Chapter 10
Through the Looking Glass: Visions of the Future of Health Care

Abstract The value-based transformation of the US healthcare system is here to stay. Expectations regarding quality, transparency, standardization, and cost control will be permanent fixtures. How the healthcare system responds to change remains to be seen. The potential to analyze large amounts of health-related data promises to improve patient care by informing care decisions and evaluating treatment effectiveness. Implementation of new practices has the potential to improve the standards of care. Health care can become a new partnership with patients as key stakeholders engaged in personal responsibility for their own health.

Scope of the Problem

Healthcare transformation has dramatically changed the healthcare landscape. These include three major considerations: (1) access, (2) quality, and (3) cost control.

Access issues are politically highly charged as they relate to government influence regarding healthcare disparities, an individual mandate for health insurance coverage, uniform health benefits, and exclusion of preexisting conditions in adjusting premiums. Most medical organizations and the majority of the public favor public support for healthcare coverage [1]. The Congressional Budget Office estimates that

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the elimination of the individual mandate for health insurance, which takes effect in 2019, will increase the pool of uninsured individuals by 13 million, and increase premiums by 10% for all, as younger healthy individuals are no longer required to purchase insurance [2]. Many elderly individuals could have much higher premiums, as the marketplace dictates. Medicaid, which covers 20% of the population, could be block-granted to the states, shifting more costs to individual states. Millions of individuals may forgo health insurance if it is unaffordable, and the array of services covered by Medicaid could be dramatically reduced by individual states.

Regarding provision of quality care, this element has broad support and is likely to be a permanent fixture of health care. Quality outcomes are the core of value-based purchasing as reflected in the quality reporting metrics for hospitals and physicians, the new transparent Physician Compare site which the public can access, and the payment incentives for systems and physicians. The Medicare Access and Children's Health Insurance Program Reauthorization Act (MACRA) has replaced the Medicare Sustainable Growth Rate (SGR) formula for physician payment, and physicians can retain bonuses for achieving quality performance, reflected in an increase in the Medicare reimbursement rate (up to 4%). Clinicians are increasingly encouraged to participate in new models of care and advanced alternative payment models (APMs) and realize a 5% increase in Part B Medicare reimbursement. Publicly reported quality metrics may also be a condition for participation in health plans, maintenance of licensure, liability coverage, or inclusion in group practices. Quality reporting could be a very powerful lever for behavior change among providers, healthcare organizations, and consumers, reducing regional variation in Medicare spending, and forcing individual physicians to adhere to consensus guidelines and standards of care.

There is also very broad support regarding cost control. While healthcare inflation has been moderated since 2010,

there is evidence that healthcare costs are beginning to rise again. The value transformation of health care represents a paradigm shift. Early findings suggest that value-based purchasing has helped to moderate healthcare costs, but it only represents a small portion of the entire healthcare economy at this time. Health spending is projected to grow 1.2 percentage points faster than the gross domestic project (GDP) per year over 2016–2025; as a result, the health share of GDP is expected to rise from 17.8% in 2015 to 19.9% by 2025 [2]. If value-based transformation cannot control medical inflation and keep the rate of increase of healthcare expenditures to less than the GDP, there is strong support for further price cutting for hospitals, pharmaceuticals, and physicians [3]. In order to accelerate the adoption of advanced APMs, the Medicare Payment Advisory Commission (MedPAC) could also create an alternative Voluntary Value Program to encourage clinicians to form voluntary groups and reward them for population-based outcomes from a pool of fee schedule dollars withheld from Medicare providers. Federal reductions in Medicare funding could further affect prices paid to providers as well as suppliers.

It is also possible that individuals are taking more responsibility for their health, as insurance premiums have increased for all. Part of this is due to shifting of cost to consumers by insurance companies who now have their profits limited—tied to an 85% loss ratio (limit of 15% overhead and profit) for larger firms. The loss ratio is 80% for smaller insurers. Increased healthcare benefits (minimum mandatory benefits) have also contributed to increased insurance costs. Employers providing health insurance to workers are also shifting some of this cost to consumers. Consumers will want to reduce their premiums, therefore popularizing higher deductible plans. The increased visibility of healthcare costs now shared directly with the consumer may be contributing to increased personal responsibility for health and health behaviors, and this may help moderate future healthcare costs.

Challenges Ahead

Trainees aspiring to specialty-oriented careers are still functioning in a fee-for-service (FFS) model and mindset. But the planned demise of FFS is real and medical societies and individual practitioners will have difficulty adopting new models and changing from traditional operating procedures. Medical societies and educators need to help. The focus on quality and cost control is likely to be permanent features of the healthcare landscape. FFS is being phased out as practitioners are encouraged to join advanced APMs.

