The medical leader be it clinical director, unit head or equivalent, to whom the doctor reports is critical to driving the process. Table 12.2 outlines key steps in the process of Performance Enhancement.

It is clear that Performance Enhancement is not a one-off process of an annual meeting between the doctor and their medical leader but an ongoing supportive process of building a mutually beneficial relationship with the organisation that leads to achievement of personal and professional goals for the medical practitioner and ensures the organisation meets its obligation to provide safe

**Table 12.2** Performance Enhancement

| Time | Process | Outcome |
|---|---|---|
| Appointment | Credentialling and defining the scope of clinical practice | Assurance that the doctor is competent to provide the clinical care that they have been appointed to deliver and the organisation is able to support their agreed scope of practice. |
| Within a month of appointment | Formal meeting of the doctor with their medical leader | Clarify role and mutual expectations.<br>Set performance goals aligned with organisational objectives.<br>Commence the building of a good professional relationship for ongoing mutual benefit. |
| Ongoing | Access to performance development, clinical improvement and leadership development activities. | Continuous improvement of skills and performance.<br>Meeting of medical board and college CPD requirements. |
| Ongoing | Quality assurance activities like clinical audit, peer review, mortality and morbidity meetings. | Monitoring of performance.<br>Ongoing communication about clinical care ensures that organisations and doctors are collaborating around a shared commitment to enhancing patient care. |
| Ongoing | Informal conversations about clinical practice. | Real time feedback about performance and opportunity to refine and adjust goals and progress towards those goals. |
| Ongoing | Recognising outstanding performance. | Increased engagement of medical staff. |
| Ongoing | Identifying underperformance | Early management of underperformance allowing successful outcome. |
| One year after appointment and then yearly | Formal performance appraisal | Review past performance to inform goals and plans for the coming year.<br>Review and update scope of practice if required.<br>Review career progression and future opportunities. |
| Every year | Repeat tasks of the annual cycles | Continuous engagement, performance improvement and achievement of shared goals. |
| 3–5 years | Recredentialling | Informed decision made about continuation of practice. |

and high-quality care. It lends itself to improve attraction and retention, increase discretionary effort and productivity through a process of clinical engagement.

### 12.2.1 Multisource (360°) Feedback

This is another tool that can be utilised to inform the Performance Enhancement process. It enables a senior doctor to receive structured feedback from their medical leader and a small number of peers, subordinates and colleagues. Implemented effectively, with appropriate resourcing, support and training, it can assist senior doctors and organisations to gain valuable insights into performance across a range of roles and competencies. However this must be used with caution as implementation without adequate resourcing, training and in an environment lacking in trust it may result in significant harm and disruption of relationships with medical staff.

It is a valuable formative tool that provides meaningful information about the doctor's performance to themselves and to the organisation. The doctor can use this information to further refine their professional development plan. It works well with those who have the insight and willingness to reflect on and improve their performance. The role of the medical leader is critical to guide the doctor in the use of the information. This method should not be used as an evaluative tool or as a tool for performance management.

### 12.2.2 The Performance Development Meeting

The annual performance development meeting is the formal process in the Performance Enhancement cycle as described above. Organisations should ensure this expectation is clearly communicated to all medical staff and the medical leaders of the organisation. It is also the responsibility of the organisation to provide the necessary time, resources and training to medical leaders to drive this process.

Performance Enhancement meetings should be formally scheduled between the medical leader and the doctor and both parties should have adequate preparation time. Organisations should have approved proformas to ensure consistency of the process and assist in documentation. During the preparation phase both parties should independently reflect on and evaluate past performance and consider goals for the upcoming year. Previous year's documentation of the performance meeting should be reviewed with a view to evaluate achievement of agreed goals.

At the meeting the achievements and challenges of the past year should be discussed and an ideally a mutually consistent evaluation of performance is arrived at and documented. If the performance enhancement cycle has been carried out as described above this meeting should have no surprises and both parties are likely to be on the same page about the doctor's performance.

Following evaluation of past performance, goals for the coming year should be discussed and a plan to achieve those goals agreed to and documented.

### 12.2.3 Setting Goals

Setting of specific, measurable, achievable, relevant and time bound (SMART) goals increases the possibility of success in achieving the goals. Various frameworks can be used to define areas in which goals can be set. The Department of Health, Victoria suggests using Work Achievement, Professional Behaviours, Learning and Development and Career Progression as domains to set goals.

Goals discussion should include an agreement on how the organisation will support the achievement of the goals and monitor progress. The process should be documented and the organisation must have a system for monitoring completion of the process as well as ideally have an evaluation process for its effectiveness. Feedback on the experience of conducting and going through the process should be collected from medical leaders as well as doctors in order to continuously improve it.

### 12.2.4 Pitfalls in the Performance Enhancement Process

If undertaken well Performance Enhancement will lead to better clinical engagement, co-ownership of organisational objectives and job satisfaction for doctors. However poor execution may result in dissatisfaction and possibly cause significant harm to the relationship between the organisation and doctors.

Some suggested cautions include

- Clear messaging about the purpose of Performance Enhancement as a supportive and developmental process for doctors.
- Ensuring frequent, ongoing, real time feedback on performance with no surprises at the formal annual appraisal meeting.
- Use as a formative tool and not as an evaluative tool.
- Ensuring clear distinction from performance management.
- Adequate resource allocation in terms of non-clinical time and administrative support.
- Training of medical leaders in giving feedback and goal setting.

## 12.3 Performance Management

Performance is not just about good technical knowledge and skills, but also considers other important non-clinical attributes such as professionalism, teamwork, leadership and communication. The performance of individual medical practitioners may be influenced by many factors including their health status, personality, and the broader personal and professional environment within which they work.

Underperformance is performance that does not meet expected standards and can be broadly categorised as:

- Clinical performance of a standard that is below what is expected from a practitioner of similar training or experience. These standards are usually set by the profession through professional colleges and prevocational training bodies and reflect the clinical competence that is expected to be demonstrated by a practitioner who has successfully completed the training requirements.
  - Examples
    Individual training standards of professional colleges and societies
    The Australian curriculum framework for Junior Doctors
- Behaviour or conduct that is below the standard required by the profession, regulators, employers or the community. These standards are usually outlined in organisational codes of conduct and policy documents or professional practice guides of regulators or professional bodies.
  - Examples
    Good Medical Practice from the General Medical Council (GMC), UK
    Good medical practice: a code of conduct for doctors in Australia
    The Australian Medical Association Code of Ethics

These standards provide a benchmark against which the performance of a doctor is assessed.

Failure to meet clinical standards leads to a breach of professional duty, causes a risk to patient safety and undermines public confidence in the practitioner and the profession. Failure to meet behavioural standards may affect the morale of the team, disrupt functioning, decrease productivity and put the health and safety of patients as well as co-workers at risk. Doctors enjoy a position of privilege and trust in society. In return the society expects that doctors will provide safe and high-quality medical care that meets the professional standards. Health care organisations that employ or contract doctors are also accountable to its patients and funders to ensure that its employees including doctors are fit to provide the standard of care expected of them.

Hence doctors have the professional responsibility to maintain competence in their field and demonstrate a high standard of professional conduct. Organisations that employ doctors are obligated to ensure that they have processes to monitor their doctors' performance and identify

and manage underperformance early to minimise risk to patient safety.

In addition to the risk to patient safety, underperformance if not identified and managed both appropriately and sensitively, can lead to unhealthy and unproductive outcomes for the individual practitioner as well as the organisation and teams that they work in. Early identification and management of underperformance increases the chances of successful remediation.

### 12.3.1 Factors Contributing to Underperformance

Factors other than deficient clinical knowledge, skills, training or experience may contribute to underperformance. These may include:

- **Individual factors**
  - Health-physical, mental and emotional
  - Personality
- **Organisational factors**
  - Workload
  - Job design: skill-challenge match
  - Organisational culture-safety, fairness, equity, leadership, teamwork
  - Organisational processes—supervision, rostering, training
  - Organisational support
- **Life factors**
  - Family and personal circumstances including relationships
  - Financial circumstances
  - Career progression

### 12.3.2 Health as a Contributory Factor of Underperformance

Evidence suggests that doctors enjoy better physical health as compared to the rest of the population [6]. However recent data on mental health of doctors shows that there is a high prevalence of mental illness in the profession. The National Mental Health Survey of Australian Doctors and Medical Students found that doctors and medical students reported substantially higher rates of psychological distress and attempted suicide compared to both the Australian population and other Australian professionals [7]. Similar findings have been demonstrated in the United Kingdom where 10–20% of doctors have reported being depressed at some time during their career and the risk of suicide is raised compared to the general population [8]. Alcoholism and drug dependency also affects a high proportion of doctors compared to other professional groups [9]. The lifetime prevalence of substance abuse disorders amongst doctors in Australia has been estimated to be approximately 8% [10].

A doctor's ability to practice safely may be affected by the presence of illness. In the United States of America, the term Impaired Physician has been used to describe a doctor whose ill health affects their fitness to practice. The American Medical Association has defined Impairment as any physical, mental or behavioural disorder that interferes with the ability to engage safely in professional activities [11]. This definition reflects the fact that a wide range of health conditions may impact on a doctor's ability to practice safely.

While physical illness may affect a doctor's performance, it appears that this is not very common. Amongst the cohort of doctors in the UK who were referred to the GMC Health Committee following performance-related concerns, only 1% had a physical illness while 99% had problems with alcohol, drugs or mental health [12]. Age-related cognitive decline and dementia was the most common physical conditions associated with underperformance.

### 12.3.3 Health-Related Behaviours and Attitudes in the Medical Profession

Doctors, in general, do not look after their own health, deny ill health and delay seeking medical attention [13]. A survey of junior doctors in the UK showed that they rarely took time off work and commonly self-prescribed [14]. Responses to postal surveys conducted in Australia, the UK and Spain show that most doctors do not have a GP, and those that do, do not use their services often. Many doctors self-prescribe and admit to

stress. Alcohol and drug use is not uncommon. Perceived barriers to accessing health care are confidentiality, inability to take time off, reluctance to relinquish control of their own health to a colleague, fear of the impact of the illness on their career, role conflict in being a doctor and a patient and a perception that ill health may demean them in the eyes of their patients, colleagues, employers and regulators [15–17].

Therefore, when true impairment in clinical skills becomes apparent, the illness is usually severe and long-standing [18]. Unfortunately, many times impairment is identified after concerns about performance are raised or clinical errors have occurred setting off a reactive response to the underperformance.

It is also apparent that the medical profession does not deal well with disability amongst its own members. A recent working party convened by the Royal College of Physicians of London found that there was a stigma attached to having a disability and that doctors were reluctant to declare non-obvious impairments, particularly mental illness [19].

Early identification and management of illness before it starts impacting on clinical performance would prevent the development of impairment, ensure patient safety and increase the probability of a successful outcome for the doctor.

### 12.3.4 Personality as a Contributory Factor to Underperformance

The relationship between personality and academic performance in medical students has been a subject of several studies and the personality trait of conscientiousness has been found to be associated with long-term success in medical training [20]. There is less understanding about the association of personality traits and job performance. However, some studies have shown that personality traits of neuroticism and low conscientiousness may be associated underperformance [21]. Paice found behaviour patterns amongst poorly performing undergraduates or the so-called trainee in difficulty that could be consistent with low conscientiousness and high neuroticism including doing the disappearing act, low work rate, ward rage, rigidity, unreliability, turning up late and insight failure' [22].

Personality disorders like borderline, antisocial, narcissistic, and obsessional personalities present with underperformance related to behaviour or conduct below the expected standard [23]. These doctors may demonstrate problems with interpersonal relationships and teamwork, difficulty in adapting to change, anger management problems and are usually identified by patient or staff complaints. The behaviours of concern are usually long-standing but more pronounced during periods of stress. Personality disorders are difficult to manage particularly when associated with a lack of insight. This form of underperformance is dealt with in further detail in the section on management of inappropriate behaviour.

### 12.3.5 Work-Related Factors Contributing to Underperformance

Organisational factors such as high workload, shift systems, work patterns, poor leadership and team work, all have the potential to impact negatively on an individual's wellbeing and to distort patterns of behaviour and ability to perform. These systems-related factors must also be considered as possible contributory factors for underperformance.

### 12.3.6 Burnout as a Contributory Factor to Underperformance

Burnout is a well-defined syndrome that is commonly seen in the medical profession [24–26]. It is defined as a psychological syndrome that occurs in relation to chronic work-related strain and is characterised by:

1. Emotional exhaustion—decreased emotional energy to meet work-related demands and feelings of being over-extended at work.
2. Depersonalisation—increased emotional distance from one's job role and the feeling of negativity, cynicism and a detached response

to other people including patients, colleagues and family.
3. Reduced personal accomplishment—decreased self-worth and feeling of competence related to work [27].

Burnout may be a contributory factor in underperformance. Prinz et al. [28] and Amoafo et al. [29] have authored good reviews of burnout in the medical profession. These reviews have found that factors contributing to burnout are specifically work related. Work overload, work-home conflict and perception of work as stressful have been found to be the factors most strongly related to burnout. Other contributing factors include emotionally demanding situations in the workplace like interactions with difficult patients, managing unrealistic community expectations and dealing with life and death situations. Younger doctors in early career stages and female doctors have a higher incidence of job burnout. Burnout has significant effects on the health of the individual and their job performance. It has been associated with withdrawal, intention to leave the job, job turnover, loss of productivity and a reduction in the quality of patient care.

All the above mentioned factors imply that underperformance is a complex issue and management of underperformance should take into account factors contributing to it and an attempt made to address these. Strategies to reduce or address these contributory factors are discussed in the section on Managing Mental Health and Wellbeing.

### 12.3.7 Principles of Managing Underperformance

- Clear and agreed procedures should exist for managing concerns about performance.
- Concerns should be managed promptly and as per existing procedures.
- Principles of natural justice and procedural fairness should be upheld. This implies that the person about whom a concern is raised must be given the opportunity to be heard by an impartial decision maker.
- Need for patient safety should be balanced with the need to protect the reputation of the practitioner. In case of immediate risk to patient safety from continued practice, suspension from clinical practice may be required till the matter is investigated. The decision to suspend must made with due consideration and be taken at only at senior management level.
- Confidentiality of proceedings should be ensured.
- Level and depth of investigation should match the seriousness of the concern with more serious matters requiring involvement of senior management or executive.
- Clear documentation should ensure that records are maintained and the rationale for decision-making is clear in case the decision in challenged in the future.
- Support should be offered to the person being investigated and their support person should be allowed at all formal meetings.

### 12.3.8 Process of Performance Management

Concerns about performance may be raised from several sources including colleagues, co-workers, supervisors, patients or external sources. The manager of the underperforming doctor should be responsible for managing the concern. In a hospital setting this responsibility may sit with the unit head, or the Director of Medical Services. The process may differ depending on whether the concern is predominantly about clinical competence or about professional behaviour and conduct but the basic steps are common. The responsible manager must:

- Assess and manage any immediate risk to patient or staff safety. If a significant risk is identified temporary measures to manage the risk may include
  - Removal from clinical duties till the matter is investigated
  - Restriction of scope of practice
  - Increased level of supervision
  - Allocation to other duties or leave
- Determine the seriousness of the concern and based on that decide the level of review

required. Key considerations in determining seriousness may include whether the concern is an isolated occurrence or part of a trend and to what extent the clinical performance, behaviour, practice or variation in outcome depart from the expected standard. The seniority and experience of the person conducting the review must reflect the seriousness of the complaint.

- Inform the person of the complaint or concern and the process of investigation that will follow. For serious concerns this should be done in writing and the letter should outline the concerns, the process of the investigation, the avenues for further communication and an invitation to a meeting once the investigation is completed where they can respond to the concerns.
- Conduct the investigation. The process of investigation will depend on the nature of the concern. Concerns about clinical competence may require review of the doctor's clinical practice by a member/s of the profession who practice in the same discipline. These reviewers must be independent and have no conflict of interest in the proceedings. In small organisations or where internal expertise does not exist, external experts may need to be invited. The process of review and the reviewers should be agreed on with the doctor whose performance is under review Investigation about conduct and behaviour may be reviewed in conjunction with the organisations Human Resources department. This would include gathering evidence from witnesses about the actual occurrence of the behaviour.
- Invite the person to a meeting with a support person to inform them of the findings of the investigation and provide them with the opportunity to respond. It is advisable to have a member of the Human Resources team at the meeting to support and witness the process. At the meeting the details of the concern should be explained to the doctor. The expected standard of performance should be outlined and how the behaviour/clinical performance failed to meet the standard should be clarified. The doctor should be invited to respond. The outcome may be determined in one meeting if all the information is available or further meetings may be required.
- Based on the response the outcome should be determined and conveyed to the doctor verbally followed by a formal letter. Avenues for appeal and support must be communicated.
- All decisions must be well documented.
- A process to follow up the outcomes of the review must be determined.

### 12.3.9 Possible Outcomes of the Performance Management Process May Include

- No action required.
- Informal counselling.
- Formal verbal or written warnings.
- Development of a performance improvement plan with clearly defined targets, deadlines and a review date.
- Restriction of the doctor's scope of clinical practice or increase in supervision. This must be appropriately documented and followed up as required by the organisations Credentialling and Defining Scope of Practice policy.
- Suspension from employment till remediation, reskilling or further review is completed. Suspension usually requires approval from senior managers or executive.
- Summary dismissal or termination for gross or serious misconduct may be appropriate but requires approval of senior managers or executive.
- Mandatory notification to the Medical Board of Australia is required if it is determined that the doctor.
  - has practised while intoxicated by alcohol or drugs
  - has engaged in sexual misconduct in connection with the practice of the profession
  - has placed the public at risk of substantial harm in the practice of their profession because the doctor has an impairment
  - has placed the public at risk of harm because the practitioner has practised the profession in a way that constitutes a significant departure from accepted professional standards

### 12.3.10 Conclusion

Management of underperformance requires a holistic approach that takes into account possible underlying causes of underperformance including health status, personality, wellbeing as well as work-related factors. Critical success factors include good clinical governance, occupational health and safety systems to monitor and identify performance issues early, a just and supportive culture that encourages doctors to seek help early without fear of being stigmatised, building capability of senior leaders to manage underperformance and resources to remediate, reskill or rehabilitate the doctor and facilitate return to work as soon as possible. Understanding an individual's motivation to change and engaging them in the process of change should be part of the performance management process.

## 12.4 Appropriate Workplace Behaviour

All organisations must aim to promote an environment where employees enjoy good working relationships. This means that all staff including medical staff should be able to work in an environment that is free from inappropriate workplace behaviour. The expected behaviour must be outlined in documents like the employee code of conduct, policies and procedures and contracts. All employees must be expected to conduct themselves in a manner that is in accordance with organisational values and respect for the rights and welfare of patients and other employees. In addition, organisational values and culture of respect, teamwork and compassion must be frequently communicated to all employees and performance should be assessed against demonstration of those values. Good behaviour driven by values must be recognised and rewarded. All this creates a platform for promoting good behaviour and successfully managing inappropriate behaviour.

### 12.4.1 What Is Inappropriate Behaviour?

Inappropriate workplace behaviour is a broad term that includes any behaviour that breaches the organisation's values, professional codes of conduct or legislative requirements.

### 12.4.2 Disruptive Behaviour

Disruptive behaviour is a well-known term for a particular type of inappropriate behaviour and has been extensively described in the context of the medical profession. The American Medical Association has described disruptive behaviour as "*Chronic and repetitive inappropriate behaviour that adversely affects the effective functioning of other staff and teams and interferes with patient care*" [30]. The College of Physicians and Surgeons of Ontario define disruptive behaviour in more detail as: *When the use of inappropriate words, actions or inactions by a physician interferes with his or her ability to function well with others to the extent that the behaviour interferes with, or is likely to interfere with, quality health care delivery. Disruptive behaviour may, in rare circumstances, be demonstrated in a single egregious act, for example, a physical assault of a co-worker, but is more often composed of a pattern of behaviour. The gravity of disruptive behaviour depends on the nature of the behaviour, the context in which it arises, and the consequences flowing from it* [31].

Stewart et al. have published a good review of Disruptive Physician Behaviour which readers are encouraged to read [32]. Some of the key learnings from the review are described in this section.

- **Impact of disruptive behaviours**
  - Patient harm
  - Poor team performance
  - Difficult work environments
  - Poor patient satisfaction
  - Nurse recruitment problems
  - Litigation risk

- **What does disruptive behaviour look like?**
  - Inappropriate words
    Profane, disrespectful, insulting, demeaning or abusive language
    Demeaning comments or intimidation
    Inappropriate arguments with patients, family members, staff
    Rudeness
    Boundary violations with patients, family members or staff
    Gratuitous negative comments about a colleague's care (orally or in notes)
    Censuring colleagues or staff in front of patients, visitors or other staff
    Outbursts of anger
    Behaviour that others would describe as bullying
    Jokes or comments about race or ethnicity
  - **Inappropriate actions/inactions**
    Throwing or breaking things
    Refusal to comply with known and generally accepted practice standards
    Use or threat of unwarranted physical force with others
    Repeated failure to respond to calls or requests for information
    Repeated and unjustified complaints about a colleague
    Not working collaboratively or co-operatively with others
    Creating rigid or inflexible barriers to requests for assistance or co-operation

Another framework for categorising disruptive behaviour has been described by Swiggart et al. as spectrum of behaviours from aggressive through passive-aggressive to passive [33]. Some example of passive behaviours which can be equally disruptive to patient safety include not answering calls, avoiding meetings, non-participation in unit activities or persistent lateness. Passive aggressive behaviours have been described as hostile notes/messages, constant complaining or derogatory comments about the institution.

### 12.4.3 Factors Contributing to Disruptive Behaviour

These may be categorised as individual factors and environmental factors. Individual factors may be further classified into skills, health status and personality-related factors.

#### 12.4.3.1 Individual Factors

- Skills
  - Poor communication and influencing skills
  - Poor conflict resolution skills
  - Poor leadership skills
  - Low empathy
  - Low insight
- Health
  - Dependency on drugs or alcohol
  - Mental illness
  - Stress
  - Cognitive impairment, or
  - Physical illness
- Traits/Personality
  - Driven
  - Compulsive
  - Perfectionist

#### 12.4.3.2 Environmental Factors

- Family problems
- Financial problems
- Work Environment
- High work demands with low support
- System which rewards disruptive behaviour
- Poor systems for responding to genuine concerns
- Tolerance of low level aberrant behaviour
- Failure to clearly communicate behavioural expectations

### 12.4.4 Other Types of Inappropriate Workplace Behaviour

Specific examples of behaviour or conduct that is below the standard include

- ***Workplace Bullying*** is repeated and unreasonable behaviour directed towards an employee or group of employees that creates a risk to health and safety (WorkSafe). Unreasonable behaviour involves behaviour that a reasonable person, having regard for the circumstances, would see as unreasonable.
- ***Discrimination*** occurs when someone, or a group of people, is treated less favourably than another person or group because of a protected attribute, that is, race, colour, nationality, sex pregnancy, marital status, age, disability, religion and sexual preference (HREOC). Discrimination can be direct or indirect.
- ***Harassment*** occurs when someone is made to feel intimidated, insulted or humiliated because of a protected attribute, i.e. race, colour, nationality, sex, disability or sexual preference (HREOC).
- ***Sexual Harassment*** is unwelcome or unwanted sexual behaviour which makes a person feel offended, humiliated and/or intimidated where that reaction is reasonable in the circumstances (Sex Discrimination Act 1984).

### 12.4.5 Managing Inappropriate Behaviour

Inappropriate workplace behaviour needs to be managed quickly and carefully because in addition to breaching organisational policies, it can also breach state and federal legislation and could result in penalties for both individuals and the organisation. Bullying behaviour may compromise safety of staff either physically or mentally which can breach Occupational Health & Safety legislation. The formal process for management has been outlined in the section on Performance Management. It is advisable to involve the Human Resources department in serious issues.

Critical success factors in effective management include

- Clear expectations about expected behavioural standards through code of conduct and policy documents.
- Executive support for zero tolerance of inappropriate behaviour.
- Education and empowerment of staff to identify, deal with or report inappropriate behaviour.
- Empowering frontline staff to deal with lower level aberrant behaviour early.
- Training and support for managers in managing inappropriate behaviour.
- Dealing consistently and transparently with complaints about inappropriate behaviour.
- Having a graduated set of outcomes (informal, formal, disciplinary, regulatory) depending on the severity of the incident.
- Making supports available to victims as well as perpetrators of inappropriate behaviour.

### 12.4.6 Conclusion

Inappropriate workplace behaviour is a risk to patient and staff safety, undermines morale of the workforce, increases turnover and decreases productivity. Bullying comprises an occupational health and safety issue. Employers have a positive statutory obligation to provide a healthy and safe workplace free from bullying. Employers who breach work health and safety laws are subject to penalties under the relevant work health and safety legislation. Discrimination and harassment fall under the legal framework of Anti-Discrimination laws and when this occurs employees can pursue legal action against an employer in a court/anti-discrimination tribunal or Fair-work Australia.

Hence it is critical for organisations to have the capability to identify and manage inappropriate behaviour promptly, consistently and transparently ensuring support for all involved.

## 12.5 Managing Mental Health and Wellbeing of Doctors

### 12.5.1 Complete Mental Health: It Is More Than the Absence of Mental Illness

As per Corey Keyes, Complete Mental Health is a state of absence of mental illness and presence of mental health [34]. Mental Health and Mental

Illness fall on two separate continua. Mental Health is described as a state of positive emotions such as feeling good, and positive functioning or functioning well. Absence of mental health may result in a state of being that is empty and hollow even though the individual may not be mentally ill. This state has been described as Languishing by Keyes. Keyes suggests that the state of Languishing is as bad as a major depressive episode. On the other hand, people who have high mental health and no mental illness are described as Flourishing. For complete mental health in the workplace, we need separate strategies to prevent and manage mental illness and increase mental health.

Therefore, any health and wellbeing initiative in the workplace needs to address both prevention and management of ill health and promotion of wellbeing by creating conditions where employees can pursue a fulfilling career, accomplish their personal and professional goals and achieve their full potential.

