Effective Interdisciplinary Teams

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Learning Objectives
At the end of this chapter, readers should be able to:

- Explain how human resources management intersects with and contributes to the achievement of an organization's mission and goals.
- Discuss the activities necessary to recruit personnel for and build staff for clinical informatics organizations.
- Assess how job applicants match the requirements of a particular job description.
- Determine when forming a team to perform work that is useful and appropriate, identify the factors that contribute to (or hinder) team effectiveness, and apply strategies to address those factors.
- Apply a structured, 7-step process for planning, conducting, and managing meetings in support of organizational objectives.
- Describe some "out-of-the-box" ideas to create productive and efficient meetings.

Practice Domains: Tasks, Knowledge, and Skills

- K113. Consensus building, collaboration, and conflict management
- K120. Communication strategies, including one-on-one, presentation to groups, and asynchronous communication
- K121. Effective communication programs to support and sustain systems implementation
- K124. Conflict management strategies, methods, and techniques
- K137. Principles, models, and methods for building and managing effective interdisciplinary teams
- K138. Team productivity and effectiveness (e.g., articulating team goals, defining rules of operation, clarifying individual roles, team management, identifying and addressing challenges)
- K139. Group management processes (e.g., nominal group, consensus mapping, Delphi method)

Clinical Vignette
You have recently been hired as the first Chief Medical Information Officer at Kensington Community Hospital in Philadelphia, a 550-bed facility that offers emergency, primary, and specialty care, inpatient and outpatient services, and prevention and rehabilitation. For many years, the hospital has used various systems to serve its healthcare information technology (IT) needs. Registration, admission, discharge and transfer; billing; laboratory; and medication ordering functions are provided by McKesson; scheduling and a patient portal by RelayHealth; outpatient electronic medical records by eClinicalWorks; and nursing documentation by ePowerDoc. The computer-based physician order entry system in inpatient and outpatient settings was

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custom-written by a local software company working with Kensington for a long time. In addition, the hospital uses about 25 other applications in areas such as radiology and diagnostic imaging, several specialties, and its rehabilitation service.

Recently, the CEO and her executive team decided to move to a comprehensive, vendor-based system. Maintaining the current suite of disparate, non-integrated applications from many vendors had put undue strain on the organization and its IT support. Managing the data center with its growing number of dedicated and virtual servers, establishing the many, mainly HL7-based, interfaces among the applications, and troubleshooting problems had become an unsustainable and expensive endeavor. The IT staff alone had grown from 30 people in 2007 to over 80 in 2012. In addition, end-users complained about having to log into multiple systems for common tasks and that very often, the same information in different systems was out of sync.

Since you just completed your clinical informatics fellowship and passed your board certification, the hospital is placing all its hopes for a renewal of its health IT infrastructure and processes on you. After six months on the job, you have, together with the hospital senior administrative team, gone through a vendor identification and selection process that resulted in Kensington selecting Cerner as its future system. Due to the timing of the next stage of meaningful use, you now have 16 months to implement the fully functional system in your hospital. You also would like to phase out most standalone applications and replace their functions with Cerner or compatible packages.

One of your immediate priorities is to constitute a hospital-wide implementation team composed of clinical, administrative, and technical personnel to manage the transition. In addition, you are enlisting 25 consultants from Cerner for the implementation period and sometime after that. In total, you anticipate that about 150 people will be involved in implementing the new system.

Here are some questions for you to answer:

- What types of people, as well as how many, should be on your hospital-wide implementation team? How would you organize your team at the strategic, tactical, and operational levels?
- Many of your IT employees have been with Kensington for a long time and have rather idiosyncratic and, to a degree, outdated technical skills. How can you leverage them for the new implementation, and what opportunities and challenges do you face?
- While Kensington is in a somewhat economically depressed area of Philadelphia, the Philadelphia economy is booming. Competition for skilled IT personnel in healthcare is fierce. What can you do to ensure you can hire enough skilled IT staff?

Introduction

Clinical informatics is not a technical discipline; it is a sociotechnical profession. It combines technical knowledge with procedural, organizational, and personnel assets to achieve its objectives successfully. Therefore, clinical informaticists must recruit qualified people, organize them into high-functioning teams, and use meetings to effectively orchestrate operational efforts within the clinical enterprise. The chapter begins with developing a human resource plan, defining jobs and job descriptions, recruiting and hiring employees, developing, evaluating, and compensating them, and, finally, maintaining a highly productive workforce.