There is an immediate need for the healthcare system to respond and change. Starting in 2018 CMS will calculate cost measures using claims data at the level of the provider or group and evaluations will occur on measures relevant to these practices. Provider choices of quality measures will have to be strategic and specialty appropriate. Global healthcare system budgeting and value-based purchasing and stimulation of new healthcare models will be emphasized. Cost-avoidance strategies are becoming the new cost centers.

Adapting to a new healthcare system will involve individual and health system providers, educators, and increased patient-centered personal health decisions and responsibility. Geriatrics and care of older adults will have a profound effect on the shaping of the healthcare system of the future [4]. We need to change the conversation to promote optimal aging and change the culture of how we as a society regard aging and what it means to grow older. We need to create an inclusive, intergenerational society which accepts continuing to live and age in a positive light. There is no controversy about the fact that society is indeed aging and our healthcare system must respond appropriately [5]. New models of care including team-based health care, global budgeting, and bundling of services are expected to increase in importance and acceptance. These changes will dramatically influ-

ence medical education as we prepare new practitioners for a new healthcare environment. Oversight and public accountability of healthcare training are also expected to increase as society needs physicians and health systems which are able to meet consumer needs in a new value-based environment.

Response to Change

The complexity of the issues posed by changes in health care and medicine that our society needs to address is so enormous that no sector can devise solutions on its own. Some have argued that the changes required are so profound that a single-payer health system may be required to facilitate this process. A single-payer system is consistent with value-based purchasing and is one means to achieve universal healthcare coverage. A review of single-payer models for the United States shows many heterogeneous proposals to achieve this end, utilizing both public and private resources [6].

Professional providers and health systems interact with the health insurance industry providing managed care products in a preferred provider relationship. This could cause providers to act in unacceptable ways, creating moral hazards. While patient-centered care causes the physician to provide services in consideration of patient needs, managed care on the other hand may cause providers to deny services on the basis of cost and best interest of the third-party payer or the provider. Currently there is little oversight and the current legal system is inadequate when applied to the relationship between providers, third-party payers, and consumers. We need to act with care when designing utilization review programs and giving financial incentives to providers to ensure that choices made are in the best interest of the patient.

Big data holds the potential to analyze large amounts of health-related information to apply to patient care with the promise for improving care by better informing care decisions, increasing treatment safety, and more accurately evaluating treatment effectiveness. Big data analytics has historically been less utilized in health care compared to other industries due to confidentiality concerns, but this is changing. While appropriate statistical methods will be needed to control for potential bias in interpreting data sets collected for purposes other than the specific clinical and process questions posed, the benefit of big data to enhance the patient-centered approach to care is enormous. Big data can identify valuable pathways to identify new therapies and approaches to help patients achieve better outcomes. It can provide data to personalize interventions, monitor for complications, communicate with patients, and information resources for precision medicine. Precision medicine aims to link large data sets related to prognosis, treatments, risk, and monitoring of progress for individual patients to help clinicians personalize care. Big data analytics can improve population management and follow health trends, as well as evaluate models of care. Harnessing these capabilities can advance continuous clinical learning and research which draws on real-world evidence. To maximize this potential, we must partner with patients and families to support the sharing of health information.

Harmonization of performance and quality measures among healthcare professionals, healthcare organizations, health plans, and CMS through public reporting can speed the implementation of new practices and create clear expectations of practice behavior, improving standards of care. Standards of care can be an important lever for rapid integration of evidence and new clinical standards into practice. This provides a great opportunity for clinical leadership. We need committed physician leaders who are able to coach colleagues, evaluate outcome data, and guide practice changes [7].

The electronic health record (EHR), intended for improved patient care, is often criticized as having unintended

Table 10.1 Novel metrics for an improved EHR [8]

- Work after work—this measures EHR logons and tasks during evenings, weekends, and vacations
- Click counts—this counts the number of clicks needed to accomplish common workflow tasks and is a key measure of usability
- Teamwork-related measures—tracking a ratio of staff entered to the physician-entered EHR tasks to identify how well tasks are distributed to the appropriate team members
- Being present—this metric tracks the proportion of time spent with the patient versus EHR documentation during a visit
- Fair pay—these metrics track generally uncompensated work such as managing messages and e-mails, providing medication refills, as well as managing patient-generated health data to highlight EHR-related administrative work that creates value for patient care
- Regulatory balance—these measures relate to pay for performance-related EHR activities or billing-related documentation

consequences impairing practice efficiency. In order to provide adequate support and usable EHR tools, novel metrics have been proposed to capture the facilitators of and impediments to patient care [8]. These proposed new metrics are displayed in Table 10.1.

Improving usability of EHR tasks which complete for physician attention during the visit is important for professional satisfaction as well as for improved patient care. Measurement of EHR metrics is important to the provider to help drive patient-centered improvements and future modifications of the EHR.