### 12.5.2 Understanding Workplace Health and Wellbeing

The wellbeing of individuals in a workplace is a product of complex interactions between factors within and outside the workplace. Each individual worker brings with them their own strengths or protective factors and vulnerabilities or risk factors to work, which are usually outside the control of workplace interventions. These factors include:

- Individual bio-psychosocial factors—genetics, personality, early life events, cognitive and behavioural patterns, mental health history, lifestyle factors and coping style.
- Personal life factors—family, social and cultural matters, financial health and significant life events.

In addition, the workplace has its own risk and protective factors for mental health. These factors include:

- The design of the job—demands of the job, control in the work environment, resources provided, the level of work engagement, characteristics of the job and potential exposure to trauma.
- Team/group factors—support from colleagues and managers, the quality of interpersonal relationships, effective leadership and availability of manager training.
- Organisational factors—organisational change, perceived organisational support, recognising and rewarding work, perception of organisational justice, psychological safety climate, organisational culture, safety of physical environment.
- Home or work conflict—the degree to which conflicting demands from home, including significant life events, interfere with work and vice versa.

The workplace and individual factors can have an amplifying or buffering effect on the wellbeing of individuals. The Four Zone workplace mental health model, developed by the author, conceptualises the amplifying or buffering interaction between individual and workplace factors which can place an individual in one of the four zones described below (Fig. 12.1).

- Danger zone: workplace risk factors add to individual risk factors and amplify the risk to health and wellbeing.
- Resilience zone: workplace risk factors are buffered by individual protective factors.
- Support zone: workplace protective factors buffer against individual risk factors.
- Flourishing zone: workplace protective factors add to individual protective factors to amplify mental wellbeing.

Worker wellbeing remains a shared responsibility of the individual worker and the organisation they work in. Individuals must take responsibility and accountability for recognising and addressing their personal risk factors and strengthening their protective factors. Some of these may be outside their control but addressing life style factors, health concerns, unproductive behavioural patterns, personal relationships, and financial health may be some areas that could be modifiable.

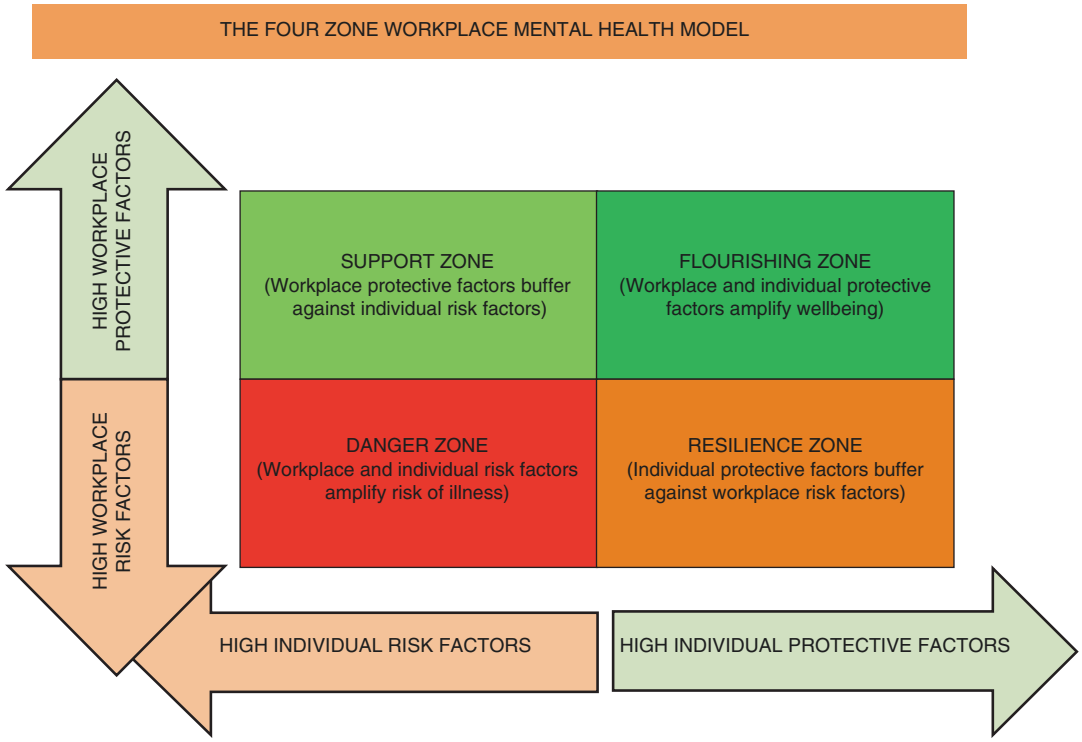


**Fig. 12.1** Four zone workplace mental health model

Workplaces in turn should strive to keep workers in the Flourishing or Support zone and avoid the Danger zone. It should also strive to ensure that individual protective factors in the Resilience zone are not overwhelmed by workplace risk factors tipping workers into the Danger zone.

### 12.5.3 Mental Health and Wellbeing of Doctors

Despite being a highly paid and highly respected profession the mental health and wellbeing of doctors has been of concern for some time now. The National Mental Health Survey of Australian Doctors and Medical Students found that doctors and medical students reported substantially higher rates of psychological distress and attempted suicide compared to both the Australian population and other Australian professionals [3]. Similar findings have been demonstrated around the world. In a large survey of American surgeons, Shanafelt et al. (2009) found that 40% reported symptoms of burnout and 30% screened positive for symptoms of depression [25]. Goldberg et al. (1995) found 60% Emergency Physicians reported moderate to high burnout [24]. In a systematic review of 15 studies, Thomas has found a high level of burnout in medical residents [26].

As described earlier in the chapter like any employee a doctor's performance is closely linked to their health and wellbeing. Poor mental health can impact on the doctor's ability to safely provide clinical care as well as contribute to inappropriate conduct and behaviour. In addition, stress related to poor working conditions, high workload and work life conflict could cause job burnout that in turn can impact on performance. Therefore, providing an environment that promotes and protects health and wellbeing and prevents ill health is essential for ensuring a high-performing workforce that will then achieve the overall aim of providing safe and high-quality patient care.

Similar sentiments are also evident from other sources. In 2008, Donald Berwick and colleagues

provided a framework for the delivery of high value care in the USA, the Triple Aim, that is centred around three overarching goals: improving the individual experience of care; improving the health of populations; and reducing the per capita cost of health care [35]. Recently it has been suggested that the Triple Aim be broadened to a Quadruple Aim to include "improving the provider experience" as this is a key enabler of the first three goals. It is suggested that improving the provider experience so that they can find joy and meaning at work will lead to an engaged and productive workforce that is essential to realise the first three goals [36].

### 12.5.4 Creating a Mental Health and Wellbeing Strategy

All organisations should invest in creating a Mental Health and Wellbeing Strategy for their staff including doctors. Organisations like the World Health Organisation, European Network for Workplace Health Promotion (ENWHP) and beyondblue have developed useful guidelines for this and readers are encouraged to explore these [37, 38].

Some key learnings from these guides are that workplace mental health strategies should aim to:

#### 12.5.4.1 Support Employees with Mental Illness

- Identify and support people with a mental illness including their return to work process.

#### 12.5.4.2 Prevent Mental Illness in At-Risk Employees

- Make it easy to seek help
  - Creating a network of support people and programmes like the Employee Assistance, Peer Support
  - Increase capability of all staff including supervisors and peers to recognise and assist individual in need of help
- Raise awareness about mental illness
- Reduce stigma about mental illness
  - Talking openly about mental illness
  - Sharing of stories by seniors about their success in managing mental illness
  - Supporting employees with mental illness to remain in the workplace or successfully return to work following an absence due to mental illness

#### 12.5.4.3 Protect Mental Health of Healthy Employees

- Recognise and identify stressors in the content and context of work that play a part in decreasing wellbeing. Risks for doctors include:
  - Overwork
  - Low recognition
  - Poor relationship with superiors
  - Sustained mental effort
  - Low participation in decision-making
  - Competitive climate
  - Information not clear
  - Insufficient information to do work
  - Role ambiguity or conflict
  - Inequity
  - Poor interpersonal relationships
  - Poor working conditions
  - Poor leadership and communication
  - Conflicting home and work demands
- Reduce the impact of these stressors by:
  - Reorganising poor work processes
  - Increase control that doctors have over their work
  - Include them in decision-making and problem solving processes
  - Balance effort and rewards
  - Improve communication and feedback
  - Clarify roles and expectations
  - Ensure adequate training to perform the role

### 12.5.5 Promote Mental Health and Wellbeing

- Create a positive workplace culture that helps doctors accomplish their professional and personal goals
- Enable nurturing and high-quality relationships
- Improve engagement in organisational decisions
- Help them find meaning and purpose in their organisational roles
- Make work environment pleasant

In addition, doctors should be encouraged to take responsibility for their own mental health. In a thoughtful article, Hatem suggests that physicians should continually renew themselves, and realise that they are not a limitless resource and to continually find the joy and satisfaction in work they need the time and effort to replenish what their profession takes out of them [39]. Shanafelt suggests personal wellness strategies like cultivating meaningful relationships, developing hobbies, participating in community, spiritual or religious activities and undertaking exercise and health promoting activities could help in renewal and replenishment [40]. He also emphasises aligning personal and professional values and managing any conflict between them. Figure 12.2 depicts a conceptual model developed by the author for a complete mental health strategy for a workplace.

## 12.6 Conclusion

As providers of health care and as healers of humankind, physicians are a very valuable resource for society. It is therefore not surprising that physician mental health and burnout and its personal and public health consequences is a major concern for the profession and the public they undertake to care for. Current discourse on mental health and burnout is limited to its identification and management and focuses on elimination the negative. While this is extremely important, institutions that employ physicians must also promote their wellbeing by creating a work environment that fosters positive experiences and actively cares for their wellbeing.

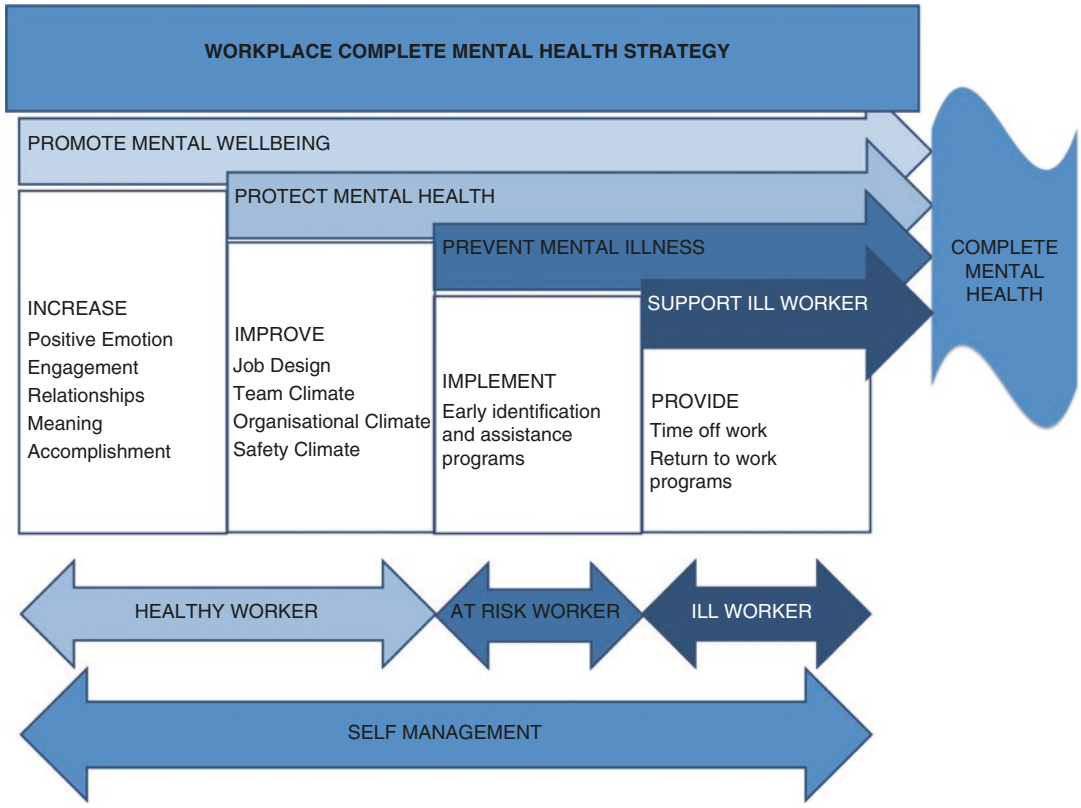


**Fig. 12.2** Workplace complete mental health strategy

## 12.7 Reflections

Medical workforce management is a core skill of a medical administrator. This chapter provided a basic outline of five key aspects of this important topic. It is acknowledged that most of the material is relevant to hospital-based practice only. It does not cover broader topics on medical workforce strategy and planning, medial education and training, industrial relations and regulation of the medical workforce.

Doctors are leaders of health care teams and their leadership impacts on the performance of the team and the outcomes the team achieves. They are highly trained and the most expensive labour category in health services. In addition, they also control a large part of the health expenditure with their decision-making including admitting and discharging patients, treatment decisions including procedures, medications and devices and decisions about the setting of care. Therefore, it is critical that health services employ or contract well trained doctors who are equipped to provide high-quality care and ensure that their work environment, education, training, continued professional development and wellbeing are supported throughout their employment.

This chapter has provided the reader with the basic information about the key aspects of medical workforce management compiled from the authors own training, practice and experience.

The section on Credentialling and Defining Scope of Clinical Practice took the reader through the policy framework, governance systems and operational processes required to ensure that an organisation fulfils its obligation to ensure that professionals employed to provide health care are competent and work within their approved scope of practice. It will assist medical administrators to set up governance systems for this in their organisations. It is important that adequate resources are allocated to ensure that the system and processes are sustainable. Medical Administrators must scrutinise the integrity of the processes personally and ensure that scrupulous documentation is maintained. Ensure that doctors are given adequate time to submit the extensive suite of documents but are clear that they will not be able to commence their employment until all documentation is complete.

The section on Performance Enhancement informed readers about the importance of continuously supporting and developing the medical workforce to achieve their personal and professional goals and realise their full potential. In practice this area is still developing and there is variability in the uptake of this concept amongst doctors. Doctors see this as a management task to be done between a manager and an employee. Even where unit-based structures exist, the relationship between the medical head and other doctors may still be peer based, and having a peer review your performance may not sit comfortably with both the Head and the reviewer or reviewee. While most organisations require annual performance reviews of their medical staff these are done inconsistently and may be a tick box exercise rather than a meaningful developmental conversation that mutually benefits the medical staff member and the organisation. Readers are encouraged to give more thought and attention to this important aspect of medical workforce management to get the best out of the medical workforce.

The section on Performance Management stepped the reader through the complex process of managing performance that does not meet expected standard. This is made more difficult than it should be as expectations of required standards are not made clear from the start. Medical Administrators must spend time and thought in ensuring that standards of competence and behaviour are clearly understood by all and medical staff and medical leaders are held accountable for upholding those standards. It is critical that performance issues are identified early and managed expediently and consistently following the principles of procedural fairness and natural justice. Medical leaders must be trained in giving feedback and the art of having difficult conversations and supported by the organisation when required to manage performance of their medical staff.

For a long time the medical profession has normalised and tolerated disruptive workplace behaviour of their colleagues. However, this culture is changing fast and there is a growing understanding that inappropriate workplace behaviour is a risk to patient and staff safety, undermines morale of the workforce, increases turnover and decreases productivity. In addition, organisations are required by legislation to ensure a safe working environment which makes effective management of such behaviour essential. Medical administrators must ensure that standards of behaviour are crystal clear, are role modelled by medical leaders and any breach is managed effectively. Addressing underlying factors that trigger disruptive behaviour is also critical to ensure a lasting change.

Managing Health and Wellbeing of Doctors is an important area this section introduced some original concepts that the author has developed. Readers will be aware of the growing concern about the wellbeing of doctors and the high rates of anxiety, depression and suicide in the medical profession. A lot of factors that affect wellbeing are personal to an individual and outside the control of an organisation. However, in today's work culture where the boundaries between work and life are blurred it is imperative on the workplace to recognise personal factors that may affect wellbeing and put in place supports in the workplace to help individuals while they are dealing with these issues. The Four Zone Workplace Mental Health model helps conceptualise the buffering and amplifying effect of individual and workplace risk factors and protective factors. By minimising workplace risk factors Medical Administrators can help reduce the impact of risks that the individual brings with themselves. The Complete Mental Health Strategy framework provides a comprehensive overview of what is required to ensure that any such strategy meets the requirement of ill workers, at-risk workers and healthy workers. Currently most workplaces implement systems like the Employee Assistance Programs to support workers who are injured or ill. However, most workers are healthy and their mental health must be protected from the day-to-day risks and frustrations inherent in large and complex health systems. In addition, the workplace must provide conditions that promote mental health where workers can flourish and realise their full potential. The ideal workplace should be a place that gives workers joy and meaning, where they make long-lasting, nurturing and supportive relationships, feel engaged in their day-to-day work and go home with a feeling of accomplishment every day. Working towards such a workplace will not only improve the ensure that medical staff feel good and function well, it will also help Medical Administrators to improve their own sense of wellbeing.

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# 13 Health Economics and Financial Management: What a Medical Manager Needs to Know

John Ramsay Ferguson

**Learning Objectives**
The reader should gain the following:

- A broad understanding of the economic and political environment in which health care functions.
- The context of an activity-based funding system for health care, particularly a casemix funding system for acute inpatient care.
- How to successfully manage the costs and budget for a health care facility.
- An appreciation of the key drivers and influencers of cost, especially from a medical workforce perspective.
- The value of accurate and relevant data, especially in terms of coding patient diagnoses, care and outcomes.

## 13.1 Introduction

*Health economics* is that branch of economics concerned with the efficiency, effectiveness, value and behaviour in the production and consumption of health and health care [1]. Kenneth Arrow is acknowledged as the father of this discipline following the publication of a paper in 1963 which highlighted the uniqueness of health and health care as commodities. Over the last half century much attention has focussed on the costs of health care as these have increased dramatically and show concerning trends for the future whereby a number of nations would consume major proportions of the entire gross domestic product on health.

Table 13.1 highlights the most recent OECD data on 34 countries for expenditure per person in USD (2014 data), which shows enormous variability between what are regarded as developed health systems and with no clear link to health outcome measures, such as overall longevity and perinatal mortality as examples. Greater expenditure does not translate directly to better health outcomes [2].

More recent Australian specific data is available from the Australian Institute of Health and Welfare [3] with the following condensed Table 13.2 outlining the growth over the past three decades in both per capita costs and the increase in expenditure as a percentage of GDP (see also Fig. 13.1).

There is no doubt that there are many cost drivers including new and expensive technology, an ageing population, a predominance of chronic disease in the western world and a much greater level of expectation from the community in terms of access and outcome. There has also been a vast disconnect between what was being funded and how that translated to what was being achieved,

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E. Loh et al. (eds.), *Textbook of Medical Administration and Leadership*,
https://doi.org/10.1007/978-981-10-5454-9_13

**Table 13.1** Total expenditure on health per capita

| **At current prices and PPPs** | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| *US dollars* | | | | | | | | |
| | **2006** | **2007** | **2008** | **2009** | **2010** | **2011** | **2012** | **2013** |
| Australia | 3208 | 3383 | 3492 | 3735 | 3786 | 3996.9 | [a] | [a] |
| Austria | 3741 | 3902 | 4173 | 4386 | 4496 | 4663.1 | 4896 | [a] |
| Belgium | 3283 | 3427 | 3681 | 3932 | 4028 | 4227.2 | 4419 | [a] |
| Canada | 3679 | 3843 | 3998 | 4297 | 4426 | 4503.2 | 4602[b] | [a] |
| Chile | 959 | 1068 | 1136 | 1210 | 1307 | 1450.8 | 1577 | 1663 |
| Czech Republic | 1563 | 1662 | 1772 | 2039 | 1928 | 2028.8 | 2077 | [a] |
| Denmark | 3581 | 3761 | 4056 | 4431 | 4534 | 4545.2 | 4698 | [a] |
| Estonia | 960 | 1114 | 1340 | 1389 | 1302 | 1357.9 | 1447 | [a] |
| Finland | 2768 | 2905 | 3163 | 3290 | 3289[b] | 3454.7[b] | 3559[b] | 3686 |
| France | 3411 | 3564 | 3726 | 3954 | 4029 | 4192.3 | 4288 | [a] |
| Germany | 3572 | 3720 | 3973 | 4227 | 4427 | 4609.8 | 4811 | 4884 |
| Greece | 2617 | 2727 | 3011 | 3030 | 2692 | 2647.7 | 2409 | [a] |
| Hungary | 1513 | 1451 | 1525 | 1581 | 1703 | 1799.9 | 1803 | [a] |
| Iceland | 3280 | 3373 | 3628 | 3639 | 3404 | 3457.5 | 3536[b] | 3642[b] |
| Ireland | 3179 | 3535 | 3794 | 4006 | 3787 | 3742.1 | 3890 | [a] |
| Israel[c] | 1820 | 1958 | 1977 | 1986 | 2078 | 2200.8 | 2304 | [a] |
| Italy | 2727 | 2765 | 3018 | 3115 | 3157 | 3202.4 | 3209 | 3183 |
| Japan | 2608 | 2747 | 2891 | 3049 | 3237 | 3458.3 | 3649[b] | [a] |
| Korea | 1484 | 1671 | 1771 | 1893 | 2069 | 2155.3 | 2291 | 2411[b] |
| Luxembourg | 4610 | 4227 | 4542 | 4657 | 4652 | 4660.9 | 4578 | [a] |
| Mexico | 777 | 822 | 879 | 928 | 950 | 964.6 | 1048 | [a] |
| Netherlands | 4096 | 4378 | 4717 | 4916 | 5051 | 5219.0 | [a] | [a] |
| New Zealand | 2392[d] | 2439[d] | 2697 | 2973[d] | 3020[d] | 3172.3[d] | [a] | [a] |
| Norway | 4616 | 4877 | 5246 | 5350 | 5440 | 5746.1 | 6140 | 6758[b] |
| Poland | 935 | 1060 | 1241 | 1368 | 1432 | 1494.3 | 1540 | [a] |
| Portugal | 2320 | 2430 | 2564 | 2733 | 2793 | 2642.4 | [a] | [a] |
| Slovak Republic | 1356 | 1623 | 1871 | 2095 | 2039 | 1999.5[e] | 2105 | [a] |
| Slovenia | 2145 | 2173 | 2459 | 2537 | 2449 | 2555.8 | 2667[b] | [a] |
| Spain | 2534 | 2712 | 2939 | 3078 | 3016 | 2998.1 | [a] | [a] |
| Sweden | 3198 | 3427 | 3656 | 3738 | 3747 | 3963.7 | 4106 | [a] |
| Switzerland | 4256 | 4564 | 4933 | 5205 | 5292 | 5670.9 | 6080[b] | [a] |
| Turkey | 713 | 839 | 913 | 885 | 897 | 936.6 | 984 | [a] |
| United Kingdom | 2936 | 3018 | 3192 | 3389 | 3210 | 3212.2 | 3289 | [a] |
| United States | 7123 | 7504 | 7786 | 8015 | 8244 | 8482.7 | 8745 | [a] |

[a]Not available
[b]Estimated value
[c]The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law
[d]Difference in methodology
[e]Break in series
*Disclaimer:* http://oe.cd/disclaimer
*From Health: Key Tables from OECD, OECD iLibrary, 2014: OECD. http://www.oecd-ilibrary.org/social-issues-migration-health/total-expenditure-on-health-per-capita-2014-1_hlthxp-cap-table-2014-1-en. Reprinted with permission.* 

particularly at a population level. Crude figures such as life expectancy continued to improve but the link with key interventions was not always clear and the evidence behind the introduction of new technologies and procedures not always transparent nor available.

A medical manager needs to understand the various components and drivers of health care that constitute the service they oversee. The above deals primarily at the macro level, the intent here is to drill into the micro level. As the focus here is specifically on the financial side it is valuable to delve into the advent of activity-based funding as such now represents the mainstay of public sector funding and monitoring.

In the past, activity and outputs in hospitals were very simple measures and often related to raw activity details; the funding was likewise, and based significantly on block grants and specified grants with limited links to outcomes. There was a growing need to be able to define just what was being achieved, outcomes rather than outputs, and to be able to drill this down to an individual patient level. This provided the catalyst for the evolution of what has become Casemix funding or more broadly, activity-based funding (ABF).

A casemix classification was first suggested by Florence Nightingale in 1852. She stated that a system for categorising cases needed to be developed in order to analyse the costs and benefits of the treatment given patients with similar and differing illnesses. It is also noted that Florence lamented the poor quality of the medical record and the lack of detail to allow independent review to take place.