Next, the chapter describes how to leverage teams and teamwork because more than one person performs clinical informatics in the organization. The chapter discusses forming teams, defining a team charter and ground rules for the work, and aligning team members and task structure for maximum effect. The chapter also covers how to manage teams for maximum performance and how to handle inevitable conflicts. Key tenets for highly functioning teams include empowering members, defining responsibilities clearly, communicating transparently and effectively, and adapting rapidly.

Finally, the chapter discusses how best to use meetings for maximum effect. While holding meetings is one of the most hallowed traditions in organizations, meetings are also among the most reviled business activities. Effective meetings require thorough planning, conscientious execution, and diligent follow-up. If a meeting needs to be held, attendees need to know the purpose of the meeting, how they can contribute maximally, and the action items resulting from the meeting. Holding meetings is an expensive but essential activity. Therefore, they should be treated with the attention they deserve.

Understanding the material in this chapter should help you leverage personnel, teams, and meetings optimally to pursue your clinical informatics objectives.

Human Resources Organization Planning and Development

In the current knowledge era, and especially in the informatics industry, intellectual capital is one of the most important assets of an organization. **Intellectual capital** is the sum of the unique knowledge and skills that employees contribute to an organization. The importance of intellectual capital does not only manifest itself at the level of the individual but also in teams. Teams can synergize and leverage individual intellectual capital into high collective contributions and performance toward a goal.

Employees have evolved from being "a" resource in production in the industrial economy to "the" resource in the knowledge economy. Managing human capital for high performance and results has become one of the most differentiating competitive advantages today.

However, clinical informatics is not just a knowledge-centered activity but also a socio-technical activity. Bringing together, developing, and challenging the right people and teams is a key factor in supporting the vision and goals of clinical informatics.

Therefore, clinical informatics must partner effectively and strategically with talent management professionals who focus on recruitment, retention, and development. Do not treat your human resources (HR) department as a "service" used to "procure" workers when needed. Instead, engage all relevant parties, including your informatics organization and its stakeholders, as well as talent management professionals, in the process of seeking, acquiring, and managing talent. The earlier you get ahead of your organizational challenges by hiring the right talent and engaging them in your long-term goals, the faster collective efforts multiply on themselves, which increases capacity and ability to achieve beyond any one person's potential.

The Human Resources Process

Figure 20.1 shows a general overview of the human resources process, which we will use to map our discussion.

- **HR Planning**: Be clear about your goals, timelines, process, and stakeholders. Once you have a plan, you can go about determining what kind of staffing you need.

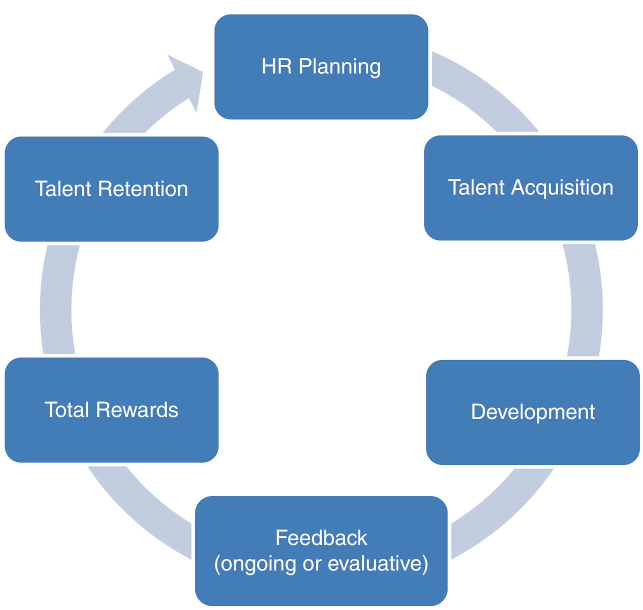

Fig. 20.1 General overview of the human resources process

- **Talent Acquisition**: With your plan in hand, you can set out to staff your organization. Talent Acquisition is a set of activities to attract and select individuals for positions to facilitate organizational goals, balancing short-term against long-term objectives.
- **Development**: Once you have staff, you can't just sit back and watch the work being done. While you strive to hire staff with the right qualifications based on your needs, you also have to make sure that employees develop continually. Help your employees acquire and maintain the skills and knowledge needed for higher productivity, better efficiency, or their next assignment. An essential part of development is continually assessing successes and failures and learning from them. Professional know-how is developed most rapidly through repeated exposure to complex, real-world problems.
- **Feedback**: While it is common to focus on results and solving problems and ignore the individual contribution of skills and knowledge to this effort, it is very important to provide ongoing feedback and evaluation. You need to identify and share how well each individual applies their knowledge, skills, and experience to fulfill the requirements of their position. The most effective feedback programs focus first and foremost on coaching and development. Feedback programs can include informal channels like coaching and regular informal sessions and formal channels like designated mentor programs and regular performance appraisals. Coaching, feedback, and mentoring are designed to help employees improve and develop their knowledge and skills. Performance appraisals are a formal process that usually includes numeric ratings and are often used to determine pay increases. All types of feedback, both for reinforcement and improvement, are important in the development of employees.
- **Total Rewards**: Total reward is a term used to define the entire package of salary and benefits offered to employees. A total rewards package includes:
  - Salary
  - Bonuses (if applicable)
  - Benefits (medical, dental, vision, etc.)
  - Paid Time Off (vacation, sick time, etc.)
  - Retirement Plans (401k, 403b, etc.)
  - Other ancillary benefits (parking, pet insurance, wellness incentives, disability insurance, life insurance, tuition assistance, etc.)