The shift in healthcare culture toward value-based care requires thinking outside of the FFS box. Using an Agency for Healthcare Research and Quality (AHRQ) algorithm to identify potentially preventable hospitalizations and ED visits for 2012 Medicare data, some 4.8% of Medicare spending was found to be potentially preventable. Of this, 73.8% was

incurred by high-cost patients. Despite making up only 4% of the Medicare population, high-cost, frail elderly patients accounted for 43.9% of potentially preventable spending [9]. As organizations take on financial risk for patients, it is important to provide high-value care for these high-need, high-cost older adults. It is important to better understand this diverse population, identify evidence-based programs that offer higher quality, integrated care at lower cost, and intensify both incentives and support for clinicians to adopt and continue to improve higher value methods of managing high-need high-cost populations [10, 11].

Educators for future healthcare professionals have a huge task ahead to prepare them for effective practice models in a transformed value-based healthcare system. Future clinicians need to be able to respond professionally to new care models and management of health-related data. Virtual care, new team-based models of care, and value-based purchasing will produce new healthcare professional roles and behavior [12]. We need to revitalize primary care and enhance appreciation for the critical and complex role it plays. We must implement initiatives for clinicians to build patient-centered skill sets for engagement, shared decision-making, and better definitions of value reflecting the patient perspective while determining appropriate measures for evaluation of those skills. There needs to be greater oversight of healthcare training focused on societal needs.

It is critical to prepare the workforce to deliver team-based, comprehensive health care. We need to develop training and certification opportunities focusing on the treatment and social support needs of high-need patients, including care coordination. Credentialing programs for nontraditional healthcare workers such as community health workers and peer support providers should also be developed [13].

Facility with quality improvement is critical to future practitioners as they set standards for practice. The ability to integrate data into practice and to continue to refresh the clinical approach is a highly desirable skill. Future practitioners need tools to speed the introduction and evaluation of innovations into practice.

Patients must be informed regarding healthcare advances including the appropriate use, value, potential harms, and potential financial obligations. We need to equip patients and families as partners and stakeholders. They need to be heard, understood, and involved in their care. Personal health choices and responsibility are enhanced with value-based healthcare transformation, risk sharing, and scope of personal responsibility for health care.

Patient decision aides include printed booklets, videos, and Web-based tools created for patients that provide evidence-based information on the options available for a specific health condition including benefits and harms for each option. They allow patients to consider what is important and permit them to establish their preferred screening or treatment options. Patient decision aides help provide shared decision-making whereby clinicians and patients work together to understand the patient's situation and better determine how best to address it. Systematic reviews of shared decision-making found that patient decision aides are associated with improved decision quality and decision-making processes without worse patient or healthcare outcomes. However, little is known about the effect of patient decision aides on patient competence with decision-making, cost, resource use, or adherence to selected options [14, 15]. Additional study is needed to know the extent to which these tools improve the patient's sense of intellectual, emotional, and practical involvement in their own care, and encourage new ways to promote patient involvement in making important healthcare decisions. We also need to improve the quality of communication between healthcare professionals and patients living with serious illness through a broad range of research covering communication skills, tools, patient education, and models of care [16]. New EHR products can provide printed patient educational materials pertinent to the patients' encounter as part of the visit summary. Patient EHR portals may enhance communication and patient engagement in their own care.

More patient engagement, home monitoring of health status, and increased participation in one's own care could help

maintain population health status. Appropriate medical utilization could decrease in the presence of barriers such as limited access, financial constraints, and provider availability.

Patients must be engaged and provided opportunity to give input for patient-centered products, services, and models of care. Quality measures should include measures that truly capture what patients care about. While consensus among experts, advocacy groups, payers, and consumers regarding what constitutes high-value measures and how best to measure them may be difficult to achieve, a small number of high-value measures would help force hospitals and providers to become flexible and truly patient centered by meeting the varying needs and values of patients [17].

Patients also need to be engaged so that outcomes measure what matters most. Capturing overall caregiver and patient experience and perceived quality of care is of great importance for every patient and every care setting. The joint American Academy of Hospice and Palliative Medicine and the Hospice and Palliative Nurses Association's Measuring What Matters (MWM) initiative identified a number of quality indicators for hospice and palliative care practice, including treatment preferences, care consistent with documented care preferences, global measure of patient experience, and respect for cultural aspects of care [18]. Measuring what matters most is critical to understanding quality by measuring what is important to patients, families, and also providers. We greatly need identification, implementation, and tracking of metrics that can be used to inform quality of processes, which are validated in different populations and practice settings, in order to strengthen the linkages between these process measures and patient and caregiver outcomes [19].