The first serious classification initiative was in acute hospital inpatient care. While the very genesis of Diagnosis-Related Groups (DRGs) dates back to 1969, the paucity of meaningful clinical data delayed any functional implementation for several years. The original intent was as a quality assurance measure which could help point out treatments and processes that may have impacted negatively on patient care; the identification of

**Table 13.2** Health expenditure: Australia

| Year | Total amount in current prices ($ million) | Amount per person in current prices ($) | Percentage of GDP |
|---|---|---|---|
| 1986–1987 | 19,346 | 1199 | 6.75 |
| 1991–1992 | 30,505 | 1755 | 7.21 |
| 1996–1997 | 42,116 | 2298 | 7.56 |
| 2001–2002 | 63,099 | 3255 | 8.37 |
| 2006–2007 | 94,938 | 4603 | 8.73 |
| 2011–2012 | 141,957 | 6304 | 9.55 |
| 2012–2013 | 147,384 | 6430 | 9.67 |

*From Australian Institute of Health and Welfare* July 2014, https://www.aihw.gov.au/reports/health-welfare-expenditure/health-expenditure-australia-2012-13/contents/summary, Creative Commons BY 3.0 Australia (CC BY 3.0AU) license

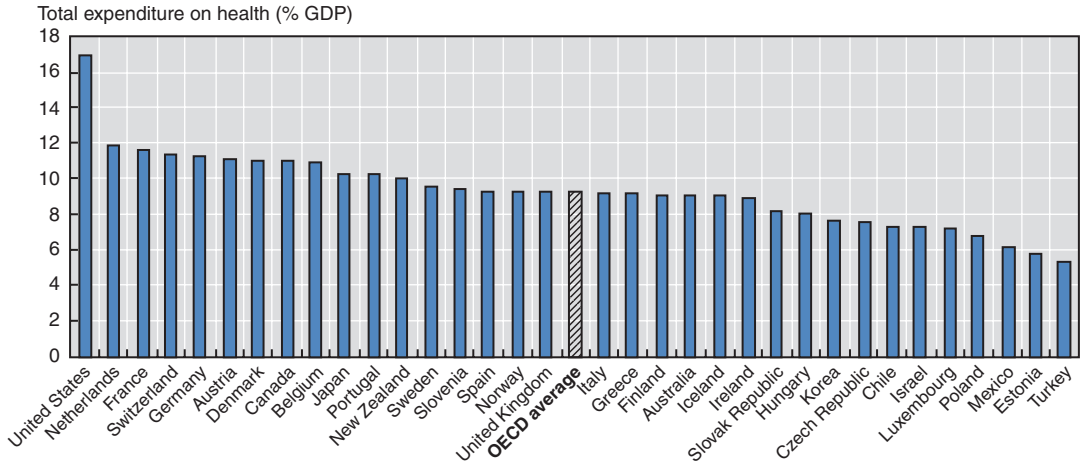


**Fig. 13.1** Total expenditure on health as a share of GDP, OECD countries 2012 or nearest year. Reprinted from OECD (2015), "The impact of cost-containment policies on health expenditure", in Fiscal Sustainability of Health. No data for Australia; Portugal and New Zealand are from 2011. For the Netherlands, current health expenditure data are reported. (From Systems: Bridging Health and Finance Perspectives, OECD Publishing, Paris, https://doi.org/10.1787/9789264233386-9-en. Reprinted with permission)

variances, with the aim being to focus on similarities rather than differences and cohort patients and their care into reasonably homogeneous groups based on diagnosis. Given the financial imperatives unfolding the application of such a system as a funding tool was quickly realised and the rest is history. Even then there were two primary ways to apply such; one being to cost best practice and fund accordingly, the other being to allocate available money more equitably based on care provided and outcomes, stratified through DRGs. It is this latter application that has dominated and forms the basis of acute health care funding in Australia with the original introduction as a funding tool commencing in Victoria in 1992. The core elements of casemix funding based on DRGs were:

- Each DRG was clinically meaningful—understood by clinicians and allowing for the first time a common language to be spoken between management and clinician
- Care within a given DRG was resource homogenous—patients were technically interchangeable when looked at from the care required perspective and resource allocations
- The number of DRGs were small enough to be workable and manipulable
- The mantra was that the dollar follows the patient—funding was provided for the type of care rather than who was delivering it

It is essential to recognise that the advent of DRGs was within and for acute inpatient services and extensive development of this system has followed. The Victorian health system has been the leading state in Australia and the current DRG system uses almost 700 separate DRGs. In the acute sector context, Weighted Inlier Equivalent Separation (WIES) has become the key measure of activity and thus funding. Understanding the genesis of WIES through DRGs and the key parameters governing such is essential; this will be explored further shortly. Other ABF systems have been developed, the second most utilised being Casemix Rehabilitation and Funding Tree (CRAFT) which is designated to cover rehabilitative inpatient care.

There is now over 20 years of experience in Victoria and greater sophistication in matching resources to services and in defining clinical outcomes. The application of ABF in acute and within rehabilitation services has proven a powerful tool for government in improving governance and accountability; the challenge going forward was just how to implement similar systems effectively in all that constitutes our health system.

The National Funding Reform is now driving ABF at a national level. Under this is the Independent Hospital Pricing Authority (IHPA), a Commonwealth statutory authority established for the purpose of calculating and determining a National Efficient Price (NEP) for public hospital services. As part of the desire to achieve ABF wherever it is deemed the most appropriate funding mechanism across the health system, many additional forays into casemix systems have resulted; namely:

- AN-SNAP (Australian National Sub-Acute and Non-Acute Patient) is another classification system that is used in sub and non-acute care.
- Urgency Disposition Groups (UDG) are an *emergency* patient classification system which defines 12 patient categories, classified by disposition (admitted, non-admitted, did not wait or dead on arrival) and triage type according to the "Australasian Triage Scale".
- Urgency-Related Groups (URG) are a patient classification scheme which provides a means of relating the number and types of patients treated in an emergency department.
- Tier 2 Outpatient Clinic definitions provide a national framework for classifying and counting non-admitted service events. (Victoria previously utilised VACS—Victorian Ambulatory Care System).

Overreaching all of these is the National Weighted Activity Unit (NWAU), a measure of Health Service activity *expressed as one common unit*. The aim is to have a single measure to compare and resource each public hospital service whether they are admissions, emergency

department presentations or outpatient episodes, each weighted for clinical complexity. This provides for transparency, accountability, efficiency and equity.

One concern is that using ABF actually promotes fragmentation of care rather than looking at the entire care episode and can create perverse incentives that are not focussed on what is best for the patient. Attempts have been made to try and mitigate this; one example being that of the bundled DRG to capture the entire episode of care from entry into a hospital until return to residence.

Aside from the direct ABF elements, the medical manager must be conversant with the fuller context of costing a service and of analysing financial data to determine where improvements can be made. Given a major cost lies directly with staffing, the subtleties of how to staff effectively and efficiently requires thorough understanding and this will be discussed in detail in the following section. A ready reckoner is also included to attempt to capture all relevant aspects concisely.

The overall framework of health service delivery is inherently complex and extraordinarily dynamic. Many of these dynamic factors are not within the direct control or purview of the management team and include industrial agreements, training requirements set by Colleges and Universities, staff recruitment and movements, again set by external factors in many cases, and political dictates. The challenge thus is how to understand and contextualise the various aspects, appreciate where the main influencers that can be managed are, and then manage. Reducing costs and maximising revenue is the mantra, noting cost reduction has sustainability; revenue streams and opportunities are always less certain.

## 13.2 Content

Understanding ABF is essential as it represents a growing proportion of the funding provided or available and allows a robust framework for costing. The ABF approach to managing hospital services differs from the traditional approach in that it focuses on what health services actually deliver. The DRG and broader casemix funding system has undergone many iterations and is now a highly sophisticated funding mechanism for acute health. The success in greatly enhancing transparency and accountability at all levels has seen multiple other casemix models developed for other components of health care, for example, Rehabilitation medicine, Emergency Medicine and Mental Health; however, the unique complexities of health care across the spectrum continue to challenge this further roll out. ABF for acute inpatient care remains the central pillar and understanding the complexities of WIES is essential.

### 13.2.1 Making Sense of WIES

The formula for ultimately calculating WIES is quite complex and dynamic; each year the formula and its components are revised and updated. Coding each acute inpatient episode starts with the International Classification of Diseases—ICD—Australian update of version 10. There are many thousands of ICD 10 codes, including procedural codes, and each patient is coded through this process as comprehensively as possible. These codes are then analysed through a software program, known as a Grouper to allocate a DRG with the intent being all episodes within the given DRG are reasonably homogenous and the spread of DRGs effectively covers all variations in patient co-morbidities and care provided.

The allocation of the specific DRG is the vital first step as this sets the measures outlined below. The accuracy of the coding is paramount to ensure the right DRG is allocated and strict rules govern this aspect; the principal requirement is the detail must be explicit in the patient's record for it to be coded. Turning DRGs into WIES then follows and that is based on two issues:

- Length of stay
- Weight allocated to the DRG

The core measure is the State average length of stay (SALOS). The low and high boundary or

trim points are usually a simple factor or fraction of SALOS—the high being SALOS x 3 High Trim Point (HTP); the low being one-third SALOS Low Trim Point. All patients discharged within these two points are termed inliers and are funded exactly the same for a given DRG. Each DRG has an allocated SALOS based on extensive historical data analysis through the Health Department.

Each DRG is also allocated a weight to recognise complexity and this is the result of extensive and ongoing assessments across the health sector to recognise and reflect the resourcing required. The weight is specified to four decimal points, demonstrating the level of analysis and to derive the WIES, you simply multiply the number of patient Inliers between LTP and HTP by the specific DRG weight. Patients below the LTP are termed low outliers; those above are termed high outliers, and the formula calculates the equivalent inlier activity to allow each and every patient within the given DRG to be recognised and then weighted. In this way every inpatient can be allocated a WIES and government then allocates a payment for each unit WIES generated; that is the funding stream for acute inpatients in general.

In Fig. 13.2, SALOS is 6 days, the LTP 2, the HTP 18. Any patient with a hospital stay between 2 days and 18 days would be one inlier for this DRG. If this DRG was allocated a weight of say 1.2345, then 10 patients with various lengths of stay ranging between 2 and 18 days would equate to (10 × 1.2345) WIES, or 12.345 WIES. Government allocates a dollar amount per unit WIES and thus the funding is determined. Clearly the cost side of all this can be highly variable and therein lies the challenge.

What is critical from a financial perspective is that once SALOS is reached (day 6 in the example), there is no additional funding until the HTP (day 18) is reached yet additional costs are incurred as the patient remains an inpatient. The desire is thus to ensure the patient can be discharged as soon as they reach the LTP (day 2, becoming an inlier), and ideally before they achieve SALOS, after which the funding technically ceases until the HTP reached.

One direct result of improving efficiencies and shortening the lengths of stay is that each bed-day actually costs more as more is done for the patient in that time. Previously the costs would be spread more widely and generally reach a higher

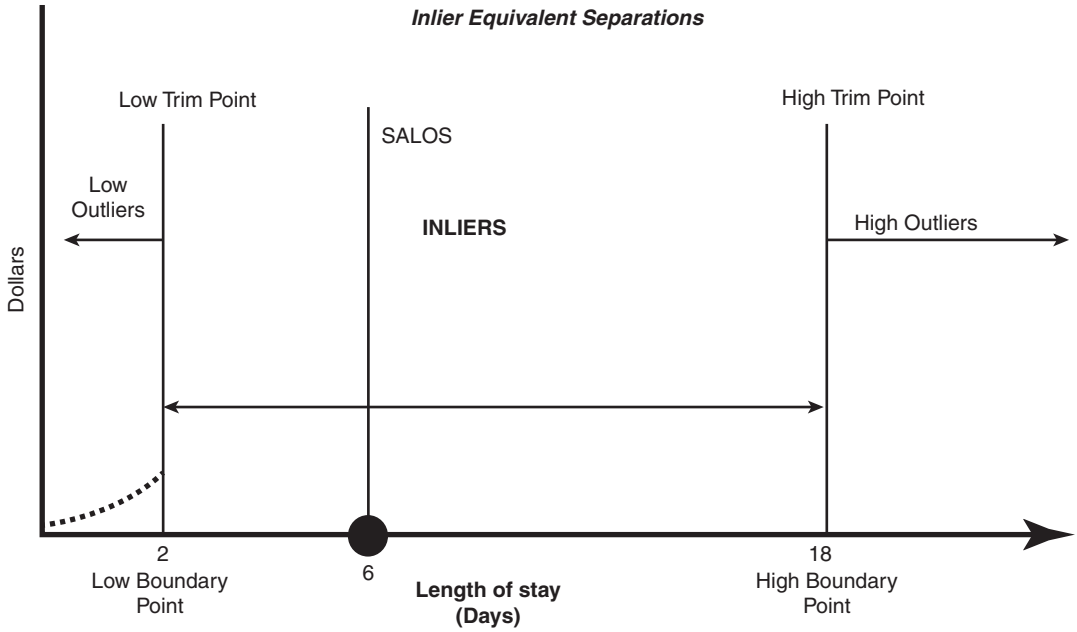


**Fig. 13.2** Sample Diagnosis-Related Groups

level. Compressing the care into a shorter time frame increases the daily care costs and if bed occupancy remains very high and bed numbers remains the same, total costs increase but obviously more care has been delivered. In a capped funding environment with set activity targets, there is no or limited financial support to undertake extra activity, so this does need to be closely monitored and managed. The logic is to try and reduce bed numbers to that level that matches the funded activity as they generate a fixed cost element even when not occupied. A macro level measure often used for comparisons is the number of hospital beds per 1000 population; AIHW 2011/12 data shows an average of 2.6/1000 public, 3.9/1000 including private. Twenty-five years ago, the combined figure was greater than 6.

While the above is but a brief foray into the domain of Casemix funding, it does outline the main elements and the vigilance required to maximise the recognition of appropriate activity. A small change either way in the WIES recognition can have significant financial impacts, noting that a single WIES is worth around $4500 and for a service with an annual target >20,000 WIES, a 1% change either way equates to $900,000. Accurate and comprehensive clinical notes allied to effective coding ensures optimal recognition and hence funding.

While WIES is a significant component of any service providing acute health care, it does often represent less than 50% of the total revenue. All the various funding modalities require understanding and we are currently seeing ongoing significant change in that space. Where different funding and classification systems are in use for the respective care elements, the manner in which the patient transitions through the various care components becomes pivotal. If a patient is likely to require rehabilitation or subacute care following an acute episode and prior to return to their residence, then the timely movement across the different streams has significant cost and revenue implications. Where a hospital oversees all the various components, the intent is effective cooperation and transitioning to enable the most effective and efficient care to be provided with no delays—the counsel of perfection. Ideally, the patient moves from the acute setting before SALOS is reached so the funding is maximised, and likewise if in another service that operates under an ABF framework. Where per diem payments are made, length of stay becomes less critical but as always, patient flow is important and bed blocks will ripple throughout the hospital.

For the organisation at the most basic level there are two core financial issues to focus upon:

1. Revenue—how is the overall service funded including all the various components?
2. Expenditure—What does it cost to deliver the services?

Setting aside the revenue aspects, the expenditure side is where we can exert the most influence and help ensure sustainability. Revenue will always have much more uncertainty and is often subject to the political imperatives operating and the associated volatility, and while it cannot be ignored, the expenditure components do provide a more robust and longer-term approach to financial sustainability. It is also where the transformation in health care will occur as we move forward.

## 13.3 Analysing and Managing a Budget

Health care is increasingly facing a difficult financial management environment with a growing and ageing population driving demand, increasing technology and capability to treat/cure providing new therapies, and greater community expectations driven by improved health literacy and awareness. Resourcing will not keep pace in a linear fashion and the eternal quest for greater productivity is now integral. Ultimately the health system requires transformational change so that the very way in which care and services are delivered is fundamentally structured to be sustainable, yet be able to grow and continually adjust to future demands and improving technology. The focus in Australia is on the short-term time frame; and the real transformational change required will take many years, and involve the

co-operation and persistence of parties at all levels to achieve.

Healthcare, especially public sector health care, has a very high proportion of costs directly linked to staffing, conservatively estimated at 70% of operating costs, and a quite inflexible industrial environment. Hospitals are generally most economical when operating at high occupancy levels, noting that the most effective and efficient operating level is however around the 90–95% bed occupancy mark and that running at very high levels of occupancy can be counterproductive both in terms of patient safety and operational efficiency. The challenges with the desired occupancy level relate to accurate and nimble resource management and the predictability of activity; how quickly can you reduce staffing or expand staffing to match requirements being the foremost issue.

Ultimately, the task is to keep costs as realistic as possible and to maximise all sources of funding and achieving the targets and outputs set. Waste at any level is anathema.

There are five critical steps in managing finances in a public hospital setting:

1. Understand the funding framework and the caveats therein, including specific targets and governmental requirements.
2. Understand the revenue streams and opportunities to maximise. While this is a subset of the overall funding, it is often ignored and not fully assessed and promoted. There are often time-limited opportunities that can be availed but with an end-point.
3. Build a logical and accountable budget based on the proposed service activities, which optimally are well defined.
4. Analyse and understand when things vary, either positively or negatively—what happened and why. Can you clarify and justify?
5. Learn and embed for the future—stay flexible and responsive and aware of the political contexts and policies.

Budgets need to be built on as robust a basis as possible and the concept of a zero base budget build philosophy serves the new medical manager well as it provides a very strong understanding from the ground up as to what costs and cost structures are envisaged, and why, for a given level of activity and service. We also do look at fixed and variable costs in general, noting that the variable elements are often activity driven. The single biggest cost in a health budget will be staff costs, noting most are 24/7 services and have a wide range of health disciplines represented as well as the administrative and support services staff. Many of these staff groups will have individual industrial awards of significant complexity and the medical manager ideally should be an expert regarding the medical industrial framework and requirements.

Within the staff cost umbrella there is a core of parameters that require full understanding and astute management, namely:

- The industrial awards or Enterprise Bargaining Agreements, renewed cyclically
- Rosters and roster practices—absolutely critical—including for all doctors, not just Doctors-in-Training (DiT)
- Staff classifications and classification profiles, including annual classification/bracket creep
- On-call and recall arrangements and requirements
- Special local arrangements, especially at the senior medical level and inclusive of Craft Group Agreements. These are usually driven by cohorts of full-time senior medical staff in disciplines with recruitment difficulties
- Custom and practice activities—actions that are embedded but not always well understood or transparent
- Leave management

## 13.4 Medical Workforce and Budget

A medical manager should be an expert on the medical workforce and the industrial environment in which they work. Understanding the minutiae of the relevant industrial awards and local agreements is critical and working effectively within that framework paramount.

There are many variations on a theme here so the intent is to stay broad but focus on four essential components:

1. Rostering sets the scene for how you anticipate the service will be resourced and at what level, including after normal hours. Each position should have a duty roster or work schedule that apportions the work required across the role reasonably specifically. This includes both DiT and Senior Medical Staff (SMS), although the specificity sits best with the DiT workforce. An accurate duty roster recognises what is anticipated and allows a robust budget to be allocated, included rostered overtime where appropriate. The duty roster should also specify dedicated training time, especially at the registrar level, to meet award obligations.

   Once you have duty rosters they can be collated into a unit level roster that outlines the 24/7 service cover required. Where there is not a routine rolling 24 h roster, as say would operate within an emergency department, there needs to be a clear delineation between on-duty and on-call, should the latter be required. The key measures for the DiT workforce thus become:
   (a) Un-rostered overtime—this should be minimal if the duty rosters are accurate and virtually zero in services with a 24 h rolling roster.
   (b) Callbacks during on-call periods, especially if the award pays a premium for such. Heavy numbers of callbacks should trigger a review of the Equivalent Full-Time staff (EFT) and unit rosters to see what can be better covered with existing resources by staggered start and finish times, or if an additional EFT may be at least cost neutral and provide better and safer work conditions for the DiT.

   If overtime and callbacks are high, strongly consider increasing the EFT; it will invariably be advantageous at multiple levels.

   For SMS, duty rosters are less effective but what does need to be clearly articulated is what specific elements are required, for example, theatre sessions, outpatient clinics and ward rounds, including weekends and public holidays. On-call aspects also need transparency and a clear mechanism for recording and payment.

   Within the SMS group, the ideal mix of full time and fractional or visiting medical officers (VMO) is challenging and does depend upon the discipline in question, the market forces and the services required. Full-time SMS usually provide the fabric of the unit and the administrative elements; they are by intent committed to the service long term. VMO provide the opportunity to get a wide range of clinical skills across a discipline and bring different perspectives to the service, so the synergies created are important. Financially, the differences have now ameliorated significantly with neither group necessarily being more or less costly. What is sought is the right mix within available budgetary constraints, and this will vary from hospital to hospital and discipline to discipline.

2. Analysing medical classifications is best addressed by splitting the DiT group from the senior medical staff, for example, consultants. Again, the specifics within the relevant industrial awards are pivotal to know and apply, including how are classifications determined, when and what constitutes an annual increment, and what specific classifications entail.

   The DiT group is usually engaged 1 year at a time and progress is dependent upon time worked to advance to the next level. Unfortunately there is not a clear link to actual work performance and the egress of time will see most progress up the scale annually. Within that however are always some specifics; within the Victorian context a Registrar must achieve an average of >24 h worked a week to gain recognition for the year.

   Vocational trainees or Registrars are determined by the respective medical College and actual engagement may not be at the discretion of the service which can be problematic at several levels. Staying with the

budgetary focus, the driver is the classification and how this links to the role anticipated and the budget profile established. Registrars in Victoria can be classified at one of six different levels based solely on time in the training programme; each level brings a base salary increase >$5000 per year, with one specific annual increment bringing an increase of some $15,000 a year on base (year 4–5). If a cohort of registrars are retained locally and move through this level, the financial impact can be considerable and slip under the radar, adding well over $100,000 to the base costs in a single unit in a single year. Close attention must be paid to the various classifications and a unit classification profile, such as mix and match of seniority sought, should underpin the recruitment process to ensure no classification surprises arise.

With SMS, the date of Fellowship sets in train the classification process. For full-time staff, there is annual progression without any link to actual work performed, meaning you can be on extended leave (maternity as an example) yet the passage of time alone will see the classification increase. For a VMO, the system in Victoria takes into account two aspects:

(a) The length of time since achieving Fellowship (experience factor).
(b) The weekly time commitment to the hospital. As the hours per week increases, the actual hourly rate increases for *all hours worked* and this can catch some unawares.

Further, an accurate profiling of the SMS is worth noting, meaning the spread of classifications (seniority). Hospitals can find that the proportion of the SMS at the most senior levels is high and that carries an obvious cost impact. A spread across all levels provides a number of advantages, including career pathways for upcoming young consultants, although this is much more difficult to recruit to and most hospitals have an SMS profile skewed to the senior end.

The tips within classifications are:

(a) Have an established classification profile for all DiT and stick to it as best able.
(b) Watch annual increment changes that overlay standard award increases.
(c) Be wary when a VMO hours are increased, the hourly rate increases for *all* hours worked.
(d) Know the classification requirements and apply robustly.

3. Special agreements at individual and craft group level which add another layer to award entitlements. At many larger hospitals, special agreements will be in operation at both a craft group and an individual level. These have often been in place for many years and agreed when market conditions were more favourable for the specialty or the specific doctor, and many such agreements were not well articulated at that time.

   Where such are in existence, it is important to clearly articulate the agreement as soon as possible. Market forces have changed dramatically and public sector posts are now highly valued and sought after. The act of clarifying the special conditions will often provide some opportunities to better structure entitlements and to also incorporate award changes that may have since arisen, for example, Continuing Medical Education (CME) entitlements. Almost all SMS have been engaged on a time-limited basis, and although the exact value of such is unclear, it does provide the opportunity to revisit the past and seek to negotiate a more transparent and equitable agreement going forward.

   The value of knowing what is entailed from the budgetary perspective remains essential; all additional costs must be factored in and acknowledged. Over time, these should be standardised and progressively modified, especially with new recruitment even though that may set a double tier and inequity. Flexibility in how the EFT is structured between full-time and VMO SMS here can be useful.
4. Leave management, including leave for continuing medical education. Leave management for all

staff is a vital financial requirement, but with medical staff it is imperative given the high wages involved and the often deficient systems previously governing such, resulting in large accrued liabilities. Attention in the past to recognising and correlating medical leave has been variable at best; current requirements and good Human Resource (HR) practices mandate such. CME as a subset requires due diligence in its administration and a robust framework and approval process, including any re-imbursement requirements.

A major concern relates to leave accrued at one classification level but taken and paid at a higher level, especially if, for example, a Registrar moves into a Consultant post with significant unexpended leave. Each annual engagement for a DiT should include rostered or structured annual leave to match the entitlement; for SMS the expectation is that leave accrued annually is planned for utilisation similarly to negate any long-standing excesses. CME leave likewise needs careful planning and adequate advance notice to negate any negative influences on service provision.

Where leave accrued cannot be taken within the same year, the budget must reflect such appropriately. An example is with the current intern year whereby most services provide for 2 weeks annual leave during the first year but then have 3 weeks carried until the year end. Given there is no opportunity to not replace, the cost for the 52 weeks is actually 55 weeks and must be recognised as such.

## 13.5 Other Budgetary Considerations

### 13.5.1 Expenditure

Other significant cost aspects include diagnostic services, and whether outsourced or provided internally, pharmaceuticals, consumables (particularly in procedural services where prosthetic costs may be excessive and driven by multiple personal preferences rather than a consolidated hospital wide agreement), and what may be grouped as general business costs—food, laundry, fuel, light, power, insurance, transport, and facilities maintenance. Many of the drivers for these costs relate directly to clinical practices and personal ways of providing such. It is not within the scope to detail this area but such does promote the value, and not just financially, of evidence-based care pathways with logical reasoning beyond key decisions.

The number of beds actually available determines the potential activity and the likely infrastructure costs. Hospitals invariably have seasonal influences on bed requirements and activity targets should reflect as best able the seasonality of the work. Where leave periods will be high, targets should be lower and beds closed accordingly. Conversely in winter, full capacity is usually required and thus targets are set higher. Within this overall context bed numbers should be flexed across the week and drop to recognise lower elective work where appropriate. Aligned within this is the way the component units are structured and how the receiving rosters are operated, with the intent being to balance activity and work across the specific discipline units as equitably as able so workloads are managed effectively and efficiently, promoting patient flow.

### 13.5.2 Revenue

How does the health service secure its funds? Public sector services will receive the bulk of funds through annual allocations from government-based and agreed activity targets and various service requirements. These are augmented by private patient revenue, such as Medicare, health funds, compensable organisations such as Worker's Compensation, Traffic Accident Commission, and Department of Veteran Affairs) paid directly to the organisation as well as other fund raising and cost recovery initiatives, operated by the organisation directly, for example, car parking and salary packaging.

The utilisation of medical Rights of Private Practice (ROPP) is a very positive way to both enhance overall revenue and financial support for the doctor operating such. These have now

become industrially enshrined within Victoria and allow full-time public medical staff to raise private revenue through direct service provision. There are a number of models that can be undertaken but they fall under three broad types:

1. A 100% donation model—meaning the doctor donates all monies raised to the hospital.
2. A facility fee model; or fee sharing agreement, whereby the hospital raises a fee for providing facilities and support for the conduct of private practice.
3. An independent right of private practice; usually undertaken off site from the actual hospital, with the doctor retaining all income raised.

Models 1 and 2 confer medical indemnity through the hospital; model 3 requires the doctor to self-indemnify for the activity undertaken. Underpinning this is the need for a thorough understanding of the Medicare system, in particular the item numbers utilised and their definitional requirements.

### 13.5.3 General Principles

1. Reduce expenditure—staffing costs the big ticket.
2. Improve Revenue (in Casemix funding system always check validity of coding and recognition of just what you do. A 1% increase in WIES can mean large revenue gains for work already done—value of coding audits—easy win). Can you enhance transfers between funding streams; convert long stay acute to joint acute and sub-acute funding streams? Private patient activity, Medicare opportunities, ROPPs?
3. Short-term wins versus long-term losses—changes must be sustainable and not compromise strategic plan and objectives.
4. Any significant changes must accord with Governmental policy, role delineation and Industrial dictates (e.g. Nurse/patient ratios). What is core business?
5. Primary focus will always be on staffing EFT, classifications and profile, rostering and work practices, clinical staff versus non-clinical, and what can be safely outsourced.
6. HR practices must be accurate and consistent, including approval to pay for overtime/callbacks and how these are recognised. It is also vital to confirm what payments attract what additional recognition; for example, superannuation should not be paid on call-back payments.
7. Pharmaceuticals and Diagnostics usually represent between 10% and 15% total operating costs; are these being appropriately utilised and can costs at purchase be controlled/reduced?
8. Consumables; how are they sourced and what alternatives, can we get bulk purchase power, what wastage is present, etc.
9. Activity is difficult to control; once a person is in hospital, we will make a "patient" of them. Can we divert to a more appropriate care provider or better manage out of hospital? The greatest influence hospitals can exert is over elective surgery but remembering there are increasing accountabilities for meeting KPIs regarding such.
10. Can we disinvest? What is our core business and what environment are we operating in; the physical and community setting, demographics, sector issues, nearby services including alternative service options and models?

## 13.6 Ready Reckoner

Outlined below is a tool to enable a new medical manager to rapidly assess and analyse a budget and take actions to control and reduce the deficit in the short and the longer term. The approach taken is one of facing an over-budget situation and having to address quickly and appropriately. Whatever areas are under the direct responsibility of the medical manager take precedence but within the overall context of the organisation, noting internal cost shifting is of no benefit overall and is self-defeating. Table 13.3 provides a quick reference of medical and corporate actions.

**Table 13.3** Quick reference of medical and corporate actions

| Medical | Corporate |
|---|---|
| • Centralise delegation for staff appointments | Limit back filling of vacancies |
| Salaries/Wages | Limit use of external consultants |
| • Ensure equitable participation by VMO and Staff Specialists in on-call roster. | Un-rostered overtime Accumulation/payout of untaken ADO's |
| • Cross Check for double dipping (callbacks) | Salary Packaging |
| • Examine OPD sessions utilisation | JIT Stock controlling/ management systems |
| • Ensure senior people are doing the rosters. | Library—rationalise |
| Operating Theatre (prevent late finishes)<br>• Patient flow<br>• Late starts<br>• Ensure only true emergencies A/H<br>• Length of operations and turnaround times<br>• Prosthesis use<br>MBS: Ensure complete and appropriate billing<br>JMO: A/H rostering | Motor vehicle fleet/ transport—size, efficiency, allocation, usage, courier services<br>FLP/Water—simple actions to reduce and promote Green.<br>Contract management—how effective?<br>Conference attendances and costs<br>Ensure revenue is at its maximum (appropriate billing/claiming/referral) |

### 13.6.1 Actions

The outline below is a compilation of many peoples' inputs, collated over years and fine-tuned through experience.

**Analysis Phase**

1. **Analyse the budget**—full details should be discussed through the Chief Financial Officer and Executive team. At the global level, is the hospital overactivity or underactivity targets and what is the budget situation? Over budget and under activity is the worst scenario while over budget and over activity paints a potentially different picture but does bring into play the management of demand and all that entails.
   (a) What specific areas are over budget?
   (b) Reasons why and justifications?
   (c) Links to activity, planned and unplanned
   (d) Target the complete EFT—full break down of where and why, remembering the high fixed costs of staff
   (e) Assess other HR measures such as Overtime, Locum/Agency utilisation for staff, sick leave, leave management at all levels and leave accruals (inc ADOs); staff turnover, etc. Check what is being paid against what is expected to be paid—there can be an unexpected disconnect.
2. **Analyse Activity**
   (a) Tracking against activity targets, what is the situation and what has changed?
   (b) Elective versus non-elective; actual versus projections.
   (c) After-hours activity—has it increased (watch Fee for Service payments to SMS as a subset).
   (d) Multi day stay versus Same Day Stay; check day-of-surgery admission rates.
   (e) Bed occupancy rates and any active "seasonalisation" for bed numbers?
   (f) Bed blocking and long stay patients; is patient flow optimal?
   (g) ED specifics including triage and admission splits and percentages.
   (h) Theatre activity again elective versus non-elective; after-hours activity and nature thereof (was it truly "life or limb?").
   (i) Casemix analysis—LOS/SALOS/ Outliers, etc.—benchmarking externally.
   (j) What has grown ahead of expectations, what has not matched expectations?
3. **Contextualise**
   (a) What is happening demographically, epidemiologically and sector wide?
   (b) Benchmarking with peer organisations.
   (c) Are we seeing something unique to us or a more generalised trend?
   (d) Socioeconomic factors - is there a major swing to public or to private?
   (e) The "competition" and local environment.
4. **Identify** *Areas where costs might be reduced*
   (a) Staff related:
      • EFT numbers and levels—look at clinical and non-clinical—what was budgeted and where are we now?

- What is the recruitment cycle, noting for most DiTs it is a yearly cycle based on the clinical year not a financial year. Any changes going forward will need to match that time frame and thus may be delayed.
- Have all vacancies been backfilled and if so, with what time lag? (Were, for example, any leave accruals allowed to run through before replacement?). Can you delay or simply not replace?
- Rosters and roster practices—what has changed or is missing? How accurately do these reflect the actual work performed?
- Overtime (vs extra staff member); on-call versus on-duty, etc. Note that in some cases, it may well be preferable to actually increase EFT to reduce overtime by an even larger amount.
- Staff Profiles and classifications—are we "top heavy"- full timers versus part timers and VMOs. Did classifications significantly increase; beware the bracket creep; especially within Allied Health.
- Rostering practices and work practices; review and economise.
- Locums; Agency fees—especially Nursing.
- Role Substitution (e.g. Nurse practitioners).
- Administrative staff—numbers and functions.
- Catering/cleaning/support services.
- Outsourcing for non-clinical services.

(b) Wastage/False economies: initial business cases that have failed to deliver or sustain; new therapies versus clinical guideline-based medicine, transitional care. Wastage implies just that in any area, certain work practices may include in-built wastage that can be eliminated.

(c) Pharmaceuticals—top ten by cost and by volume—tracked and monitored—patterns and trends. Look at generics and biosimilars as cheaper alternatives.

(d) Diagnostics—reduce unnecessary investigations, drive clinical pathways and standardised care sets.

(e) Consumables—can we achieve a better deal with the various suppliers? How do we package "care sets" and are we wasteful in this regard?

(f) Contract management—how closely are contracts with external agencies in particular monitored and enforced?

**A false economy** refers to an action which saves money at the beginning but which, over a longer period of time, results in more money being wasted than being saved. We often fail to prove what was anticipated was actually achieved long term.

**Areas where revenue might be increased**

(a) Ensure activity/coding is complete (ensure clinical coding staff are adequately oriented, appropriate software enhancements are available, and WIES is optimised). Consider engaging SMS to audit select areas to ensure.

(b) Per patient/episode funding—increase throughput, transfers, reduced LOS.

(c) Private patients—how tracking; are we billing accurately and comprehensively? CMBS audits including what item numbers are being used and how?

(d) Car Parking revenue—staff and public. How long since reviewed and how do "we" benchmark with others?

(e) Staff benefits—e.g. promote salary packaging, do in-house and keep profits.

(f) Rights of Private Practice—have they been effectively established and operated in all areas?

(g) Medicare funding (e.g. Movement to Medicare outpatients, Diagnostics).

(h) PBS costs and revenue—is this maximised?

(i) Access special purpose funding/grants.

(j) Was the original budget appropriate?

(k) Access to special programme funding.

(l) Known increase in costs, but no increase in budget (i.e. something not recognised).
(m) Check if long-term capital management has been distorted by short-term fixes: programme funding should be used (in the first instance) for its intended purpose.
(n) Check if changes to casemix could help (e.g. same day rather than overnight oncology)
(o) Assistance from other services or service elements (e.g. improved aged care placing/HITH).

**Non-demographic growth**

1. Per person utilisation of resources.
2. Improvements in Technology or changes in its use.
3. Significant changes in clinical practice that impact but are not recognised.

### 13.6.2 Actions Initiated/Planned

If you are facing a serious budget shortfall, this requires all hands to the pumps and strong leadership. Engage and inform the staff, especially the SMS, to firstly be aware and then to assist where possible. Note that while the SMS may only represent a small percentage of the total Budget, they "control/influence" a very large amount of the expenditure.

Acknowledge there will be some pain and most likely some staff losses; unless we demonstrate we are able to control our budget, we risk an even worse situation—those who cannot manage get managed.

Meet early and meet often—provide regular feedback and reports against goals; transparency is essential.

**HR Elements—Actions**

- Freeze on new appointments.
- Delay replacement and justify—run out any accrued leave before replacement.
- Maximise uptake of leave (usually already accrued financially so leave taken *and not backfilled* becomes a saving).
- Control overtime and limit callbacks - check if rigorous systems are in place.
- Audit payments and ensure aligned to expectations and industrial requirements; are overpayments being made; is superannuation being paid inappropriately?
- Improve poor work practices; especially rostering.
- Reduce Agency costs.
- Longer term—review staff profiles and classifications.
- Outsourcing/privatising support/non-clinical services.

**Activity Elements**

- Utilise quiet periods for shut downs/closures.
- Can you limit high cost surgery?
- Can you reduce after hours' surgery, including structuring in-hours emergency lists?
- Review and decrease or cap prosthetic/consumable expenditure.
- What flexibility exists within required targets? Can a slight reduction in targets save significant money? (dependent on the operating rules and targets but as an example, achieving 99% of target can see only a partial loss of funding).
- Diversion strategies, including outreach (especially Residential Care) or alternative services.

There is an inherent dynamism in managing any budget and more so if you are new to the situation. Regular review and fine tuning of the strategies engaged are required to stay nimble and to ensure minimal impact on the actual delivery of care. Once established within the medical management role, the intent is a robust budget development process that sets the scene, linked as best able to projected activity and reconciled regularly.

## 13.7 Reflections

1. Ask colleagues what challenges them the most in managing their budgets?
2. Think about your own leadership practice and how the cost imposts impact upon it? How do budgetary pressures influence your management style?

3. How do you prioritise competing resource/service demands in a financially restrictive environment? Can you ensure objectivity in your decision-making?
4. Within your management team, who do you seek advice and support from with a challenging financial situation?
5. Do you feel comfortable and confident in managing the industrial dictates for your workforce? If not, how can you enhance or better manage?

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# Research Governance

# 14

Peter Lowthian

**Learning Objectives**
By the end of this chapter, the learner should be able to:

- Identify the dimensions of contemporary governance of research involving humans.
- Inform an understanding of the medical administrator's place in organisational research governance.
- Understand the historical background to the development of *Good Clinical Practice.*
- Identify the components of a research governance framework.

## 14.1 Introduction: Healthcare and Discovery

Education and research are inherent to modern healthcare. The outcomes of research can contribute to future developments, and improve individual and population health.

Research can be present in different ways, ranging from analysis of administrative data, through to surveys; simple improvement activities; single psychological or physical interventions, medication and other therapy interventions; complex interventions in multiple centres or across populations; and the use of human tissue. Whilst the complexity varies, in each case there is the need for identifying the research question or questions, planning the intervention, identifying the risk and resource utilisation, ensuring measurement or evaluation of the outcomes, and disseminating the outcomes.

Patients and healthcare workers are at the centre of all clinical research and quality improvement activities, and their rights must be protected at all stages. Healthcare organisations and often the community are also integral partners in research, and their needs and rights are also paramount. Finally, the researchers and academic institutions are key participants in this process to ensure the maximisation of benefit and minimisation of risk to all concerned.

The key issue in research governance is to ensure that the rights and effects on each of the participants in research are protected and managed to ensure the best outcomes for all concerned. At all times the rights of participant patients are paramount.

## 14.2 Defining Research Governance

For the purpose of this chapter, research governance only includes research involving humans. The field of animal research ethics is a completely different area, which has specific needs.

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E. Loh et al. (eds.), *Textbook of Medical Administration and Leadership*,
https://doi.org/10.1007/978-981-10-5454-9_14

Some institutions have research agendas which include animal and human research. It is essential that there are separate defined research governance frameworks and systems in place, which also include ethics.

The term research governance covers a range of issues. No single document or definition fits all contexts. It is worthwhile exploring different organisational definitions, as each tends to add a separate dimension.

The National Health and Medical Research Council website Australian Clinical Trials states that "*Research Governance refers to the processes used by institutions to ensure that they are accountable for the research conducted under their auspices. To be properly governed, research must be conducted according to established ethical principles, guidelines for responsible research conduct, relevant legislation and regulations and institutional policy. Research governance is also about credentialing and training of researchers and managing institutional risk*" [1].

These concepts have been distilled nicely as "*Governance is the system of administration and supervision through which research is managed, participants and staff are protected, and accountability is assured*" [2].

The Imperial College London website states that "*Research Governance can be defined as the broad range of regulations, principles and standards of good practice that exist to achieve, and continuously improve, research quality across all aspects of healthcare in the UK and worldwide*" [3].

This definition adds to other definitions of research governance, the concept of continuous improvement of research quality, as well as extension beyond an institution into the community.

## 14.3 Why Is Research Governance Important to Medical Administrators?

Human research in one form or another occurs in practically all healthcare organisations. Research and its governance are always changing, and the internal and external regulatory requirements need to be continuously reviewed with updating of the framework when necessary.

Whilst research can deliver improvements in knowledge and treatment for our patients, there are potential institutional risks including patient harm, financial costs, and individual and organisational reputation damage. Research governance must be part of the risk management strategy of all healthcare organisations.

Medical administrators may not be central to their organisation's research governance framework. However, they need to be part of it, and have a full understanding of all components, as well as having an oversight that includes performance reports. It is also important that medical administrators have input into their organisation's research agenda, which is a crucial part of the research governance framework.

An issue which occasionally arises in academic healthcare organisations concerns researchers who have funding for specific projects which may not fit within the organisation's overall research agenda. In these circumstances, pressure can be applied to those responsible for governance to approve a project just because it has funding. Knowledge and understanding of the possible different agendas and the organisation's research framework is essential to inform discussion and decision-making.

## 14.4 Historical Perspectives on the Development of Robust Systems of Research Governance

Atrocities masquerading as science in the twentieth century highlighted the need for protection of individual human rights in medical research. Unfortunately, the examples were widespread in type and in time.

Experiments were conducted on individuals in captivity and without consent during the Second World War. As a response to the evidence provided in the trials of war criminals before the Nuremberg Military Tribunals [4], the Nuremberg Code was developed in 1947, an attempt to

establish a framework which quantified and protected the rights of individual participants in human research experiments [4].

The World Medical Association's Declaration of Helsinki was subsequently developed in 1964, and revised most recently in October 2013, "*as a statement of ethical principles for medical research involving human subjects, including research on identifiable human material and data*". Whilst addressed primarily to physicians, the Declaration encourages others involved in medical research to adopt the principles. The Declaration attempts to ensure that in future, the rights, safety and well-being of individual participants in research are paramount, including being placed above all other considerations in clinical research [5].

The Declaration of Helsinki was used as a basis for the development of guidance for the conduct of clinical trials by the Tripartite International Conference on Harmonisation (ICH) in 1996. The guidance was developed with consideration of the current good clinical practices principally of the European Union, Japan, and the United States, as well as those of Australia, Canada, the Nordic countries, and the World Health Organization. This guidance has become known as the Good Clinical Practice guidelines [6].

In spite of the presence of performance guidelines, regulations and laws, research misconduct occurs in all jurisdictions. Misconduct can take many forms, ranging in severity from the most severe forms of invention of data or cases and wilful distortion of data, through to less severe actions or omissions such as not disclosing conflicts of interest, or failing to attempt to publish completed research [7]. The extent of misconduct is unknown, but an understanding of fraud and deceit in medical research [8] is essential to ensure that organisational research governance remains relevant.

The effects of research misconduct can be far reaching. Research published in 1998 in the highly regarded The Lancet (Lancet) implied a link between the measles, mumps, and rubella (MMR) vaccine and a so-called new syndrome of autism and bowel disease [9]. The paper created community concern regarding the safety of vaccination and contributed to a slump in vaccination rates in the United Kingdom and Australia, for these diseases which are of major public health concern. The Lancet subsequently retracted the article from the published record, with the paper declared a *fraud* [10]. This case highlights the ongoing role of authors, editors, Ethics Committees, administering organisations and independent investigational committees in research governance, as well as the need for registration of research protocols on public registers.

## 14.5 Good Clinical Practice

Good Clinical Practice (GCP) is an international ethical and scientific quality standard for the design, conduct, recording and reporting of research involving humans. The Australian Therapeutic Goods Administration published notes for guidance on GCP in July 2000 [11].

Many countries have adopted GCP principles as laws and/or regulations. The United States Food and Drug Administration regulations for the conduct of clinical trials, which have been in effect since the 1970s, address both GCP and human subject protection. Since 2004, compliance with GCP has been a legal obligation in the European Union for all trials of investigational medicinal products.

The thirteen core principles of GCP are:

1. Clinical trials should be conducted in accordance with the ethical principles that have their origin in the Declaration of Helsinki, and that are consistent with GCP and the applicable regulatory requirement(s).
2. Before a trial is initiated, foreseeable risks and inconveniences should be weighed against the anticipated benefits for the individual trial subject and society. A trial should be initiated and continued only if the anticipated benefits justify the risks.
3. The rights, safety, and well-being of the trial subjects are the most important consideration and should prevail over interests of science and society.

4. The available nonclinical and clinical information on an investigational product should be adequate to support the proposed clinical trial.
5. Clinical trials should be scientifically sound, and described in a clear, detailed protocol.
6. A trial should be conducted in compliance with the protocol that has received prior institutional review board (IRB)/independent ethics committee (IEC) approval/favourable opinion.
7. The medical care given to, and medical decisions made on behalf of, subjects should always be the responsibility of a qualified physician or, when appropriate, a qualified dentist.
8. Each individual involved in conducting a trial should be qualified by education, training and experience to perform his or her respective task(s).
9. Freely given informed consent should be obtained from every subject prior to clinical trial participation.
10. All clinical trial information should be recorded, handled, and stored in a way that allows its accurate reporting, interpretation and verification.
11. The confidentiality of records that could identify subjects should be protected, respecting the privacy and confidentiality rules in accordance with the applicable regulatory requirement(s).
12. Investigational products should be manufactured, handled, and stored in accordance with applicable good manufacturing practice (GMP). They should be used in accordance with the approved protocol.
13. Systems with procedures that assure the quality of every aspect of the trial should be implemented [6].

Increasingly, jurisdictions across the world require that all researchers should have training in Good Clinical Practice. Contemporary standards for good research governance now means that all chief investigators and principal researchers and all researchers should receive training in GCP, and that governing organisations should keep records of compliance.

## 14.6 Research Governance Frameworks: What Should they Look Like?

A research governance framework describes the processes an institution puts in place to govern research and to ensure that a robust system exists to guide the institution and researchers in the processes of ethical review and responsible research practices, including the management of violations of practice.

All healthcare organisations should have in place a research governance framework because of the ongoing improvement activities and research activities which are part of modern healthcare. To ensure that confidence by all stakeholders in research occurs, the research governance processes should be transparent and publically available, and the relevant decision maker within the institution who is usually a senior officer should be clearly identified. The governance framework should also clearly identify the roles and responsibilities of all those involved in research, including sponsors, employing organisations, chief investigators, researchers and healthcare professionals.

National frameworks and guidelines are in place which set clear standards for healthcare research. Examples include the United Kingdom's *Research Governance Framework for Health and Social Care,* the American *Clinical Trials and Human Subject Protection* and Australia's *National Statement on Ethical Conduct in Human Research (2007)—Updated May 2015* and the *Australian Code for the Responsible Conduct of Research*. Such documents are updated as needed according to legislative changes and research experience.

The specific requirements for institutional research governance frameworks will vary according to national and jurisdictional regulations and legislation and institutional standards, but all should include common elements. These include protection of research participants, the safety and quality of research, privacy and confidentiality, financial probity, legal and regulatory matters, risk management and monitoring arrangements, and the promotion of good research culture and practice [12].

Independent ethical assessment of research involving humans, by an appropriately constituted human research ethics committee or body, is an essential part of research governance. The precise nature and details of the review body will vary depending on the assessed level of risk of the research to the participants, and according to the national and jurisdictional requirements.

Institutional assessment of research projects is the other key and separate aspect of research governance review, as it is up to the authorising and governing institution or hospital organisation to make the final decision about which research fits with the organisation. This decision will be informed by the institution's consideration of the risks involved in the conduct of the research against the institution's levels of tolerated risks, as well as by the importance of the research to the institution. Decisions may be informed by the assessment by the ethics review body, as well as by additional advice required for the institution decision maker to make their determination [12].

## 14.7 Increasing Value and Reducing Waste in Research Governance

Whilst it is essential to ensure appropriate governance of research, it is also important to ensure that the processes and checks put in place, do not cause undue delay and costs directly for researchers, and indirectly for the public and philanthropic research funding agencies. There are anecdotal published examples where large amounts of research grants and time have been expended attempting to obtain approval for research studies in different jurisdictions [13].

A significant cause of added cost and time is where each organisation and jurisdiction reviewing a research proposal considers that it needs to review both the human research ethics aspects of the proposal and its governance.

Around the world attempts are being made to improve the efficiency of ethical review of multiple site research projects. Unfortunately even when there is good intent, the delivery of changes which streamline the system is fraught with roadblocks. An example can be found within the Australian context.

The National Health and Medical Research Council in Australia has developed a simplified ethical review process, which includes national certification of Human Research Ethics Committees after independent assessment of their processes.

Unfortunately, within Australia, there have been multiple systems of independent review for multicentre clinical research trials developed, based largely on State jurisdictions. Even with attempts at harmonisation, there remain local blockages to cross jurisdictional acceptance of ethical approval—even when based on a single national code as exists within Australia.

*Increasing value and reducing waste in biomedical research regulation and management* should be the goal to improve the outcomes for all concerned and ultimately for our patients and the community. This was the title of a recent review in Lancet, where the authors highlighted the lack of research into avoidable waste in this area [13]. They identified recommendations in four areas ranging from encouraging those responsible for regulation to set standards of research regulation which minimise inefficiency, streamlining and harmonisation of governance processes, improving efficiency of research practice processes, to integration of research into everyday clinical practice. They also called for regulators and researchers to take on the responsibility for monitoring and publishing metrics in this domain [13].

Research governance must be a living and responsive system, which can adapt to new information and concepts if it is to ensure that the rights and effects on each of the participants in research, and particularly the participant patients, are protected and managed to ensure the best outcomes for all concerned.

## 14.8 Ready Reckoner

- Research governance refers to the processes used by institutions to ensure that they are accountable for the research conducted under their auspices. It includes the broad range of

regulations, principles and standards of good practice that exist to achieve, and continuously improve, research quality.
- Research governance must ensure that at all times the rights of participant patients are paramount.
- Medical administrators need to be part of their institution's research governance, and have a full understanding of all components, as well as having an oversight that includes performance reports.
- Researchers should receive training in Good Clinical Practice or similar guidelines.
- To ensure that confidence by all stakeholders in research occurs, the research governance processes should be transparent and publically available. The roles and responsibilities of all involved should be clearly identified. Systems for monitoring and reporting of fraud and deceit in medical research must be in place.

## 14.9 Reflections

Robust and transparent research governance systems are an essential component of contemporary healthcare organisations. Medical Administrators must be involved and develop roles which inform and assure them that the rights of all participants are protected and managed appropriately.

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# 15 Health Information Technology and Its Evolution in Australian Hospitals

Nic Woods and Monica Trujillo

**Learning Objectives**
By the end of this chapter, the learner should be able to:

- Understand basic health information technology definitions and context.
- Understand an approach to developing the project vision and engaging key stakeholders.
- Develop a high-level framework for medical workforce engagement in the planning stages of an EMR implementation through to vendor selection.
- Understand key elements of the vendor selection and procurement process where medical workforce input is required.
- Understanding the importance of benefits and outcomes through the project.
- Understand the phases of an EMR project, key challenges and some lessons learned.
- Establishing clinical governance frameworks and medical workgroups to support the project.
- Appreciate new and emerging information technologies and how they are being applied in healthcare.

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## 15.1 Introduction

Although many digital information systems exist in healthcare, implementation of an EMR is one of the most significant transformation programs that a hospital health system will undertake, hence a key focus of this chapter. A majority of Australian hospitals today still rely on a mix of digital and paper-based processes. Considerable progress has been made with the implementation of EMRs in hospitals with a number of exemplars achieving international benchmarks of digital capability. This discussion is based on the premise that many healthcare organisations are and will continue to proceed down the path of investing in a substantial enterprise EMR footprint in the foreseeable future. Many of the principles and approaches described are equally applicable to implementation of departmental clinical systems, such as Intensive Care Unit (ICU) and operating theatre management systems. It is recognised that there are many other health information technologies that are important in a hospital and healthcare services such as productivity and collaboration solutions, diagnostic solutions, unified communications, patient engagement platforms, and business intelligence, the coverage of which would take much more than a chapter in a book. The content is designed to arm a medical administrator that has had little experience in health information technology with key concepts for planning and implementing an



E. Loh et al. (eds.), *Textbook of Medical Administration and Leadership*,
https://doi.org/10.1007/978-981-10-5454-9_15

EMR in their organisation. This is supplemented with a case study of St Stephen's Hospital Hervey Bay (St Stephen's) and how Uniting Care Health went about engaging its medical stakeholders and subsequently recognised as Australia's first fully integrated digital hospital.