We need to know what patients are willing to contribute to their health in the forms of copayments and deductibles, traditionally considered to be barriers to healthcare access. A recent study of cost sharing and utilization of home care services among Medicare advantage enrollees found no evidence that imposing copayments reduces the use of home health services among older adults. More intensive use of

home health services was associated with increased rates of disenrollment from Medicare advantage plans, although the duration of home care was similar among traditional to care and Medicare advantage enrollees [20].

Electronic health data are expanding to now include patient-reported outcomes, patient-generated health data, and social determinants of health. Enabling access to personal health data may benefit patients as well as healthcare professionals and increase patient engagement, data accuracy, and perhaps health outcomes. Enhancements to the EHR to improve interoperability will include (1) standardized common data elements enabling the sharing and emerging of health data from multiple sources, (2) patient encounter data receipts automatically pushed to the patient's digital health record, and (3) a data use agreement (DUA) between patients and healthcare organizations enabling individuals to control their longitudinal electronic health record [21].

Looking to the Future

We should accept the advent of value-based healthcare transformation and appropriately adapt and accommodate relevant business, education, and practice models. The promise of an improved healthcare experience, quality of care, and cost control is real. Health care then becomes a new partnership with patients as key stakeholders.

References

1. Kaiser Family Foundation poll: Future of the Affordable Care Act. http://kff.org/health-reform/report/kaiser-health-tracking-poll-late-april-2017-the-future-of-the-aca-and-health-care-the-budget/. Accessed 17 Nov 2017.
2. Congressional Budget Office. Repealing the individual health insurance mandate: an updated estimate, November 8, 2017. https://www.cbo.gov/publication/53300. Accessed 21 Dec 2017.

3. Cutler DM. Rising costs mean more rough times ahead. JAMA. 2107;318:508–9.
4. Tinetti M. Mainstream or extinction: can defining who we are save geriatrics? J Am Geriatr Soc. 2016;64:1400–4.
5. Jenkins JA. Disrupt Aging. A bold new path to living your best life at every age. New York: Public Affairs Publishers; 2016.
6. Liu J, Brook RH. What is single-payer healthcare. A review of the definitions and proposals in the US. J Gen Int Med. 2017;32:822–31.
7. Rosenblatt M, Austin CP, Boutin M, et al. Innovation in development, regulatory review, and use of clinical advances: a vital direction for health and health care. Washington, DC: National Academy of Medicine; 2016.
8. DiAngi YT, Lee TC, Sinsky CA, Bohman BD, Sharp CD. Novel metrics for improving professional fulfillment. Ann Intern Med. 2017;167:740–1.
9. Figueroa JF, Joynt Maddox KE, Beaulieu N, Wild RC, Jha AK. Concentration of potentially preventable spending among high-cost of Medicare subpopulations. Ann Intern Med. 2017;167:706–13.
10. Leff B, Milstein A. Possibilities beyond analysis of a fee-for-service database and clinician mindset. Ann Intern Med. 2017;167:746–7.
11. Blumenthal D, Chernof B, Fulmer T, Lumpkin J, Selberg J. Caring for high-need, high-cost patients–an urgent priority. N Engl J Med. 2016;375:909–11.
12. Duval JF, Opas LM, Nasca TJ, et al. Envisioning the sponsoring institution of the future: report of the SI2025 task force. J Grad Med Ed. 2017;9(6 suppl 1):11–57.
13. Thomas-Henkel C, Hamblin A, Hendricks T. Opportunities to improve models of care for people with complex needs. Princeton, NJ: Robert Wood Johnson Foundation & Center for Health Care Strategies; 2015.
14. Stacey D, Legare F, Lewis K, et al. Decision aides for people facing health treatment or screening decisions. Cochrane Database Syst Rev. 2017;4:CD0001431.
15. Shay LA, Lafata JE. What is the evidence? A systematic review of shared decision making and patient outcomes. Med Decision Making. 2015;35:114–31.
16. Tulsky JA, Beach MC, Butow PH, et al. A research agenda for communication between healthcare professionals and patients living with serious illness. JAMA Intern Med. 2017;117:1361–6.

17. Jha AK. Payment power to the patients. JAMA. 2017;318:18–9.
18. Dy SM, Kiley KB, Ast K, et al. Measuring what matters: top-ranked quality indicators for hospice and palliative care from the American Academy of Hospice and Palliative Medicine and Hospice and Palliative Nurses Association. JPSM. 2015;49:773–81.
19. Unroe KT, Ast K, Chuang E, Schulman-Green D, Gramling R, AAHPM Research Committee Writing Group. The implementation of measuring what matters in research and practice: series commentary. JPSM. 2017;54:772–5.
20. Li Q, Keohane LM, Lee Y, Trivedi AN. Association of cost sharing with use of home health services among Medicare advantage enrollees. JAMA Intern Med. 2017;177:1012–8.
21. Mikk KA, Sleeper HA, Topol EJ. The pathway to patient data ownership and better health. JAMA. 2017;318:1433–4.