The last section is a look forward at emerging health information and related technologies to provide perspectives on how these are being leveraged, their potential to impact the way we deliver healthcare and generate thought about preparing the healthcare and technology workforce to take advantage of these to support the delivery of healthcare into the future.

## 15.2 A Brief Walk Through the Archives of Health Information Technology

In 1971, Dr. Lawrence Weed began to promote the concept of a structured problem-oriented medical record. Around the same time, computational sciences matured in parallel with a renaissance of health information standard development. These have all been necessary foundational elements in pioneering health information systems and have enabled the beginnings of interoperability of clinical information between different EMRs that we have in use today. Two of the most important of these standard initiatives are HL7 and SNOMED. In essence, HL7 group create and curate standards to support interoperability between health information systems whereas SNOMED CT is a clinical terminology that supports the electronic exchange of health data (Table 15.1).

Some of the first commercial health information system vendors were founded in the United States of America (USA) in the late 1970s and leveraged these new standards in their early offerings.

### 15.2.1 Definitions

E-health is a relatively recent term, entering into the health information technology lexicon in the late 1990s [1] along with other more mainstream "e-" neologisms such as email and e-commerce, reflecting the emergence and disruption enabled by the internet. Despite lacking a standard definition, it would be fair to say "e-health" is taken by many to mean healthcare practice supported by electronic processes and communication [2]. Therefore, the scope of what is encompassed by it is broad—EMRs, mobile health, or mHealth which leverages mobile phones, consumer/patient engagement tools and wearables,

**Table 15.1** Examples of health informatics standards developed in the 1970s and still in use today

| Standard/ Organisation | Description | Founder |
|---|---|---|
| HL7 | HL7 (Health Level 7) is a standards organisation and name given to a number of communication standards between clinical system | Dr Donald Simborg, the University of California at San Francisco in the 1970s co-founded HL7 |
| | HL7 2.X messaging standards remain the current mainstay of health information messaging interoperability (e.g. between a 3rd party pathology system to an EMR for electronic diagnostic requests and results) | |
| | HL7 Clinical Document Architecture (CDA) is a way of exchanging clinical documents between different EMRs | |
| | HL7's FHIR (Fast Healthcare Interoperability Resources) is the most recent standard to provide a framework of interoperability using standard application programming interfaces (APIs) | Grahame Grieve is the creator and Product Director of FHIR for HL7. Originally from New Zealand, he now lives in Melbourne |
| SNOMED CT | SNOMED CT (Systematised Nomenclature of Medicine—Clinical Terms) is the most widely used clinical terminology | Dr. Roger Cote led the development of SNOMED in the mid-1970s |
| | SNOMED CT has been adapted to different countries, and in Australia, it is labelled as SNOMED CT-AU. It is the preferred clinical terminology in Australia | |

telehealth and personalised health to name a few. Digital health, a synonymous term with e-Health, is also being used increasingly in the health information technology vernacular.

The terms EMR and EHR are often used interchangeably, and refer to an electronic record of care. However, EMR has been in existence longer and has traditionally been used to encompass an electronic record of care within the four walls of a healthcare delivery organisation. EHR implies a longitudinal record of care that aggregates patient care information across multiple organisations, a good example being the national My Health Record initiative in Australia.

## 15.3 Where Are We Today?

One may think that the discovery of a medical record on papyrus over 4000 years ago would place healthcare well ahead of the curve in adopting digital technology. However, compared to other industries, digitisation of healthcare has been relatively slow, due to a range of challenges. Healthcare is by its nature very complex; overlay this with a complex regulatory environment, relative underinvestment in health information technology and robust, implementable health technology standards being developed relatively late, it is understandable why progress has been slow.

There are some exceptions, one of the most notable being the adoption of practice management systems in General Practice. As early as 2006, a large survey of General Practitioners (GP) in Australia found that more than 90% used an electronic health record [3]. They reported that electronic prescribing alone had contributed to improved efficiency, quality of care, and reduced medication errors. In hospital environments, clinical information systems and EMR implementations are progressing in many parts of Australia, and funding for this is being increasingly viewed as a strategic investment. Clinician attitudes have evolved, being driven in part by the place of technology in our daily lives, and an increasing confidence in clinical information systems and EMRs adding value to the jobs they and their health services do.

Related digital health technologies continue to improve apace, with the ability to stream and analyse data from medical devices, such as bedside monitors. Smart pumps and automated dispensing cabinets can be connected to EMRs to enable closed-loop medication processes. As the amount of clinical data dramatically increases, other technologies such as cloud services are increasingly being leveraged. These platforms offer scalable and high performing computers that can help with aggregating data from multiple sources, handle complex analytics such as developing risk models for unplanned readmission risk and early warning of clinical deterioration as well as the ability to connect this information back to clinical systems and mobile applications.

More hospitals globally are becoming digital and have wanted to benchmark their EMR maturity. HIMSS is the Healthcare Information and Management Systems Society—a not-for-profit organisation focused on optimising better health through the use of information technology. The benchmark model they have developed is "EMRAM" (Electronic Medical Record Adoption Model), which has become the industry default. The EMRAM model is divided into eight stages (0–7) with stage 7 being the most mature and indicating a full EMR, with standards-based interoperability and data warehousing as detailed in Fig. 15.1 below. Note that different geographic regions have slightly different EMRAM models.

Although the model does not necessarily correlate to a set of clinical or operational capabilities that are easily understood by clinical and operational audiences, it does offer an opportunity to compare progress in health information technology maturity within Australian hospitals and to be able to benchmark this with other countries.

Around 75% of the 271 Australian hospitals surveyed and reported in 2015 were at HIMSS stage 2 [4]. Since late 2014, three Australian hospitals have achieved HIMSS EMRAM stage 6, namely St Stephens Hervey Bay and Princess Alexandra Hospital, Queensland and the Royal Children's Hospital, Victoria. The US Government's Meaningful Use initiative, through financial incentives and more recently penalties for the implementation of certified EMRs, has been the main impetus of EMR implementations

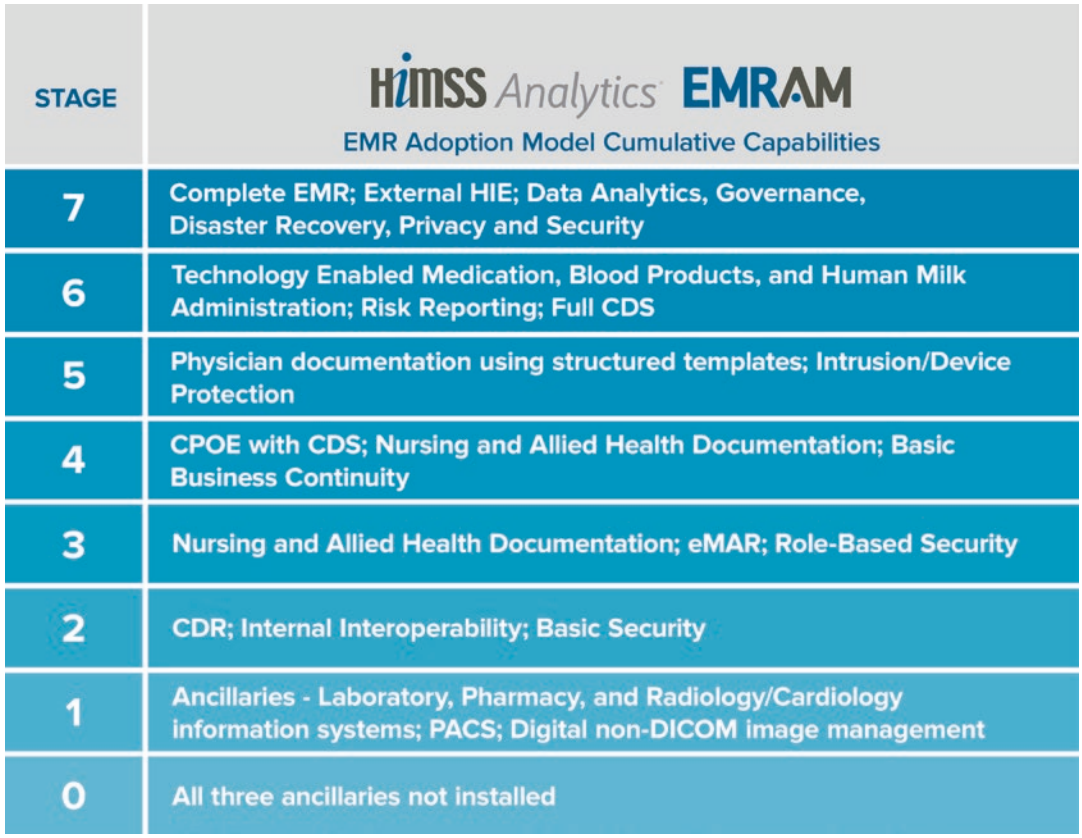


**Fig. 15.1** HIMSS Analytics' EMRAM. (From HIMSS Analytics Asia Pacific. HIMSS Analytics® Database ©2012. www.himssanalytics.org/asia-pacific/home with permission)

across the country; as a result of this, 38.8% of 5480 US hospitals surveyed in 2017 had achieved HIMSS EMRAM Stage 6 or 7.

## 15.4 Drivers for Health Information Technology-Enabled Change

It is worth beginning this section with a few historical anecdotes to understand how the pace of intergenerational technology change is accelerating and how health information technology has evolved within this context.

It was 1973 when Motorola demonstrated the first commercially available mobile phone, with 30-min talk time and weighing in at 1.1 kg. The subsequent arrival of digital cellular networks in the 1990s captured the mass consumer market globally with over 6 billion active mobile phones in service in 2014 and a projected 2.3 billion active smartphones in 2017. Tim Berners-Lee proposed a networked information system using hypertext pointers to locations across an internet in 1989, which later became what we now know as the World Wide Web. It was as relatively recent as April 2010 when the first tablet, the iPad, was released by Apple for pre-order purchase, for which there was rampant adoption by the medical community.

These enabling and ubiquitous technologies with ever-increasing power, speed, connectivity and convenient physical form factors have changed many aspects of the way we conduct our everyday lives, and have opened the door with new possibilities in how we interact with ser-

vices. The rapid adoption of disruptive technologies continues and shows no sign of slowing. The recent proliferation of health and medical wearable devices, the looming emergence of 5th generation wireless broadband (5G) mobile connectivity enabling potential speeds of more than 100 Mbps in metropolitan areas, will further shape our interactions, consumption and use of health data into the future.

At the core of most health IT-enabled programs of change, whether it be at a national, regional or local health organisation level, is the drive to improve the quality and efficiency of care to patients and populations [5]. The Australian Safety and Quality Framework for Health Care [6] describes a vision for safe and high-quality care for all Australians. It specifies three core principles for safe and high-quality care. The first one is that it must be consumer centred, driven by information, and organised for safety. The tenants of the Quadruple Aim, which overlays the importance of care for providers on top of the Triple Aim, can all be positively impacted by the use of information technologies.

There is an accumulating corpus of literature on outcomes enabled by implementations of health information technology including EMR. A recent paper from the Australian Healthcare and Hospitals Association assesses much of the recent literature on outcomes resulting from many types of health IT initiatives [7]. As most would agree, there is still work to be done in evaluating outcomes. It is, however, a complex analysis given the diversity of technology, scope and health services undergoing an implementation program. It is also a focus that is often de-prioritised as so much of an organisation's energy goes into "going live" rather than the impact analysis after. One of the most active researchers in this space in Australia is Professor Johanna Westbrook, from the Centre for Health Systems and Safety Research, Macquarie University, Sydney. Professor Westbrook's Centre researches the impacts of digital health technology on health service delivery. The Centre has looked at electronic medication management system related outcomes such as reduction in medication errors, cost-effectiveness, and the impacts on clinician time and patient flow using electronic laboratory orders and results to name a few.

Outside academia, a number of healthcare organisations have also measured and publicised outcomes relating to health IT implementations, some of which have been recognised with state and national awards.

Developments such as these are key in highlighting areas of impact and support the case for subsequent health IT investment. There are numerous digital health and related events in the Australian calendar which are a fantastic source for health service and industry presentations on real-world outcomes achieved. A few examples of Australian healthcare organisation outcomes are provided below.

## 15.4.1 EMR-Enabled Outcome Examples in Australia

### 15.4.1.1 Academic Research

1. Medication prescribing errors were reduced from 6.25 to 2.12/admission ($p < 0.0001$) in a New South Wales metropolitan hospital following the implementation of an e-prescribing system. Serious errors decreased by 44% ($p = 0.0002$) [8]
2. Implementation of an electronic medication management system in an NSW hospital cardiology ward was associated with an annual reduction of around 80 adverse drug events and related savings of $97,740–$102,000 savings over the year. Extrapolated over the hospital with 39,000 annual admissions, this would equate to savings of $2.5 million/year in health costs [9].
3. A big bang implementation of an integrated EMR at Australia's first digital tertiary hospital, the Princess Alexandra Hospital, Queensland which has over 6500 staff, at the end of 2015 noted an initial drop in ED productivity by 25% that returned to pre-implementation by 6 months [10].

#### 15.4.1.2 Health Service Published Outcomes

1. Austin Health and Peninsula Health implemented EMRs with diagnostic orders and results, medication management, and electronic discharge summaries. They were the winning recipients of the Clinical Excellence and Patient Safety award from The Australian Council on Healthcare Standards in 2013, for their work on showing:
   - A reduction in medication error of 55% across their subacute areas.
   - Better allergy compliance—99.9% completion of allergy status (93.2% within 24 h) and 99.9% accuracy of allergy status compared with 95% completion and 68% accuracy pre-implementation.
   - Timely discharge summaries to GPs—overall electronic discharge summary compliance increased from a median of 68% to 83% completed within 48 h from 2011 to 2013 [11].
2. Liverpool Hospital, Sydney, improved compliance of surveillance for pressure injury with Waterlow documentation and consolidated electronic ordering of pressure surfaces, resulting in reduced hospital acquired point prevalence for pressure injury from 13% to 9% in 12 months (2009–2010), with a further reduction to 8% a year later. Also reduced severity of pressure ulcer grades, 73% superficial ulceration in 2009 compared to 97% superficial ulceration in 2010 (i.e. non-superficial tissue ulceration reduced from 27% to 3%) [12].

For clinicians and others delivering healthcare in frontline services, there are many who now view an EMR as a strategic priority providing timely access to clinical information across a plethora of traditionally disparate and incomplete systems. These digital foundations are critical if we are ever to achieve a comprehensive and harmonised view of the patient across the care continuum as well as population health data to further clinical research and support clinical service delivery.

Clinicians who have gone through their clinical training and junior years using an EMR are placing increasing value on having an EMR as a core tool. Making the transition back to organisations that have limited health IT systems can be challenging as many manual processes are no longer imprinted in their memories, such as the ability to write a physical inpatient medication chart if a clinician has used electronic medication entry with drug interaction clinical decision support, for example.

## 15.5 Challenges for Health Information Technology-Enabled Change

Healthcare environments are incredibly complex. Layering technology over the top of this complexity in itself will not fix divergent and poor processes. EMR implementations are challenging endeavours due to the breadth and depth of impact on many different stakeholders. The technology and functionality required to meet these demands across the entire hospital system are accordingly complex and one of the reasons why the hospital vendor market has globally consolidated to a smaller number of players.

Globally, investment in IT in healthcare has been low compared to other industries with IT spend per employee being the 3rd lowest of all industries surveyed in a 2012 Gartner IT Key Metrics Data Summary Report [13]. This has changed recently in the USA at least, driven by the Meaningful Use program.

End users experience and expectations of an EMR's interface, and assessment of its simplicity and mobility have been shaped by the interactions they have with everyday technology such as smartphones. Naturally, this is a challenging comparison given an EMR is an enterprise application handling huge complexity and diversity of processes across a health system. While most EMR and clinical software vendors recognise this and are progressing improvements in user interfaces, there is still some way to go to meet these expectations.

In Australia, the fiscal demands on our health services and tremendous recent investment in new hospitals have created a challenging environment for health services to make the case for investment in digital health technology amongst competing priorities. Some states have committed to strategic long-term eHealth programs, whereas others have made more piecemeal investments, often driven by funding constraints, priorities and the desire to prove success and value before rolling out tested solutions. Although there is an increasing number of proof points of successful outcomes in Australia as discussed previously, comprehensive analyses demonstrating a clear Return On Investments (ROI) is a challenging endeavour given the complexity and heterogeneity of an EMR implementation. The front and centre objective of implementing an EMR should be to improve quality, safety and efficiencies of healthcare delivery, with secondary value in financial gains where these are able to be reliably measured. Where cost savings to an organisation and health system are demonstrable, this can drive further investment in other health IT-enabled change projects.

A major detractor in Australia at times has been a very public critique of the previous state and federal health IT programs. Many of these have tended to focus on the weaknesses, challenges, or incomplete delivery of the programs being critiqued, and often a disproportionate lack of focus on program successes.

## 15.6 The EMR Journey: Preparation

During the interval between the green light to procure an EMR to selection and contracting with vendors, there is a golden opportunity for an organisation to establish vital program building blocks that positions the program well for success. It is also very necessary to consider other change programs that might be occurring across the organisation around the same time. These may include other health information technology system implementations, upgrades, non-IT related transformation programs, or even new capital works programs. These may need to be coordinated at an organisation program level to ensure interdependencies, risks and the overall level and tolerance of change are well understood.

Given the complex nature of EMR implementations, risk needs to be carefully managed along the entire journey. Failures of EMR programs are both well documented and well publicised. "Learn from those that have gone before us" should be one of the doctrines emblazoned on the project room door. Incorporating lessons learned from local, national and international experience will go a long way to help mitigate these risks. Key critical success factors of EMR implementation programs are provided below and while by no means exhaustive, many can be mitigated well before a contract with an EMR vendor is signed.

- Strong and committed senior executive support with the CEO being a champion or sponsor of the program.
- Clinical engagement and ownership of any clinical system implementation—a targeted medical engagement and governance strategy needs to be specifically designed and resourced (including back-fill of staff where needed).
- A clear, concise, and well-articulated vision that has meaning and can be communicated across the organisation.
- Clear goals of the program that are potent and resonate with staff across the organisation strong medical and clinical leadership and governance throughout the course of the program.

### 15.6.1 The Call for Change, Creating a Vision and a Strategic Approach

John P Kotter's book Leading Change describes a series of eight steps to effect change. The first three encapsulate the need to create a sense of urgency, assemble the right team to drive that change and achieve consensus on the vision. In healthcare organisations in Australia, it has

typically been a senior member of the executive team or a particularly motivated clinician or group of clinicians, which start those intrepid early discussions as to why the organisation should embark on an EMR implementation journey. For publicly funded health delivery organisations, this may be triggered by an opportunity to secure available funds, or to implement clinical systems as part of a statewide implementation program. eHealth New South Wales and Queensland Health are examples of such initiatives.

Being clear on the vision for implementing an EMR is essential in the early days of a project, to align those championing its cause, and to develop a strategic approach to the program as it evolves. The vision should be more than a marketing sound bite. It needs to be honest, concise, believable and achievable, and perhaps most importantly, able to address the health IT mantra of "what is the problem we are trying to solve?" Making a vision patient centred will no doubt resonate across the organisation and should be established as a principle through the project. Having senior executives (including the Chief Executive Officer) and key stakeholders contribute to the vision from the start drives sponsorship and endorsement of the importance of the program to succeed.

Facilitated sessions of stakeholders from across the organisation help in determining the goals that support the vision. It is worthwhile establishing an early stakeholder engagement exercise. Meeting with representatives from the executive and impacted clinical services, ensuring there is balanced representation from medical, nursing, allied health, administrative, operational will help the project team to really understand:

- Challenges with current information systems.
- Competing priorities or projects of their clinical service.
- Priorities and expectations of a future clinical information system at go-live, in 3 years, in 5 years.
- Improvement opportunities post-imple mentation, such as service quality, safety, cost reduction, and efficiency.
- The goals of the EMR program must be evaluated against the organisations own planning and strategic goals and aligned where able.

### 15.6.2 Establishing Critical Roles: The CMIO or CCIO

The rollout of digital health and EMR projects requires a substantial investment. Strong leadership is needed from the executive and strong clinical leads are critical to delivering success. New posts such as Chief Medical Information Officers (CMIO), Chief Clinical Information Officers (CCIO), and Chief Nursing Information Officers (CNIO) have emerged. One of the core responsibilities is to design and deliver clinical engagement and governance, both of which are fundamental to the success of these programs. This section focuses on medical leadership positions, acknowledging the vital role that is played by other professional group colleagues. Success relies on a leader that is respected by peers, comfortable with change, tenacious and a conviction in health information technology being an agent to positively impact care delivery. The skill mix for a CMIO is a unique one. They require knowledge of the contemporary healthcare environment, demonstrated ability to effect change, knowledge of current and emerging healthcare information technology drivers and capabilities.

The CMIO has the unique role of being a translator between the clinical world and the IT world—two worlds with different languages and cultures, while also representing the needs, and objectives of the organisation. A program of this size is clearly a team sport and one of the key functions of the role is to empower colleagues in designing key elements of the system (defining new workflows, configuration of clinical content, etc.) and ensuring appropriate accountability along the way.

In a 2006 research paper written by Leviss et al. studying the role of the CMIO in the USA, Leviss

reports that "*individuals indicate that executive leadership skills are more valuable to a CMIO than formally trained informatics expertise—for all but one CMIO, leadership experience and training strongly outweighed formal informatics training*" [14]. Adding further that "*The CMIOs surveyed have leveraged their leadership and informatics expertise to effect broad health system change and to accomplish health system goals, rather than relying solely on technical backgrounds to build information systems. Recruiting and empowering effective CMIOs will enable a health system to best meet the challenging tasks of technology-enabled transformation*". This should be no different in the current Australian environment where the complex task of leading healthcare transformation by eHealth requires an expert in healthcare change management versus an expert in information technology.

Governance and reporting lines vary across the world; the majority reporting to Chief Information Officers or Chief Medical Officers, fewer reporting to CEOs and Chief Operating Officers (COO). Success relies on the CMIO sitting at the Executive table and leading the development of the digital health strategy. The CMIO needs to work as part of a multidisciplinary team with a group of technical experts and clinical informatics experts and program management experts.

This group is a relatively new breed in Australia, with an increasing number of formal roles now in post within health organisations, States and Territories and nationally. The first CMIO appointed was in August 2012. Dr. Monica Trujillo is a FRACMA passionate about health improvement through IT and was an integral part of the project team for St Stephens Hervey Bay, Australia's first fully integrated digital hospital and the first to obtain HIMSS EMRAM level 6. These new roles are vital and should be supported beyond the implementations of an EMR. Post-implementation there will be ongoing medical expertise required to ensure systems are optimised, contribute to digital health strategies and ensure the clinical related goals of the project are met. It is often quoted that "an EMR is never done" and with the rise in modern technology, that is even truer today and lends more weight to the importance of clinicians persisting in these important roles.

### 15.6.3 Establishing Early Clinical Governance

The United Nations has a particularly concise and useful definition of governance as the process of decision-making and the process by which decisions are implemented. It is important to design an engagement and governance strategy early in project planning, even during procurement.

If there is already a clinical governance structure in place that has responsibility for clinical information system implementation, it makes sense to consider leaving this intact provided it has adequate representation, support and clear accountabilities in line with the EMR program.

If existing clinical governance arrangements are inadequate, new governance entities can be created. It is worth establishing a Clinical Advisory Group (CAG) focused on the EMR procurement, which represents the clinical community most affected by the project with medical, nursing and allied health professional representation and chaired by the CMIO or CCIO or another clinical sponsor.

The governance arrangements for the CAG must be clear as to the responsibilities, accountability, membership and escalation process if decisions are unable to be made by this group, as well as escalated decisions requiring resolution by this group.

The responsibilities of the CAG should include support and decision-making on scope, phasing, and opportunities for value and outcomes and benefits, as well as input and review of business cases. Participation of the CAG members in vendor selection is vital to engender a sense of ownership and buy-in from this key clinical stakeholder group. Consideration should be given to the Clinical Advisory Group evolving to form the nucleus of a Clinical Steering Committee when the project kicks off.

## 15.7 Determining Initial Scope and Phasing

Scoping a project is a challenging but important function for the project team responsible for the EMR journey. This is necessary in order to message across the organisation the types of capabilities the EMR project is likely to deliver and not deliver. It serves to clarify what is out of scope, what are the agreed priorities and it is an input into early planning such as indicative project costs and resourcing need estimates. Inputs into an initial scope for an organisation can be from:

- Organisational strategic priorities
- Organisation digital health strategies
- Discussion with other similar organisations that have implemented an EMR
- Priorities from the early stakeholder engagement exercise discussed above
- Dependencies on other legacy systems, such as a 3rd party pathology system and a patient administration system
- Indicative infrastructure requirements, for example, a wireless upgrade
- Indicative hardware requirements, for example, new PC workstations, mobile devices

At this stage, it should not be expected that the scope of a project will be completely locked down, given the procurement and contracting discussions that will follow with the selected vendors. Outputs from the above can be considered against a capability framework, a sample of which is provided in Table 15.2.

There will also be a host of technical requirements such as hosting, cybersecurity, and identity management, implementation requirements such as project methodologies and training, and service requirements for support post-implementation. Although EMR programs in themselves are significant undertakings, there may well be other health IT and technology projects to consider:

- Bring Your Own Device (BYOD) policy
- Unified communications solutions and services
- Integration with legacy in-organisation systems, state systems, and national systems

In addition to scope, a view on the phasing of the program of work should be formulated. The debate of a "big bang" approach versus a phased approach has not yet been resolved once and for all and probably never will. "Big bang" refers to a significant amount of a complete EMR implemented in one go live. A phased approach implements in tranches to particular clinical services, for example, an Emergency Department or perioperative service, or phases core EMR functions such as diagnostic orders and result reporting first, medication management second and full clinical documentation last. What is clear is that whether it is a big bang or phased approach, the best approach will be the one that best fits the organisational needs at the time. Big bang approaches have been used across large and complex healthcare organisations in the USA. For example, Banner Healthcare, a not-for-profit 28 hospital system across 7 states, with 39,000 employees, and now HIMSS stage 7, initially implemented an EMR in one facility and then rolled it out to the remaining 27 over 4–5 years.

Historically, phased approaches have been used in Australia, often due to the level of program funding and therefore resource constraints with the separate phases. However, the big bang implementations at the three hospitals that have obtained HIMSS stage 6 (Royal Children's, Princess Alexandra and St Stephen's Hervey Bay) have all had very successful go-lives.

Making a concrete recommendation on which approach to take must take into consideration numerous variables. Advice can and should be sought from other health services who have implemented an EMR. Potential vendor partners are great sources of information and can offer recommendations on resourcing, interdependencies with different EMR capabilities and how to phase different clinical services during the go live. Table 15.3 lists some of the key pros and cons of each approach.

### 15.7.1 Preparing a Successful Business Case

Key ingredients of a robust business case are value and outcomes, or benefits expected as a result of the implementation. Examples of

**Table 15.2** Electronic Medical Record high-level capability framework example

| EMR/clinical system | |
|---|---|
| *Capability group* | *Function/process requiring support* |
| Core clinical capabilities - Patient lists | Patient lists, e.g. ward lists, custom lists<br>Clinical dashboards/journeys |
| Core clinical capabilities—EMR | Documentation<br>• Assessments and structured documentation<br>• Patient observations<br>• Narrative in-care setting notes (e.g. admission, progress)<br>• Continuity of care (transfer, discharge letters)<br>Orders<br>• Diagnostic (laboratory, imaging, other), nursing and patient care<br>• Order sets and care plans<br>Results<br>• Results access and display<br>• Results acknowledgement Medication management<br>• Allergies and adverse drug events<br>• Prescribing, verifying and administering Clinical decision support rules |
| Core clinical process | Managing and storing patient consents Supporting clinical handover<br>Blood product management<br>Managing internal consults/referrals |
| Clinical service-specific capabilities (additional or specific capabilities not covered in core) | ED (e.g. ED tracking board, pre-arrival)<br>Perioperative (e.g. theatres tracking board, anaesthesia documentation)<br>ICU (e.g. electronic observation chart, bedside monitor interfaces)<br>Women's Health (e.g. integrated CTG)<br>Paediatrics (e.g. paediatric medication order sentences)<br>NICU (e.g. bilirubin nomogram)<br>Cardiology (e.g. integrated ECGs, cath lab documentation)<br>Renal (e.g. dialysis machine integration, CKD management)<br>Oncology (oncology trials, oncology protocols) etc. |
| Other | |
| *Capability group* | *Function/process requiring support* |
| Clinical trials and research | Trial enrolment and management |
| Reporting and analytics | Real-time dashboards<br>Operational reporting (standards reports)<br>Enterprise reporting (ad hoc, etc.) |
| Core administrative services | Master patient index<br>Referral and waitlist management<br>Enterprise scheduling |
| Patient engagement | Patient portal<br>Patient education and wellness<br>Virtual health |
| Medical device integration | Anaesthetic machines<br>Bedside and portable monitors<br>Automated dispensing cabinets, syringe drivers, IV pumps<br>Dialysis machines, etc. |

EMR outcomes from health services in Australia and abroad, some of which are described previously in this chapter, can be used to model target outcome as part of the EMR program. Some vendors and many advisory companies will offer support with providing evidence and supporting documentation for this. Outcomes can be summarised and grouped under headings such as:

- Bankable Savings, for example, a reduction in scanning and stationery costs
- Quality and safety, for example, a reduction in pressure injury, reduction in sepsis mortality
- Efficiency, for example, the number of bed days saved from decreased Length of Stay (LOS)

Outcome targets can be used to tailor communication messages to the various stakeholder

**Table 15.3** Considerations of big bang versus phased approach to implementation

| Approach | Advantages | Disadvantages |
|---|---|---|
| Big bang | Speed to value | Increased resource requirements initially |
| | Compressed timelines (for comparable capabilities) | Increased training requirements |
| | Resource efficiencies (e.g. training mostly in one hit, no recurrent implementation project teams) | Greater level of change at once and potential for greater productivity loss initially |
| | Workflow more streamlined (e.g. no need to manage transitions between EMR-enabled clinical services vs. paper-based ones as all electronic) | Greater testing effort required at once |
| Phased | Greater tolerance of smaller projects | Delay in realising value and outcomes from implementation |
| | Less testing effort and more capacity to address testing issues | Change fatigue from end users |
| | | Process fragmentation due to incomplete workflows |
| | | Potentially more expensive over the long term (e.g. recurrent project costs) |

audiences, such as clinical, financial, and executive. Each target should be appropriately assigned to a key sponsor. Progress against these targets during the EMR project and after go-live is important to ensure the success is measurable.

### 15.7.2 Procurement Approaches

The procurement processes for healthcare information technology vary significantly across different organisations in line with policy. Government organisations need to follow the procurement policy while other organisations will have a local policy. The formal process that public organisations generally use is a Request for Tender (RFT) or Proposal (RFP) process which is sometimes preceded by an Expression of Interest (EOI) or Request for Information (RFI). The intent of the EOI or RFI process is to canvass vendor interest, horizon scan and to inform a subsequent RFT or RFP process.

For health services that wish to evaluate the impacts, opportunities and risks of a project more fully before they commit to proceeding, an Implementation Planning Study (IPS) is increasingly being used for business assurance. This is usually done by the organisation or by the preferred vendor. This process itself can be costly both financially and in time, however.

EMR implementations are inherently complex. Consequently, RFT/RFP and EOI documents are usually complex. There are significant challenges in the process, namely the duration, effort and cost for all parties involved. Many RFT or RFP include hundreds to thousands of functional and technical requirements, the value of which must be considered versus the effort and reliability of the requirements. Considerations of a requirements heavy tender process are provided below.

- The requirements themselves are often subjective, may not reflect true end-user requirements and are open to interpretation. The vendor's interpretation and response may be completely different resulting in obvious potential consequences for both.
- There will always be temptation for vendors to inflate compliance against the requirements in order to get through to the next round.
- It becomes a very onerous process to evaluate the raft of multiple vendor responses for the health organisation.
- Elaborate requirement-based documents tend to have minimal value during the implementation phase.

Organisations should look to leverage and share tender development work done by similar organisations and for similar programs. Alternative and agiler contracting approaches should also be considered. Issuing an EOI followed by a detailed engagement with a select number of vendors through a closed process helps managing responses from the entire market. Vendor selection will usually follow multiple steps in this process, for example:

- Vendor response to tender schedules describing functional requirements and system infrastructure
- Health service evaluation of vendor responses and other required evaluations, such as reference site calls to other health services that have implemented the vendor's solutions
- Short listing of Vendors for demonstration and evaluation
- Demonstration and tender clarification rounds
- Pricing and best and final offers
- Final selection of Vendor
- Board endorsement or approval of Vendor
- Contracting
- Board endorsement or final approval of program

### 15.7.3 Vendor Evaluation and Selection

The analogy of a marriage between the EMR provider and the health service has been used by many that work in the industry. This metaphor embraces the concept of partnership which is at the core of successful EMR projects. Partnership implies a way of working together, problem-solving and jointly celebrating success. Formalised partnership models can include risk sharing of the benefits and outcomes realisation, implementation collaboration models, for example, where vendor staff are co-located within the health services or vice versa, and sharing of intellectual property for new software innovation, or content development agreed as part of the program.

An evaluation framework needs to be established in readiness for the tendering process. There are multiple dimensions against which vendors need to be assessed and a sample of these are provided in Table 15.4.

Evaluation of the vendor clinical solution capabilities needs to be led primarily by clinicians, given the obvious clinical impact of an EMR, and to ensure a sense of ownership when the project kicks off. Any visits to reference sites, attendance at demonstrations and other related activities must have appropriate levels of clinical involvement to ensure clinicians buy-in and to leverage their expertise in the vendor selection.

**Table 15.4** Vendor evaluation framework

| Evaluation topic | Evaluation details |
|---|---|
| References | Evaluation of local and international reference sites provided by the vendor (for similar health services, exemplars of the solutions being scoped) |
| Implementation capability | Evaluation of implementations to local and international health services: |
| | • For similar health services |
| | • For similar solution scope |
| | Evaluation of vendor client health services on a particular HIMSS level |
| Solution capability | Evaluation of functional responses, demonstration, solution gallery |
| Technical capability | Evaluation of technical responses (e.g. technical architecture, system reliability, hosting models, interface capabilities, device integration) |
| Local capability | Evaluation of company presence (duration, office locations, EFTs, etc.), details of implementations (with utilisation) |
| Product strategy and innovation | Evaluation of product development (e.g. strategic roadmaps, industry partnerships), research and development (R&D budgets, first to market innovations), industry awards |
| Implementation approach | Evaluation of implementation methodology (e.g. project management framework, project tools, risk management, training, go-live support) |
| Support models | Evaluation of the options for support post implementation of the solution (e.g. help desk, application managed services) |
| Pricing | Evaluation of pricing with clear guidance on inclusions and exclusions |

### 15.7.4 Best of Breed Versus Integrated Solution Considerations

Often a clinical service will push for a particular best of breed system for their service. This approach is understandable as these systems are tailored for that particular clinical service and do not carry the costs and complexity of an integrated EMR program. There are some very important considerations to make in this approach, some examples of which are listed in Table 15.5.

**Table 15.5** Integrated vs. best of breed solutions considerations

| Area | An integrated solution |
|---|---|
| Usability | May not always be as finely tuned to the needs of a particular clinical service as some best of breed systems |
| Workflow | Is much more likely to support workflows across clinical services due to patient-centred record (rather than clinical service centred record) so information will flow across clinical services. This is particularly true when electronic medications management (EMM) are implemented. For example, managing medication allergies in multiple systems is challenging and risky, as is managing patient transitions between parts of the hospital that are using EMM and those that are not. |
| Documentation | Can re-use data held at the patient level so the need to double document between different clinical services is reduced |
| Clinical decision support | Provides a more cohesive strategy to rules-based clinical decision support with one rules engine running on the same data |
| Reporting and analytics | Is much less likely to require data extraction from multiple sources |
| Interfaces | Requires significantly fewer interfaces (which are costly to develop and maintain) |
| Support | Potential for more efficient support model (e.g. tools, code sets are common across the platform |
| Development | Maybe less responsive to product change requests. Best of breed suppliers are smaller, less complex and may be in a better position to turn changes around faster |

### 15.7.5 Vendor Contracting

Once the decision to proceed with a particular vendor is given, contracting processes will begin, involving legal counsel and contract. There are a number of law firms that have built up considerable expertise in this area. Contracting is often viewed by the respective parties as a combative process with each party naturally seeking the optimal contractual outcome for themselves. This can lead to adversarial approaches that reduce the opportunity to partner.

A far more effective contacting process starts with the premise that in order for the project to succeed, both parties must support each other's mutual success as much as their own. Only when this occurs does a truly aligned approach and aligned success prevail. If the contract can capture the nature of a true partnership and the term is not just a platitude, the opportunities for mutual success dramatically increase.

## 15.8 The EMR Journey: Before Go-Live

The interval between contract completion and go-live encompasses the major share of the work. The duration of this phase is based on many variables such as scope and resourcing, but most healthcare organisations will allow between 12 months and 24 months to design, build, test and go live with the system. Some of the critical success factors during this phase are:

- Clinical ownership of any clinical system implementation
- A thorough and well thought out implementation plan
- Realistic and communicated limitations on scope and priorities
- Strong stakeholder and communications strategies
- Robust clinical governance
- Strong program management expertise
- Sufficient numbers of skilled resources including backfill for organisational subject matter experts (SME)

The importance of communication to all of those impacted by the project cannot be understated and are key to creating awareness, interest and excitement. Some organisations invest significantly in their communications and have used creative strategies such as covering all the lift doors with content promoting the project.

### 15.8.1 Implementation Governance Considerations

Designing good governance for an organisation EMR project is a skill and there is no one size fits all. It is critical that this is as robust, inclusive and productive as possible.

The typical four interdependent components of governance related to an EMR project are:

- Executive Steering
- Project Steering
- Clinical Steering
- IT Steering

Clinical governance can be planned well ahead of the project commencing as discussed earlier in the chapter. The Clinical Steering Group (CSG) may in part or whole rollover from a Clinical Advisory Group (CAG) or its equivalent, established during the vendor selection phase. This will usually sit above a number of subcommittees and working groups and will be tasked with expediting escalated decisions. The composition of a typical EMR Clinical Steering Group is shown in Table 15.6.

**Table 15.6** Clinical Steering Group membership and responsibilities example

| Membership | Sample responsibilities |
|---|---|
| • CMIO/CCIO/CNIO<br>• Key medical, nursing, AHP, pharmacy stakeholders<br>• ICT representation<br>• Vendor representation<br>• Patient advocacy as required<br>• GP/Other health service representation as required | • Review or set organisational procedures and policies that need to be modified or introduced<br>• Escalation of design decisions with workflow or clinical impact<br>• Provision of clinical SMEs from across the organisation<br>• Endorsement of key clinical design decisions and processes<br>• Shared ownership of expected clinical related outcomes |

### 15.8.2 Establishing Clinical Workgroups

Adequate resourcing of clinical subject matter experts in work groups is essential if the project is to have a critical level of clinical engagement and decision-making. It also represents a significant challenge in medical workforce rostering, significant costs of backfill and may necessitate appointing supplementary staff. The vendor and other health services that have undergone implementation will be able to guide resourcing estimates through different phases of the project.

For larger projects involving multiple clinical services, it is important to address the following questions in ensuring balanced workgroup composition.

- Is there adequate representation from the clinical services impacted?
- Is there adequate representation from each of the facilities impacted if multiple facilities are involved?
- Is there enough focus on hospital-wide capabilities being implemented that have a significant impact on all clinical users, for example, medication management?

### 15.8.3 Chartering the Course of Design, Build and Test

The approach to information technology-enabled change is often broken into the well-known triad of "people, process, and technology". It is widely recognised that "people & process" are by far the more complex and challenging pieces of the triad. Understanding culture, people's requirements, expectations and keeping stakeholders motivated to implement change are critical to success. Understanding workflows and processes are also critical and support the delivery of:

- Current state workflows, for example, discharge to home from inpatient
- Clinical content, for example, care pathway or medical protocol content
- Design decisions, for example, escalation triggers for deteriorating patients

- Future state workflows, for example, electronic clinical handover
- Unit testing, for example, clinical user scenarios, queries from testing team
- Clinical champion development
- Clinical process improvement as part of the outcomes and value framework
- Training and go-live support, for example, of superusers that are more highly trained users of the system that can support inexperienced users at go live and beyond

So what tactics can be applied to get people involved and stay motivated in these long complex projects? The answers vary widely and often depend on the drivers of individuals. Some clinicians may be self-selecting with a natural bent towards health IT, or desire to have a key role in a large transformation program or seek an opportunity to develop new skills. Others may expect financial reimbursement for their time. It is important to evaluate these factors up front and plan for any additional activity or costs that might be incurred.

A project charter is a document that describes important high-level aspects of the project. It should be agreed and signed by all of the workgroup members to mark an understanding, agreement and commitment to the project. The type of information that would be included are:

- Purpose of the project
- Workgroup objective
- Decision-making processes such escalations or conflict resolution
- Guiding principles
- Membership
- Success measures of the workgroup

## 15.9 The EMR Journey: Go-Live

The effort invested during the system design, build and test phases culminates in final preparations for the go-live and then the go-live itself. Critical success factors for this phase are:

- Thorough testing of the system
- Robust conversion and cutover planning, which describe the project steps to bring the EMR into real use, such as converting a paper-based medication chart to an electronic one if medications management is being implemented
- Sufficient coverage and completeness of end-user training
- Training and preparation of superusers
- Adequate support for go live

One of the main go-live planning activities is the decision on how to go about go-live.

- Which clinical services or locations will "go live" first?
- How will subsequent clinical services, locations, workflows/functions phased into following go-lives?
- What day and time is best to go-live? For example, when is the activity lull in ED for an ED implementation?
- When can downtime be best tolerated if using an existing system?

The EMR training teams should have delivered the majority of their training by the time the EMR goes live. The timing of the training is very important and ideally should not be too far out from launch. If it is too far out, staff forget, if it is too recent it becomes challenging to deliver such copious amounts of training to a big workforce in a brief time. Training needs vary across professional groups and need to be tailored based on preferences and the level of impact of the systems being implemented. For medical staff, it is often challenging getting people along to formalised training, and this group often prefer online training rather than formal classroom training. Superuser "elbow to elbow" support over the time of go-live and the initial support period works very well, particularly if attendance and compliance are not great in any classroom-based programs.

EMR training and passing competency-based assessments are becoming a requirement at some healthcare organisations in Australia. In some case, being mandated before temporary staff can fill casual or locum shifts at EMR-enabled organisations.

The quality of superuser training is very important as is the superuser to other end-user

ratio. This ratio will depend on the level of scope, impact on the various clinical groups and how the go-live is phased. If the go-live conversion impacts multiple wards at once for example, a greater number of superusers is required than phasing 2–3 wards day by day.

On the day of go-live, it is very important to have clinical champions, clinical service leads and senior executives visibly involved and showing support for the project and to keep morale high. The go-live support team plays a vital role in getting the users over the line in the first 24–72 h. The level of support should be thoughtfully ramped down over the following weeks and months, allowing for the transition of staff teams and visiting medical staff working for the first time after the initial go-live.

## 15.10 The EMR Journey: Post Go-Live

It would be simple to think that once the go-live has occurred and the go-live support team has handed over to the business as a usual team that the job is complete. However, another health IT mantra is that an EMR is never really done.

There will be code upgrades, new technologies to evaluate and enable, new clinical services to deploy to and so on. But this should not detract from the need to get behind and celebrate the success of the project going live. These are not trivial projects and they involve a significant investment and commitment from all those involved. Celebrating success and public recognition of the staff's efforts is important to keep people motivated for the next rollout phase or project down the track.

### 15.10.1 Fostering an Ongoing Team

Expertise in health information technology is becoming a valuable commodity and there are recognised shortages of skilled resources in many areas. Pockets of expertise are accumulating, but the demand will only increase as hospitals and other health segments utilise more health information technology over the coming years.

There should be a good representation of clinical stakeholders within the government that supports the organisation's ongoing health IT strategy and delivery. The need for clinical leadership from the CMIO, CCIO or the CNIO has to be viewed as an ongoing committed role if care delivery and transformation supported by information technology are key to an organisation's operations.

As digital foundations are rolled out across the healthcare continuum, increasing value will be placed on a broader health IT team. Organisations will need access to a workforce with skills and knowledge in application development, data analytics computer science, and solution architecture (expertise that cobbles together the most appropriate applications and technology platform) in order to take advantage of emerging technologies such as advanced analytics and artificial intelligence.

### 15.10.2 Evaluating Success

As part of an outcomes and benefits framework, it is vital to ensure sufficient resourcing and project support to evaluate if the program's expected outcomes were realised. This is also an opportunity to identify gaps in cases where they have not. This effort is often left, due to cost and resource contention on other projects. It is however strongly encouraged for organisations to preserve this effort as the results can reinforce the success of the project and be a catalyst to learn for subsequent projects and serve as a valuable input into future business cases.

In general, most outcomes should be evaluated at around 6 months post go-live. By this time, users should be well versed in the system and teething issues should be resolved. Evaluation approaches depend on what is being measured. Some approaches are:

- System reports, for example, looking at drug interaction alert details
- Satisfaction surveys, for example, looking at patient or consumer and clinician satisfaction
- Observational analysis, for example, looking at clinician time and motion impacts

### 15.10.3 Optimisation of the EMR

Inevitably there will be changes and enhancements that will arise after go-live. Setting aside budget and resources for an optimisation phase (where suboptimal process, training and system configuration is reviewed) is strongly recommended so that necessary changes can be introduced into the live environment.

Many vendors will conduct a post-implementation review in collaboration with the healthcare organisation EMR team. These usually result in a series of post-implementation and optimisation recommendations such as configuration changes, new code upgrades, and implementing additional capabilities. It also serves as a valuable input into informing a strategic digital health roadmap, etc.

## 15.11 Case Study: Medical Leadership in Rollout of Australia's First Fully Integrated Digital Hospital

### 15.11.1 Background

In 2011, the Australian Federal Government, via the Hospital and Health Fund (HHF), granted UnitingCare Health (UCH) $47 million of a total of $96 million towards the cost of a brand-new hospital. This particular initiative was targeting the development of the first fully integrated digital hospital in Australia.

The new 96-bed hospital, St Stephen's Hospital (St Stephen's) in Hervey Bay, opened the 13th of October 2014. The hospital opened with a full suite of integrated eHealth tools. This included 29 clinical software applications, full device connectivity, 5 clinical interfaces, and 13 business interfaces. The vendor delivering the applications was Cerner Corporation, a large American healthcare software company.

As a key starting point for the project, UnitingCare Health's Executive Director, with vision and a strong commitment to the delivery of a fully integrated digital hospital, took himself to study digital hospitals that were successful and not successful in their implementation. The key lessons he brought back to Australia were the catalysts for the recruitment of an experienced eHealth Program Director and the appointment of Australia's first CMIO. The combination of a highly committed leader, an experienced program director and engaged medical leadership set the scene to the start of a successful project.

The large clinical transformational change in this project was achieved through the creation and integration of Work Redesign Teams (WRTs). A total of eight WRTs were created, three of them medical teams which will be discussed further (Fig. 15.2).

Each team worked independently, however, in close synch with each other during seven intense months. Items that were considered to have an effect on the other teams were sent for discussion and decision by the other WRTs.

### 15.11.2 Project Clinical Governance

A robust clinical governance process was established with the use of the well-established governance groups already in place. The UCH Clinical Governance Committee chaired by the Chief Medical Officer and local Medical Advisory Committees were some of the key groups that were already established but joined the project governance, as well as the development of new governance groups. Guiding principles, developed and agreed by the WRTs, provided the fundamental pillars for decision and escalation.

A new eHealth clinical governance group was established as a subcommittee of the existing UCH Clinical Governance Committee composed of the clinical leaders from across the group and was chaired by the CMIO. This group, named SAGE (Strategic Advisory Group for eHealth), reviewed and decided any issues that could have a major impact across the group, were considered high risk and/or were escalated by the WRTs.

The governance for the non-clinical areas was established via a robust structure with a peak governing body chaired by the Executive Director. His commitment, guidance and leadership made a direct oversight and positive stewardship.

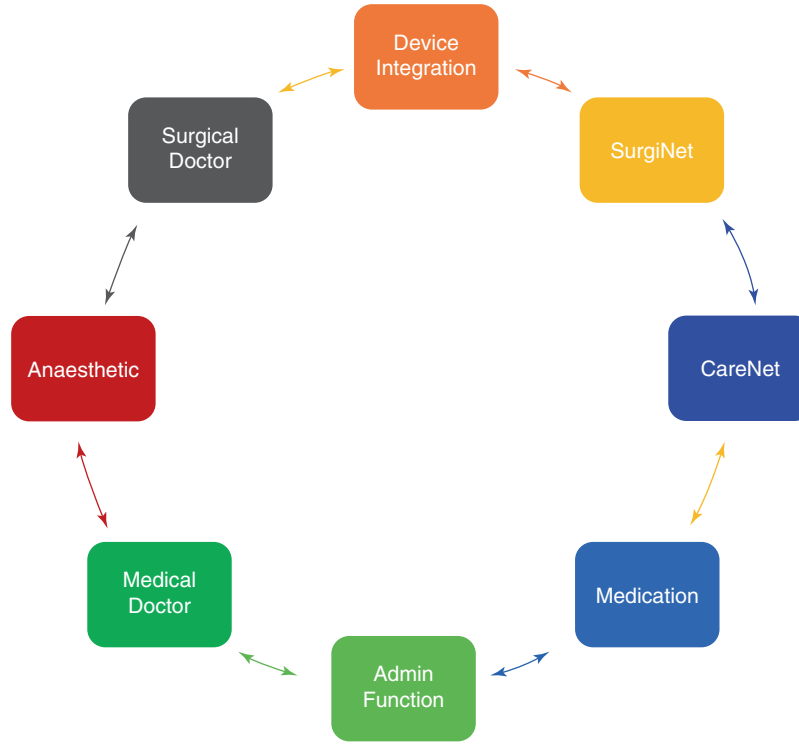


**Fig. 15.2** Clinical transformation and work redesign teams

### 15.11.3 Medical Engagement

A key to the successful opening of the new hospital was the strong medical engagement throughout the project. It is important to note the appointment of the Chief Medical Information Officer for UCH was a combined role with Director of Medical Services for SSH.

The medical engagement model utilised at SSH can be divided into three phases: Pre-implementation, Implementation (Go-Live) and Post-implementation (Fig. 15.3). The two drivers in the medical engagement strategy were a close partnership with all our medical colleagues while providing them with a tailored approach that covered the doctor's individual needs.

### 15.11.4 Pre-implementation: Phase 1

Early in 2013, invitations outlining the vision and scope of the project were mailed to all Visiting Medical Practitioners (VMPs) working for UHC between Hervey Bay and Brisbane. A high number of doctors from across medical and surgical specialities, as well as different levels of seniority, expressed interest in working at SSH.

Medical Work Redesign Teams (WRTs) were established with a total of 27 doctors. Initially divided into Medical and Surgical teams, it became clear that a third team for Anaesthetics would be required. Each Medical WRT was chaired by an elected VMP and facilitated by the CMIO (Fig. 15.4).

The focus of the WRTs was to provide guidance in the design of the EMR based on Evidence-Based Medicine and National Guidelines. This incorporated clinical protocols in 43 Diagnostics Related Groups, patients were more frequently admitted to SSH and those which were considered higher risk, for example, Sepsis and Warfarin management. The Medical WRT doctors acted as the clinical leads and representatives of their speciality. A panel of experts was selected to form an Advisory Board. Specialties which were not present at SSH, such as from cardiology, general practice, and emergency medicine, were also consulted.

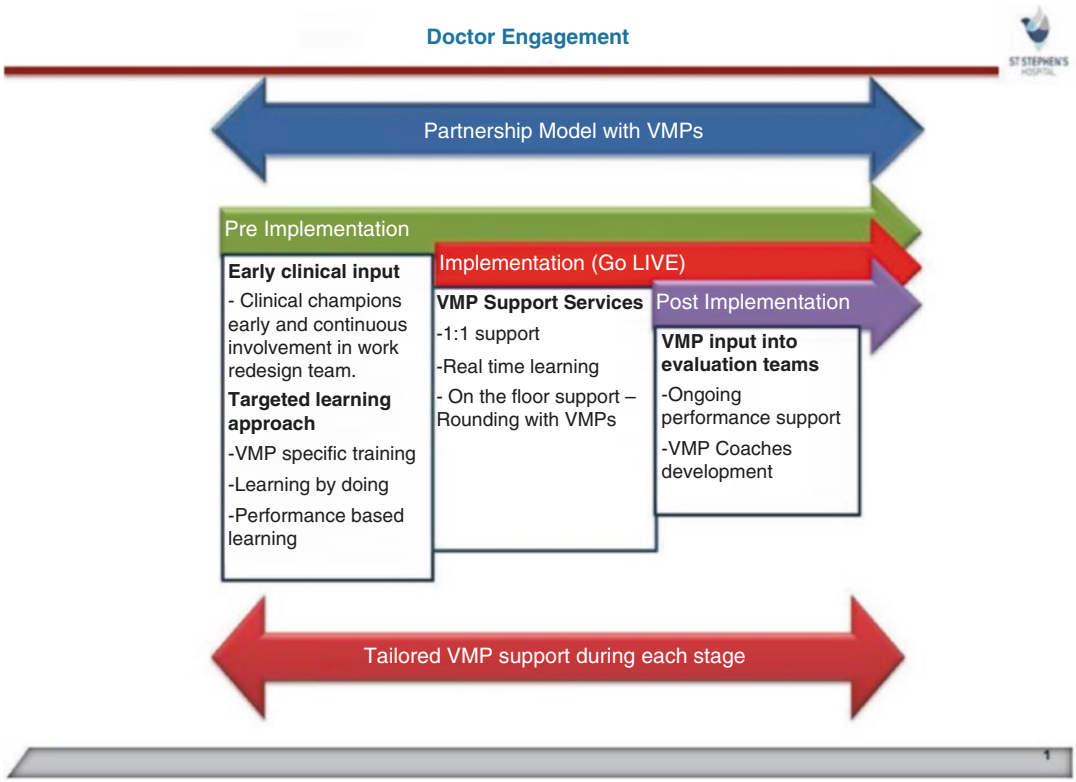


**Fig. 15.3** Medical engagement phases for St Stephen's Hospital. (Courtesy of Uniting Care Health and St. Stephen's Hospital)

The core team of eHealth Program Director, Cerner representatives, including their Physician Executive, eHealth Learning and Change Manager, Clinical applications Project Manager, Assistant CMIO and the CMIO spent a lot of time preparing for the WRT meetings.

After 10 weeks of intense effort, the initial design of the EMR was completed. The meetings across three different locations across the Queensland proved to be a logistical challenge, which was overcome by video-conferencing and a shared web-based meeting application. It was not easy, as both the Vendor and the WRTs Doctors were doing this for the first time in Australia and at times the views of both parties clashed. This is where the role of the CMIO was critical as it was important to make sure that the clinician concerns were addressed appropriately and in a timely fashion.

Designing a greenfield system with no previous experience and without the support of peers with any experience was an extremely challenging exercise. The majority of VMPs utilised a practice management software with an element of digitisation in their offices and therefore the comparison to their practice clinical information system was inevitable and posed a significant challenge. The project arranged a visit by a member of each WRT to sites in the USA with a fully integrated EMR sites in the USA.

Clinical champions emerging during the design phase later became the subject matter experts who assisted supporting their peers on the floor (Superusers). The Superusers performed a key role in driving adoption amongst their clinical peers.

There was a Superusers identified in each medical anaesthetic and surgical WRT. All three were passionate about driving safety and quality improvements to patient care. These individuals became experts in the EMR and clinical leads in the day-to-day operations of the system.

A Doctor's Workshop was organised in February 2014 following the US visit where their findings of their visit, as well as the WRT's efforts, were shared with their colleagues. This

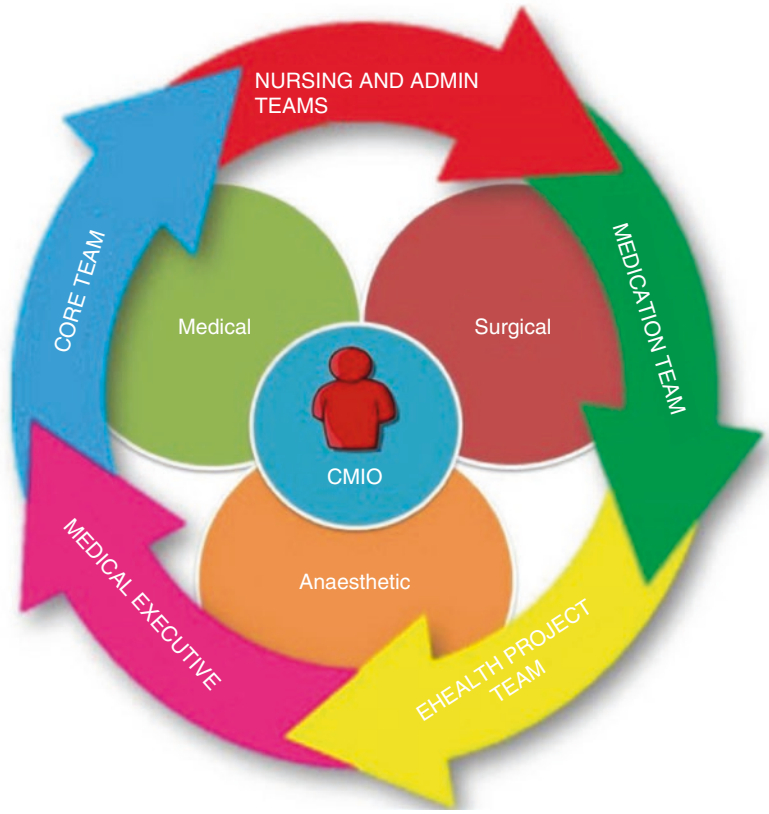


**Fig. 15.4** Doctor redesign teams and key stakeholder teams for St Stephen's Hospital project. (Courtesy of Uniting Care Health and St. Stephen's Hospital)

kicked off the learning and change phase, one which saw the development and agreement of individual learning plans leading to tailored training sessions. All VMP's were provided with individual training, an average of 6 hours per doctor. Although the CMIO provided most of the training to those VMPs with a high volume of admissions, essential additional support was provided by doctor Superusers (Chief Medical Officer UCH, Chair of Medical WRT, Chair of Anaesthetics WRT and Assistant CMIO).

It cannot be emphasised enough how important the 1:1 Doctor Training is for the senior Consultant group. If considering training for a larger organisation, alternative methods such as web-based learning and group training are recommended for the junior medical staff, as they are comfortable and used to that type of training. A train the trainer model can be used for the senior medical staff, where a peer will always be the one providing the training. The advantages of the 1:1 training are extensive as senior staff are the leaders of the multidisciplinary teams and it is imperative that they have a full understanding of how to use the system to ensure adequate patient care. During this individual 1:1 session, they can be loading their templates to ensure that the day of go-live as much as can be done beforehand is accomplished, increasing use and adoption of the system.

Alongside the development of the learning guides and plans, the doctor Superusers joined the eHealth team in the testing phase, including two Mock Go Live exercises, and proved to be critical members of the team with invaluable feedback and camaraderie.

### 15.11.5 Implementation or Go-Live: Phase 2

In preparation for the Go-live phase, a Medical Support Roster was developed with full Doctor coverage 24 h 7 days a week by the CMIO and Dr. Superusers. It is important to note that the Chief Medical Officer (CMO) for UCH was

part of the doctor Superuser group. The support of the CMO was absolutely indispensable during design and more importantly during go-live. Having an extremely experienced clinician with a high level of authority allowed for clinical governance matters to be identified, escalated and addressed at an incredibly fast pace. His leadership, support and dedication to the medical support team supported the high importance given to the medical engagement strategy by the Projects.

A progressively increasing theatre schedule was agreed by the surgical group with full operating theatre schedule to be running by the third week after opening. Doctor support was assigned between the operating theatre and inpatient wards, providing 1:1 elbow-to-elbow assistance. The presence of Cerner's Adoption coaches and Cerner's Learning Architect on site during Go-live proved to be invaluable - with hands-on assistance when required, working alongside the eHealth team's Clinical Applications Manager and Learning and Change Manager. This highly enthusiastic and committed group, backed by a large structure designed around a Command and Coordination Model, provided quick turnaround in changes required by the clinicians on the floor. The Command Centre was staffed mainly by the eHealth Program Director, a highly experienced CEO with an uncanny ability to identify and manage risks early who was also extremely charismatic and passionate and the CIO—who had only newly joined UCH, yet also had previous experience in EMR deployment overseas and proved a valuable resource. The governance structure devised to deal with changes or enhancements and issues identified was a rapid Change Advisory Board—"CAB Lite". Daily or sometimes twice daily meetings were undertaken to deal with the requests in a timely manner. Extraordinary meetings of the Specialty Groups were held to discuss the progress of the changes requested and obtain agreement for their advancement.

The 1:1 Doctor support model was rostered for 6 weeks, with gradual reduction of its intensity. Resources were directed to those who requested additional support and areas that required the most number of changes.

The time of go-live was a gruelling time. Long days up to 20 h of support and CMIO presence on-site were required. This level of support was required continuously for 6 weeks post go-live, posing a significant challenge for this period on top of the sheer physical exhaustion from team members.

The Program Director identified this early on and provided relief and support but in the end, it was her ability to keep everyone engaged that alleviated the challenges.

### 15.11.6 Post-implementation: Phase 3

The go-live phase morphed into the post-implementation phase; 6 weeks after go-live resources weaned down, and plans were put into place to transition the eHealth team and technical support from the eHealth Program Director leadership to the Chief Information Officer.

Several ad hoc meetings were held with the speciality groups at SSH to work collaboratively and quickly on issues identified and changes required. Communication of changes was done in a variety of ways: by email, noticeboards, meetings and face-to-face.

An analysis that was undertaken internally by the team 2 weeks after go-live revealed that there was a 92% adoption rate amongst the Doctors. The vendor leadership team members noted anecdotally that this high adoption percentage was rare and unique in their experience such a brief time frame after opening a new hospital. The 1st of December 2014, SSH was awarded HIMSS Stage 6, the first hospital in Australia to achieve this accomplishment.

Originally thought to require 3 months of local support by the Clinical Informatics team (previously EHealth project team), 6 months post go-live support is required on a weekly basis.

### 15.11.7 Key Lessons Learned

- Top leadership engagement is essential for the project to succeed. The dedication and commitment from the Executive Director, the Program Director and the CMO was invaluable. Their ability to understand the problems, trust their teams and support their vision provided us with the leverage to achieve what had not previously been achieved in Australia.
- Early engagement of clinicians, in particular, the medical practitioners, fosters a platform for true collaboration and high adoption of the EMR ensuring the end product is safe and usable.
- Pharmacists engaged early focussing on medicines management and medication safety will ensure you have a strong platform for safe use of the EMR. They are a key resource to support clinical safety and your medical workforce on the floor during and after go-live.
- The role of the CMIO is an absolutely essential position for any kind of EMR project.
- The learning phase needs to be planned carefully and practically in order to accommodate everyone's learning needs and favourite tools prior to go-live.
- The go-live period can be very gruelling and taxing on your team; make sure you have a planned roster with breaks in order to allow everyone to be at their best when rostered on.
- The go-live period requires a quick and responsive governance team due to the considerable number of changes requested that need to be evaluated, tested and implemented within a very short time frame.
- The patient perspective: During the go-live period it is important to note that there is a large number of people in each patient's room as they are supporting the clinicians on the floor. At times there could be up to more than five people providing support to different members of the clinical team; this can be very daunting to a patient. Make sure you allocate a separate role to a patient navigator whose key role is to ensure that the patients are being kept up to date with what is happening.

The key message from this case study is that this is not an IT project. It is, at the very core, a people project and as such needs to be managed as a transformation of the way healthcare is delivered rather than the design of an EMR.

Last but not least, our success was not one that can be attributed to one factor. The confluence of the right people, at the right time, with the right leadership was what made it happen. But technology is only as good as those that use it, in SSH we found a group of doctors, nurses and pharmacists who understood and shared the vision of delivering something truly unique. In the end, the success belongs to them: those clinicians at the coal face who deliver care on a day-to-day basis in a hospital which has now created Australian history and paved the way for the future of healthcare.

## 15.12 The Future of Health IT

We started this chapter with a look at health IT's evolution with a focus on implementing clinical systems and EMRs into hospitals. Although there is more to be done and large programs of EMR implementation are well underway, there is more work remaining to have these foundational systems of record in place.

As financial, service demand and other pressures continue to mount on health services, there is increasing focus to pivot from systems of record to systems of insight and intelligence. Health services want to use EMR and other data to gain clinical and operational insights previously impossible with paper records. A number of health services are using this data to develop predictive models, such as the risk of a subsequent unplanned readmission or early deterioration. Natural language processing technologies are able to interpret different sources of textual information to pull out key information. An example is flagging significant abnormal findings in radiology reports for patients that have been discharged from the hospital.

The intersection of healthcare provision, information and medical technologies is creating

new possibilities and marks an exciting future and one that can make a real impact in supporting quality care. Below are some of the emerging themes and trends in technology that are most likely to impact healthcare in the near future.

### 15.12.1 EMR Trends

- Patient-generated health data (PGHD) into EMRs and for EMR data to be available in patient and consumer applications.
- Real-time predictive analytics based on data in the EMR for example sepsis alerts and estimated length of stay.
- Interoperability from and between EMRs and patient and consumer applications using emerging interoperability and application standards, namely Substitutable Medical Apps, Reusable Technology on FHIR (otherwise known as SMART on FHIR). This allows third-party applications to be used within compliant EMRs.
- Decision support tools that can support clinical and personalised decision-making, examples ranging from pharmacogenomic decision support to precision dosing platforms for medications with a narrow therapeutic index.
- EMR data increasingly used to identify potential candidates of patients for clinical trials real time.
- Improved user interface and user experience design.
- Connections between EMRs and medical devices, such as infusion pumps and monitors.
- Telehealth and virtual consultation platforms are becoming more integrated into clinical systems and EMRs.

### 15.12.2 Digital Health and Technology Trends

- Faster mobile connectivity with emerging 5G will enable higher bandwidth mobile health uses such as video consultation, as well as lower battery consumption for connected devices.
- Hyperscale cloud service providers are lowering the cost of computing infrastructure and commoditising access to high-performance computing that is needed for processing of genomic data for example. Cloud platforms also enable agile application development tools, as well as connectivity and management of medical devices through the internet of things.
- Development of artificial intelligence and other cognitive service platforms for language translation, image machine learning, computer visualisation, chatbots.
- Artificial intelligence is being used in some specific use cases in healthcare, such as radiology image assessment. These are not yet being used in day-to-day clinical environments, but the technology is rapidly advancing.
- Secure messaging and eReferral capabilities across the health system are becoming increasingly standardised to support better interoperability.
- Payment model trials from fee for service to capitated or value-based payments driving needs for risk stratification, care management, case coordination, population analytics. One such example is the GP Health Care Homes trial in Australia.
- Video consultation and teleconsultation platforms have emerged to give patients alternative consultation mechanisms with their providers.
- Innovations in diagnostics are enabling more point of care pathology testing. Smartphones and smaller imaging tools such as handheld ultrasound scanners are increasingly being considered in aggregating clinical information around a patient.
- Increasing consideration is being given to cybersecurity practices in healthcare, including appointments of CISOs (Chief Information Security Officer's).

Like most countries, Australia is facing an inflexion point in health with a collision of demands, such as ageing and an abundant burden of chronic disease, outpacing our ability to

resource and manage them if we continue with the status quo. Governments have the unenviable task of curtailing costs and inevitably, these forces will more than likely lead to rationing of services and push new types of healthcare and payment models. Consumers and patients will have to support their own care more than they might today and all within an increasingly complex health information landscape.

All of these changes drive a need for digital health technology. It is not the technology alone that will drive change in healthcare systems, but it is well recognised that technology has already changed many aspects of our lives and this is likely to be true in healthcare in the future. The success of information technology and its utilisation in healthcare will be in its ongoing ability to evolve, adapt to new standards and technology and to ensure healthy doses of participation in its design and use from clinicians and patients.

## 15.13 Ready Reckoner

The key points covered in this chapter are:

- Health information technology is a relatively recent specialist area within technology and healthcare has been later in mass digitisation of information than other industries.
- Business cases built around improving information efficiencies, quality and safety can be supported by achievements from healthcare organisations that have invested in these technologies.
- In embarking on an implementation of an EMR, it is crucial for an organisation to have a cohesive vision, reason for change and objectives.
- Implementation programs that are centred around the patient and improving safety and quality outcomes will carry much more sway and support from across the organisation.
- Critical success factors include strong executive support and sponsorship of the project (made even more potent if the key sponsor is the CEO) and appointment of CMIO/CCIO/CNIO roles.
- The success of these programs is much more about getting right the process and change management rather than the technology. A well thought out governance structure is integral to achieve this.
- When considering scope of an EMR implementation, keep in mind what will give the greatest value in a reasonable timeframe—EMRs will continue to evolve and there will be an ongoing need to enable more services, optimise an existing implementation and add new technologies (such as mobility).
- As much as possible, leverage the experience of organisations globally and locally that have undergone implementation of an EMR, as well as the experience of the selected vendor.
- The case study of St Stephen's Hospital provides a very useful real-world example of how medical stakeholders were engaged in this beacon project.
- Health information technology will play more of a part as a strategic and essential tool in how we deliver care. Already we are seeing EMR systems provide more intelligence to clinical care with predictive analytics, and consumers engaging with medical information with their own mobile devices and platforms. Bringing this information together to effect good outcomes for the patient and population across the continuum of care is the future direction
- The future of health information technology will also be driven in part by the emergence and development of large cloud services and capabilities as they can provide a scale that was not there previously

**Acknowledgments** Dr Monic Trujillo - I would like to acknowledge Richard Royle, ED UCH, Connie Harmsen, eHealth Program Director, Dr. Yogesh Mistry (Assistant CMIO), Dr. Luis Prado (Chief Medical Officer UCH), Dr. Surendra Bhutra (Chair of Anaesthetic WRT and Director of Anaesthesia & Perioperative services, SSH) and Dr. Ranald Pascoe (Director Intensive Care, Wesley Hospital and Chair of Medical WRT) Connie Cross (Clinical appli-

cations Project Manager), Vicki Ibrahim (Chief Pharmacist UCH), Patricia Liebke (Learning and Change Manager) David Kempson (CIO UCH) and the fantastic Cerner team that worked with us. Dr Nic Woods - I would like to acknowledge Physician Executive colleagues from Cerner, to the digital health pioneers and all clinicians playing an active role in this exciting and important space.

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# Medical Education

16

Eleanor Flynn

**Learning Objectives**
By the end of this chapter, the learner should be able to:

- Gain an understanding of the continuity of medical education across a medical career, including vocational education.
- Understand the principles of medical student selection, and its role in medical education.
- Have an awareness of the important aspects in regard to curriculum, teaching, assessment and evaluation of medical students.
- Accept the need for continuing medical education and be aware of the positive roles doctors can, and should, take in medical education.

## 16.1 Introduction

The rapid advances in medical knowledge and technology plus the alterations in societal attitudes to medical knowledge can be seen as both a challenge and an opportunity for those involved in medical education at all levels. Those outside the profession may regard medical education as solely the province of university courses from which students graduate to staff hospitals and clinics. Insiders understand that medical education is a continuum albeit one with several distinct phases: preparation for practice courses conducted by Universities licenced by a Government approved body enrolling either or both school leavers and graduates into their courses; the prevocational education frameworks and experience of new graduates; vocational education and experience designed to meet the requirements of the postgraduate colleges and the accrediting bodies of the colleges; and continuing medical education for vocationally registered practitioners to ensure they continue to meet the requirements of registration Boards.

This chapter will provide some insights into the current state of play in these various fields, the issues of concern for the educators and the important roles that doctors can and should play in medical education.

Education has been an integral part of medicine stretching back to Hippocrates, though for him the teaching role was limited to the sons of *he who taught me* [1]. The increased number of women in the medical workforce and the widening access programmes, which encourage students from underrepresented populations, such as lower socio-economic status (SES) and refugee backgrounds provide a more diverse range of medical graduates. This chapter will not provide an historical overview of medical education; however, it is important to mention the contributions of two men whose work is still influential.

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E. Loh et al. (eds.), *Textbook of Medical Administration and Leadership*,
https://doi.org/10.1007/978-981-10-5454-9_16

William Osler, a Canadian physician, was professor of Medicine at several Canadian and American medical schools finishing as Regius Professor at Oxford from 1905 till his death in 1919. His advocacy of the role of understanding disease, the importance of bedside teaching and the need to listen to patients remain pertinent in current medical teaching programmes [2].

Abraham Flexner's influence on the models of North American medical education was even greater than that of Osler although he wasn't a doctor. His report on the state of United States of America's (USA) medical education for the Carnegie foundation in 1910 identified schools where graduates had gained degrees with almost no scientific or clinical teaching. The American Medical Association accepted his recommendations that all medical schools should be: connected to a university, include basic sciences teaching, and offer clinical apprenticeships in their courses [3].

Although Flexner's work was reviewed in the United Kingdom (UK) and Europe he had less obvious influence there because university linked teaching hospitals and medical schools with an apprenticeship model had been in place from the late nineteenth century, or earlier in some instances. Following Flexner's report, North American medical schools developed a model of graduate entry after a basic degree with a science loading, while British and European medical schools primarily continued their intake of students direct from school.

### 16.1.1 Australasian Differences

The Australasian, encompassing Australia, New Zealand and Papua New Guinea, model of medical education is based the British model more than the USA one primarily because the initial universities developed from British models often employing UK professors until the mid-twentieth century. Prevocational education and experience, and vocational education through colleges remain closer to the UK model though changes are occurring. The move, in more than half of the Australian medical schools, to graduate entry means that these education programmes have similarities with US schools, especially when the candidates are expected to have science prerequisites in their initial degree.

There are several aspects of medical education in Australasia which are somewhat different to that in other regions: the effect of distance, both from other parts of the world and within the country, the imperative to develop and deliver health programmes for Indigenous members of the population, the importance of providing health care for people of different cultural and linguistic backgrounds, the number of international medical graduates providing service roles, and the recent more than doubling of graduate numbers from Australian medical schools. The enhanced role of the Australian Medical Council (AMC) as the accrediting agent for all phases of medical education across Australian university medical schools, prevocational training programmes and colleges and most phases in New Zealand medical schools and colleges is likely to stimulate further changes in Australasian medical education.

Of the 20 medical schools in Australia only seven do not have a defined graduate entry stream while 12 are graduate entry only, a major change in the last 20 years. As well as the increase in graduate entry programmes there has been a more than doubling of the number of medical students graduating in the past 12 years partly due to increased numbers of students in existing schools, but mostly to the opening of nine new schools. New Zealand currently has two medical schools both with predominantly school leaver entry and Papua New Guinea has one medical school with a school leaver intake.

## 16.2 Medical Student Education

### 16.2.1 Selection

Selection is considered the most important task in medical student education in the many countries where there are low attrition rates for medical students. When those admitted are likely to graduate getting selection right is seen as a major

task. While studies demonstrate that candidates' prior school or degree results best predict their results as medical students, not only to graduation but also through their postgraduate career, most medical schools use instruments such as aptitude tests, interviews and portfolios in addition to the candidates' previous academic results in an attempt to choose well-rounded candidates who will make good doctors [4]. These tools are employed to gain an understanding of the candidates' personal qualities and responses to situations using the human resources perspective that past behaviour is the best predictor of future behaviour. These instruments are sometimes called non-cognitive; however, they are better called measures of personal qualities, as it is obvious that cognitive skills are required when responding to a series of decision-making scenarios. The currently used aptitude tests include sections on critical thinking in the sciences and humanities, ethical and empathetic responses to triggers, the ability to write essays and pattern matching. The evidence for their benefit in selection is limited as the correlation studies between the test results and subsequent assessment results all have the same problem of range restriction in that only the very brightest applicants are accepted [5]. The aptitude tests used in Australasia are the Undergraduate Medicine and Health Science Admission Test (UMAT) and the Graduate Medical School Admission Test (GAMSAT) while North America uses the Medical College Admission Test (MCAT) and the UK uses the UK Clinical Aptitude Test (UKCAT), the Biomedical Admissions Test (BMAT) and GAMSAT. The UK and US tests are now fully computerised though GAMSAT, which requires two essays, is still a paper-based test.

Interviews are commonly used in addition to academic results and aptitude tests, particularly in medical schools wishing to match students to specific programmes and those wishing to broaden their intake demographic. Interviews in many schools across the world have moved from the structured or semi-structured panel interview to multiple mini interviews (MMI). The MMI is commonly used in Australasia, the UK and Canada with the uptake in schools in the USA, South America, Asia and the Middle East being slower. In Europe, where university intake is not only based on prior academic results but also on meeting individual government regulations, the move to include interviews has been slower [6].

MMI setups involve up to ten separate stations where a single interviewer per station asks all candidates the same questions or poses the same dilemma. Eva and Reiter developed the MMI from the Observed Structured Clinical Examination (OSCE) used in many medical schools and postgraduate training programmes [7]. The benefits of the MMI are the number of different interviewers interacting with candidates and the several different scenarios and questions that can be asked in the same time that panel interviews take. Evidence is emerging that candidates who do well in an MMI not only do better than their peers in OSCEs but also in the communication tasks of clinical clerkships [8].

Communications technology such as videoconferencing can be employed to conduct interviews, including MMIs, for candidates who would otherwise need to travel overseas or across countries to attend face-to-face interviews. As well as using computer-aided systems for scoring their definitive interviews medical schools are developing models of computer-based scenarios as a preliminary interview used to narrow the applicant pool for face-to-face MMIs [9].

While many UK and some Australian medical schools incorporate an applicant portfolio or candidate statement in their selection processes, there is no good evidence for this practice. The reliability of portfolios and applicant statements is poor as applicants can gain assistance from many sources. These instruments also prejudice applicants from lower SES backgrounds who may need to work in their non-study time and are neither able to gain the required volunteer experience nor have the contacts to get appropriate volunteer situations or assistance in the development of polished statements.

The issue of widening participation in medical education is gaining more traction in recent years. The World Health Organization regards medical schools as having an obligation to direct their education towards the health needs of the

populations they serve, so medical schools across the world have developed a range of widening access programmes for candidates from under-represented populations, such as Indigenous, refugee, rural background and low SES to encourage them to apply [10]. These include targeted programmes in regional high schools to encourage applicants from backgrounds not traditionally seen in Medicine as well as assistance once students gain a place in the course.

There are several possible roles for doctors in the medical student selection process. Primarily as interviewers in either standard interviews or MMIs, and as developers and providers of clinical placements for candidates from widening access programmes to enable these potential doctors to gain relevant experience to enable to discern whether they could successfully apply for medical school. When candidates are interviewed by doctors this gives a message to the candidates of the value that doctors place on this activity.

In summary, the issue of selection is extremely important in medical student education due to the very low attrition rate in most UK, North American and Australasian schools. While current selection instruments include measures of previous academic attainment, the requirement for prerequisite subjects, candidate statements, and a variety of other measurements of personal qualities including interviews, the processes vary greatly in the weighting placed on the components. Those seeking admission to medical school need to be very aware of the particular instruments and the combinations being used by the schools to which they are applying.

### 16.2.2 Curriculum-Teaching

Most medical students' courses are based on the Flexnerian models of basic sciences in the early years, physiology, biochemistry, anatomy, pathology and pharmacology, followed by clinical placements in hospitals and other health services in the later years. Changes in the last 40 years include the developments in curriculum design and teaching practice which aim to connect the students' scientific and clinical learning plus adding other elements to encourage students to think outside the box.

The lecture and practical session model of past years has, in some instances, been totally replaced by Problem- or Case-Based Learning tutorials while in other curricula these are supplemented by lectures, practical sessions, and anatomy dissection. The aim of problem- or case-based learning is to encourage students to integrate their science-based teaching when considering common clinical problems. Students are encouraged to develop hypotheses in relation to the problem being represented using their existing and new scientific knowledge, including the mechanisms of action of the pathological processes under consideration. These programmes encourage students to develop clinical reasoning skills which become even more important as they move into the clinical rotations of their course.

Many schools include early clinical exposure through visits to hospitals and community practices as well as tutorials with simulated patients in the preclinical years to assist the students to consider the effect of disease, particularly chronic disease, on patients. As well as these early clinical experiences there are also longitudinal programmes where the whole, or part of each student cohort, spends time in suburban, regional or rural community practice settings in their clinical training years. In some programmes students see the same patients over many months and are encouraged to develop a patient-centred approach to practice [11]. For other students this approach is encouraged through patient partner programmes where students follow one patient for a period of time, focusing on the patient's interactions with the health system as well as their illness experiences.

For these student patient interactions to succeed there is a need for good communication and such skills are now a key part of many medical school curricula. Examples of best practice in this area include experiential learning sessions where students interact with simulated or real patients and the conversation is filmed to allow playback with feedback from the patient and the student colleagues as well as the facilitator. The decreasing cost and size of cameras has encouraged more instances of this practice across

hospitals and clinics. One problem with communication skills teaching is the pre-loading in the early years before students have had much patient experience. Schools which provide integrated clinical and communications skills programmes throughout the clinical years allow students to develop and practise appropriate skills across the student's learning trajectory [12].

Other uses of technology in medical education include projecting teaching sessions to another campus, or in simple procedural skills acquisition using part task trainers, for example, learning to insert intravenous lines into a dummy arm, to more complex life support training sessions with high fidelity models. Most students will work with both high and low fidelity models and specially trained simulated patients in their acquisition of clinical skills, including intimate examinations [13]. The model of deliberate practice is used in the acquisition of clinical skills, where students improve their capability by continued practice of skills coupled with constructive feedback and reflection as they move from simulation sessions to interacting with patients [14].

As well as the development of specific clinical skills students are provided with many other educational experiences. For example, the role of the humanities in medicine may be included as elective or routine parts of the curriculum, involving visits to art galleries or writing workshops, often with a focus on the important role that understanding ethics, emotions and empathy play in medical practice [15]. Other educational activities include interprofessional learning, which may take place in student led clinics or wards with other health professional students. In many schools there are also electives, selectives, pre-internships and student conferences which provide opportunities for students to gain educational experiences in other health settings, and to specialise to some extent.

An important and relatively new component of medical curricula is the emphasis on the demonstration by the students of professional behaviour in their patient, staff and colleague interactions. This is now both taught and assessed in most medical schools with Fitness to Practice committees making decisions on students' behaviours [16]. These programmes and practices build on the work of Papadakis and others considering the problems caused when medical schools do not recognise or deal with unprofessional behaviour in students [17].

Some educators consider that there are now too many short-term activities in medical curricula so that students have difficulty developing a proper framework for learning and the suggestion has been made that apprenticeship, central to Osler and Flexner's educational visions, needs to be revitalised [2]. Also while most medical educators consider that the benefits of assisting students to learn how to learn rather than rote learn outweigh the somewhat black and white view of clinical medicine that the students may receive from problem-based learning, others remain to be convinced.

There are many possible roles for doctors in the areas of curriculum development and teaching of medical students beginning with curriculum development and maintenance. Here the role of doctors in emphasising the importance of integrating and translating research findings into teaching is vital, including the importance of demonstrating evidence-based physical examination practices [18]. The role of doctors as teachers of all clinical subjects cannot be understated, particularly the importance of doctors as the teachers of communication, medical ethics and professional behaviour. The face validity of having doctors as teachers and mentors in these subjects demonstrates to students that they are seen as important by the profession. And perhaps the most important role that doctors have in teaching medical students is that of role model, someone whose inclusive and supportive behaviour towards patients, families and other staff while demonstrating evidence-based practice is such that the students will want to base their practice on it.

### 16.2.3 Assessment

Assessment remains the issue that most concerns students and to some extent their lecturers and teachers. Across the world the entry to practice assessment at the end of the course varies between

national examinations which may be also undertaken by students from other countries, for experience or in the hope of gaining work, and final exams set by individual universities. The USA and Germany have final common assessment pathways whereas in the UK and Australasia medical schools set their own exams.

The overall framework for assessment in most medical schools is based on a time model with added components of a competency model, which means that most courses expect students to have achieved the necessary skills over their period of studies with the requirement that some specific capabilities must be demonstrated before the student can graduate. Critics of the competency model are concerned that demonstration on a particular day does not always translate into continued capability in that task. The concept of Entrustable Professional Activities has been developed recently to describe those "units of professional practice, defined as tasks or responsibilities to be entrusted to the unsupervised execution by a trainee once he or she has attained sufficient specific competence" [19]. Such a model allows the teacher to assess the trainee's ability to safely perform a clinical task in an ongoing manner and once the actual assessment frameworks are consolidated this should allow for more robust assessment of clinical tasks.

The actual structures of assessment within courses vary greatly, where some courses have almost continuous assessment and others have major exams only twice in the whole course. We know that assessment drives learning so it is vital that the assessment will drive the learning in an appropriate manner, towards development of clinical reasoning and away from rote learning of facts that may no longer be correct by the time the student graduates and which can be looked up easily in most instances. Most schools use a model of assessment based on educational research demonstrating that matching the content and style of the assessment to that of the learning assists both the learner to demonstrate their learning and the educator to discover whether the students have understood the teaching. The use of Miller's Pyramid to describe the hierarchical levels of capability from knowing about something to being able to perform a task safely assists medical educators to develop appropriate assessment tasks for the task and level they wish to measure (Fig. 16.1).

Most units and subjects have formative assessment, where students get feedback as they

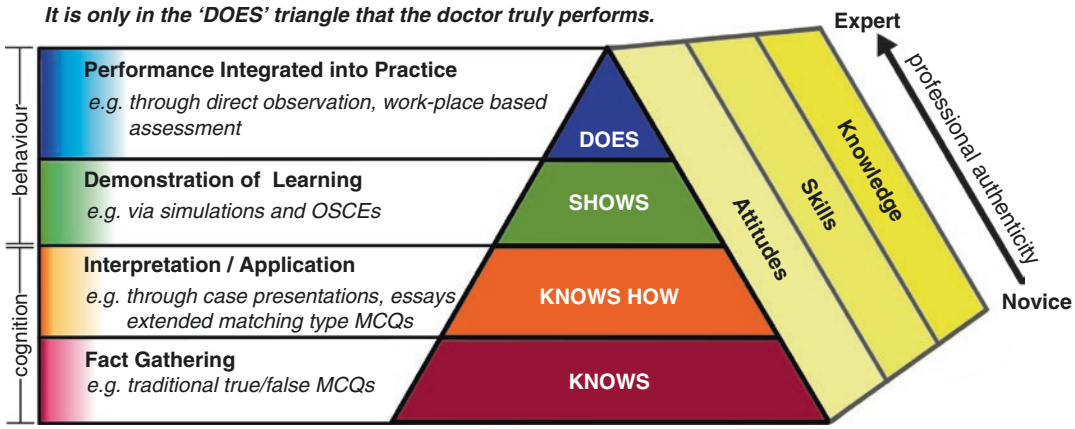


**Fig. 16.1** Miller's Prism of Clinical Competence. (From Miller's Pyramid of Clinical Competence," by R. Mehay and R. Burns, 2009. In R. Mehay (Ed.), The Essential Handbook for GP Training and Education (Chap. 29: Assessment and Competence, p. 414). Also available at: http://www.essentialgptrainingbook.com/chapter-29.php. Reproduced with kind permission of Dr. Ramesh Mehay)

progress through the subject so they can improve, and summative where they gain final marks. All of the following assessment types are used in medical schools and can be used for formative or summative purposes: multiple choice questions (MCQs), extended matching questions (EMQs), short answer questions (SAQs), case-based discussions (CBDs), situational judgment tests (SJTs), essays, reports, OSCEs, long cases (both observed and not), mini clinical examinations (miniCEXs) and direct observation of procedures (DOPs).

While MCQs are sometimes regarded as only measuring rote learning, well written ones with appropriate clinical scenarios require students to use clinical judgement to get the correct answers and can indeed be written for topics such as ethics and professional behaviour, although SJTs are more commonly and successfully used for these. SJTs use a scenario describing a situation with both clinical and personal issues where the candidate is given a set of possible answers to either rank in order of best fit or to give the two or three best answers. They are particularly used in end of course assessments where the teachers wish to assess the students' readiness for clinical practice with its ambiguities. EMQs are a variety of MCQs where a list of possible diseases, symptoms, investigations, or examination findings is provided along with several clinical scenarios and the candidate matches the scenario to an entry on the list above. One benefit of EMQs is that the same scenarios can be recycled using a different list of questions for later exams. The primary benefit of MCQs, EMQs and SJTs is that they can all be machine marked allowing rapid results and individualised feedback.

The other types of written exams, SAQs and essays, require individual marking though with the development of an appropriate marking guide for the question this task becomes both less onerous and less subjective. Common instances of written exams include a mixture of MCQ, EMQ, SJT, SAQ and more traditional essay questions.

With regard to clinical exams OSCE, miniCEX, CBD and DOP as well as long cases are the usual types of summative clinical examinations. OSCEs are structured clinical examinations where each candidate has the same experience because the simulated patients in the cases have the same scripts. The tasks include taking histories, performing targeted examinations, providing explanations and may include procedural tasks where a part task trainer is used for the student to manipulate while conversing with the patient, for example, repairing a wound on a pad strapped onto the simulated patient's arm while explaining their actions to the patient. The benefits are that the students all get the same set of experiences, and when well written the students can be questioned on their clinical reasoning as well as having their communication and examination skills observed. The downside is that the students become adept at the moves expected by the examiners, and may pass even though they do not have very good clinical or communication skills in the wards.

For this reason the miniCEX and CBD were developed. MiniCEXs are targeted brief examinations observed by the assessor involving real patients and best done in a clinical setting where the student does not know the patient. This type of assessment is preferred to the long case because the assessor observes the student's interaction with the patient which rarely happens in the long case where the student spends up to an hour with a patient before summarising the case to the examiner. Tasks might include a targeted history of one or two presenting problems, a targeted examination of one body system, or the communication of investigation results or discharge plans. They can be used for medical students and by increasing the degree of difficulty for trainees in specialty practice. Although they are often used for summative purposes they are best used in formative situations when the assessor can give real-time feedback to the candidate and have the opportunity to observe the candidate again doing a similar task. Unless students are in clinical situations where they have the same supervisor for a long period it is unlikely that they will have the opportunity to be observed performing a clinical task to get feedback, so the observation and feedback are important. While miniCEXs are less likely to be gamed than OSCEs there are problems when they are used for summative exams as students will not attempt them until the end of a rotation by which time they pass easily and often

do not listen to and thus benefit from any feedback. Case-based discussions (CBD) are an examination of the notes the student or doctor has made in the care of the patient where the examiner discusses the decisions made and documented, and the clarity of the notes as a handover tool. Although they can be used for medical students they may be artificial unless the student is on a student run ward. They are very valuable as formative assessments for newly graduated doctors where the doctor's clinical thinking as well as their documentation practices can be reviewed.

Newer types of assessment include progress testing where all the students of one or more medical schools undertake the same MCQ examination each year, providing information for the students and the medical school on where each student is in relation to their previous performance and the cohort [20]. For these examinations it is usual to provide feedback to students on their progress relative to their previous grades and/or to their cohort. It is possible to do this for other types of assessment though this is made more feasible when the examinations are undertaken on, or marked on, computers or tablets. Collaborations between universities and assessing bodies have led to banks of MCQs and SJTs which can be accessed by those who have bought into the scheme, or provided sufficient examples to the pool [21].

Doctors play important roles in the assessment of medical students, both in developing the assessment tasks to match the taught curriculum and especially as examiners in the formative and summative clinical assessment tasks, OSCEs, miniCEXs and CBDs. The provision of appropriate feedback which assists the student to focus their learning is a skill well worth acquiring for all doctors who teach medical students or supervise trainees.

### 16.2.4 Evaluation

One of the major changes to medical education since the late twentieth century is the extent to which courses are evaluated and the information gathered used to modify the courses in a true quality improvement cycle. Academic staff organise the regular evaluation of all aspects of the courses, including exams, by students, teachers and the simulated patients used in teaching and OSCEs. There is an evaluation requirement for accreditation by both universities and the accrediting body for medical schools; however, much of the evaluation developed in medical schools goes beyond the minimum accreditation obligation. The benefits of thorough and regular evaluation processes enable medical educators to discover which components of the course students value and which may no longer meet the needs of the cohort. Gaining robust and useful feedback from students can be an issue when the university uses electronic feedback systems. Such systems suffer from a low response rate which devalues the data. Several schools continue to use paper forms at times when students are captive to ensure the best data capture. Tutors and examiners value gaining feedback when they respect the data, for example, providing information on where an examiner's marking was in relation to the mark range of all examiners for an OSCE.

The role for doctors in evaluation of the medical courses includes providing realistic and structured feedback on the value of the teaching sessions and assessment activities that they have been involved in. The broadcasting of negative unstructured comments to the students or other teachers is not the most appropriate way to effect change in the curriculum or its assessment.

### 16.2.5 Student Involvement

Another recent change in the governance of medical schools is the involvement of students on curriculum and other committees in medical schools, which assists in the provision of informal feedback and also in the connection of the educators with the student body. These activities encourage students to gain an understanding of the how the curriculum, assessment and evaluation are developed and implemented and to be aware of the teachers' efforts maximise the learning of all students.

### 16.2.6 Student Support

As well as student input into the medical school there are often formal support services provided for medical students over and above the general counselling and health services provided by the University. Given the evidence that medical students suffer anxiety and depression disproportionately higher than their fellow students, it is appropriate to support these students who, as well as dealing with the financial and exam stress issues of other students, are also interacting with very ill and dying patients and attempting to develop suitable professional behaviours, sometimes in the face of unprofessional behaviour from the clinicians who teach them [22]. Combined with the general support for all students there may be specific support provided for students with impairments which limit their performance in assessment tasks. Medical school staff usually negotiate such individual modifications with the assistance of the disability or occupational medicine unit of the university. In relation to the abilities of entrants to a medical course many schools have a core participation requirement which sets out the abilities and behaviours expected by medical students in the course.

A recent development in relation to managing student problems is the belated recognition of the support needs of the staff who are primarily involved with students in distress. A recent Australian intervention of workshops for academic and professional or administrative staff, developed from the issues brought up in staff interviews, is proving helpful for these staff to understand the issues that students raise and how to provide appropriate assistance [23].

The role of doctors in student support may be as employees of student health and support services, for most it will be a more general role of encouraging students to have their own family doctor and to seek professional help when they have any issues which are impeding their learning. It is important that doctors in educational relationships with students do not provide medical support for these students, as this is a boundary violation which is likely to mean that the student neither gets a good educational nor an appropriate personal clinical outcome.

### 16.2.7 Funding and Scholarships

The ways that medical schools are funded varies widely across nations and includes mixes of totally government-funded schools where all tuition is free to those which are totally privately funded requiring the students to pay for everything. Students at medical schools in the UK, North America and Australasia currently pay either as they study or after they graduate. In most countries higher fees are charged for students from other countries. Scholarships may be provided for students from disadvantaged or Indigenous backgrounds and those who have gained high grades in the entrance requirements. In Australasia these programmes are particularly developed for Indigenous candidates. To help in meeting the health needs of rural Australia, currently 25% of the students in medical school intake are bonded to work in an area of need, usually rural or regional, for a period after graduation.

### 16.2.8 Medical Education Research

Medical educators and policy directors in universities and health departments are involved in research on the effects of medical education on students and graduates. Early and continuing work involves looking for correlations between selection policies, practices and results in search of the perfect selection tools even though such research will always have major limitations as previously mentioned. Researchers considering assessment context and content continue searching for the assessment practices which best meet the needs of both educators and students. Curricular changes are more difficult to research as the effects take some time to observe and the socialisation of hospital practice tends to decrease the effects of specific teaching [24]. In Australasia the Medical Schools Outcome Database (MSOD) coordinated through the Medical Deans of

Australia and New Zealand collects data from all medical students about intention to, and actual, practice after graduation. The data is also beginning to be used to see if the selection, curricula and assessment policies of particular medical schools have an effect on the students' intentions and actual practice.

### 16.2.9 Educating the Teachers

The education and training of the medical education workforce, both preclinical and clinical, is essential to ensure that student education continues to meet the needs of the students while expanding their learning. Programmes such Teaching on the Run can be provided in departmental meetings or at other targeted times [25]. Furthermore, a range of specifically medical or clinical postgraduate education qualifications has been available for over 30 years for those wishing to gain more knowledge and skills or for those assuming leadership roles in medical education [26]. The recent widening availability of these courses has been coupled with an increasing expectation that clinicians with a substantial teaching load will undertake such courses. To enable maximum attendance these courses are often predominantly online with short intensive face-to-face sessions during non-teaching periods.

## 16.3 Prevocational Education

Once medical students graduate, their path into practice varies greatly across the world. In the UK and Australasia new graduates undertake a period of 1 or 2 years in predominantly hospital practice in a series of general and special rotations where they are assessed against expected performance for that rotation and level of expertise. The gateways to these positions are commonly the students' marks at medical school and an interview process, which may be MMIs, SJTs or online assessment tasks based on MMIs and SJTs. Once the period of prevocational experience is completed successfully, the trainee doctor is given full registration by the accrediting medical board and can undertake further training, or in some cases move to solo practice. The education provided in these programmes is predominantly clinical and needs to start with a robust and practical orientation programme so that the new graduates can understand and work well in the hospital system [27]. There will also be regular teaching and sometimes debriefing sessions. In some jurisdictions assessments of these provisionally registered doctors are mandated and include miniCEXs and 360° reviews while in other systems the assessment is limited to a form completed by a supervisor at the end of the rotation.

The practice in North America is that medical graduates enter a specialty training programme as soon as they graduate and remain in that programme until they successfully complete their board certification exams after which they go into solo and hospital practice so there is no real period of prevocational education. In areas of Asia and the Middle East new graduates might have a period of general hospital internship but may also be expected to work in relatively unsupervised community settings or provide medical services for military organisations.

The role of the senior doctor in prevocational education is often that of role modelling best clinical practice and supporting the new graduate to translate their academic knowledge into good clinical practice. Obviously there are assessment requirements for the trainee and it is important that these are undertaken in a way that allows the new graduate to learn from their assessment, in a fair and non-discriminatory way.

### 16.3.1 Vocational Education

In most countries medical graduates seeking registration, as specialists need to meet the assessment requirements of a profession led college, faculty or board. Entry into these positions may be by formal interview, MMIs, SJTs or a group of assessment tasks at an assessment centre. For sought after training positions a period of formal research leading to a Masters or

Doctorate qualification may be required. Discipline specialists in the colleges, faculties and boards set the entry criteria, the training curriculum, the length and types of positions suitable for training, and the assessment tasks required to fulfil each specialty programme. The assessment tasks often include written and clinical examinations as well as periods in required training positions so that at completion the successful doctor is seen to be competent in both the theoretical knowledge and practical application of the chosen field. The clinical assessment tasks include those mentioned above in the medical student education section, particularly OSCEs, miniCEXs, long cases and CBDs. The direct observation of practice, which in the medical student situation is usually a technical skill such as inserting an intravenous line, may be replaced by a more relevant task such as correctly anaesthetising a simulation manikin.

In the UK, North America and Australasia this model pertains while in other countries Universities or government bodies undertake these functions of accrediting doctors for sole practice in a speciality. However the most established of these vocational training organisations are possibly more correctly considered as gatekeepers to the desired vocational practice rather than education providers.

More recently colleges have developed and begun to implement curricula and teaching for candidates to match the assessment tasks partly in response to the accreditation requirements of their particular nations. In Australasia, the Colleges are accredited by the Australian Medical Council against their provision, or organisation, of education and assessment to match their curricula. Many of the educational frameworks of these organisations around the world are based on the work done by the Royal Canadian Colleges of Physicians and Surgeons in their development of CanMEDS [28]. This framework used to consider the development and performance of the best possible medical practice is intuitively attractive with its flower and petal structure where the centre is the medical expertise of the speciality and the petals are the same for all specialties. These common domains which all specialties need to consider in their development of curricula, training programmes, assessment and continuing education are: medical expert, communicator, collaborator, leader, health advocate, scholar and professional.

From the work done on the implementation of CanMEDS and other research there is an increasing emphasis on the need for communication skills training of candidates. Depending on the college or board this will range from an annual short session on specific communication issues for that specialty to week-long communication skills teaching programmes with actors. Other possibilities include seminars backed by workbooks for particular skills development, e.g. communication with people who have type 1 diabetes [29].

Given that the vocational training of doctors is predominantly conducted by medical staff in hospitals and clinics there are many roles for doctors in this arena of medical education. It is important that those assessing candidates do so in an educationally rigorous manner, giving fair and constructive feedback to allow candidates to improve their performance. It is also best practice that candidates have the opportunity to be assessed by more than one or two supervisors in each rotation. For those accepting the supervisor role for college or board trainees there are requirements that they will undertake training on supervision and assessment of trainees, which are now mandatory for many organisations.

### 16.3.2 Continuing Medical Education

There are now requirements, in most jurisdictions, for doctors who have passed the required hurdles demonstrating their capability for solo practice in a speciality to provide evidence of active participation in continuing medical education. These rules have developed from several directions of medical education thought: firstly the evidence that proving continuing competence in medical practice may lead to less referrals of doctors to the registration authorities because of poor practice, secondly from the perspective that

it is vital that practitioners remain up to date with changes in medical knowledge, and thirdly from the educational understanding that deliberate practice with feedback is required to maintain as well as develop a skill.

In many countries the continuing education programmes are mediated, if not directly provided, by specialist Colleges or Boards and require the practitioner to provide evidence of satisfactory compliance with the mandated programmes to both the relevant college or board as well as to the medical licensing authority. In some instances the practitioner can gain credit for undertaking medical education courses within the college or at a university and thus improve their knowledge of the student and trainee requirements for their courses. There may also be financial imperatives connected to continuing education programmes if government funding of patient care episodes is linked to compliance with continuing medical education.

### 16.3.3 Summary

In conclusion, medical education is a continuum from entry to medical school to retirement with many of the same teaching methods and assessment tools being applied at most steps of the journey. The importance of matching both the content and context of the assessment to the curriculum needs highlighting. There are specific roles for doctors in all stages of medical education, as curriculum designers, teachers and assessors with perhaps the greatest role being that of positive role model.

## 16.4 Reflections

- The important issues in contemporary medical education are the selection of both medical students and trainees into vocational programmes and the management of medical students and trainees through these courses.
- The proper use of the most appropriate assessment tools, which match the curricula in content and context, is key to being confidence that the graduates are capable of medical practice at their level of entry.
- The importance of doctors as educators, assessors and role models cannot be understated.

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