  Many people focus on salary, but it is important to recognize the value of other non-salary benefits provided to an employee as part of their total rewards package. Initially, salary is set based on various factors, such as position requirements, candidate qualifications, external market value, and internal equity considerations. External market value is determined by supply and demand for the skills required for the role, usually within your geographic location. However, as more organizations embrace remote work, the competition for talent is beginning to blur the lines related to geographic location. Internal equity is how roles like work, responsibilities, and impact are balanced against similar roles in the organization. Generally, salary should reflect performance evaluations, external market trends, internal equity considerations, and available funding. As individuals apply knowledge and produce results, they become more effective, produce higher-value results for the organization and, as a result, position themselves for higher salaries. Rewarding top performers is key to increasing productivity and greater value for your investment. Ultimately, the goal is to create as many winning equations as possible. The organization must get a return on investment in the talent and vice versa. This is rarely just about salary.

- **Talent Retention**: Maintaining the workforce is a constant process of promotion, reassignment, recruitment, and termination to make sure your workforce is supporting your staffing plan. Keeping a team that has the right mix of skills, experience, and education is key.

Human Resources Planning

Few managerial decisions are as important as hiring the right talent. The quality and capabilities of the people you choose to bring on to your team will greatly impact its success—as well as yours as a manager. Maximizing staff contributions to the organizational mission requires a solid HR plan. Given your goals, what kind of people do you need to achieve them? How do various staff roles complement each other for maximum effect? How do expected staff transitions, such as retirement, affect your talent management needs? Having a solid HR plan in place prepares you well for creating jobs and recruiting for them.

Jobs

So, how do you create a job? The first step is to complete a job analysis. **Job analysis** is the systematic study of a job to determine what tasks and responsibilities are expected, the qualifications required to successfully meet those expectations, the conditions under which the work is performed, and who the position is accountable to. The following aspects need to be identified:

- **Purpose of the position**: a two to three sentence explanation of the primary role or function of this position and how it relates to other positions
- **Major duties and responsibilities**: a list of the primary deliverables and responsibilities
- **Job specifications/qualifications**: These include the knowledge, skills, and abilities required for a person to have a reasonable chance of successfully performing the job. Job specifications should list the minimum requirements for the role as well as preferred requirements. Minimum selection criteria should **not** include knowledge, skills, and experience that are not directly required to do the job successfully and should generally not include skills or experience that can be taught in a relatively short time frame.

Job analysis is a time-consuming and demanding task. It can be difficult to show statistically the extent to which a job analysis is valid or reliable, particularly as jobs get more complex. For best results, focus on the following:

- obtain information directly from the job incumbent if possible
- collect data from multiple incumbents, managers, and other stakeholders with knowledge of the role
- select a technique that allows information to be obtained, summarized, and processed with minimal effort. For example, coded, concise data are easier to process than narrative information
- select a technique that is easily updated to avoid repeating the entire process from the beginning

Your job analysis provides the information required to create a document called a job description.

Developing Job Descriptions

A **job description** is an important tool serving a variety of functions. In addition to supporting recruitment and selection, it facilitates training, safety, compensation, performance evaluation, clarification of handoffs, deliverables, and scope of responsibility. It can support a vision for career paths and the transition of workflows and functions, allowing for effective change management in line with the organization's evolving needs.

Formats vary greatly but typically contain the following elements:

- **Title:** The title often becomes the primary identity of a position. Titles alone can be a very effective management and development tool. Choosing titles that align with industry titles can also be important for external benchmarking purposes.
- **Organizational Relationship**: who the position reports to and how the position relates to various functional areas of the organization
- **Position Purpose**: a few sentences describing the primary function of the position

- **FLSA Status**: FLSA (Fair Labor Standards Act) status determines if the job can be exempted from overtime pay. For a job to be exempted from overtime pay for work over 40 h in a workweek, it must meet the qualifications outlined in federal wage and hour laws. A position classified as "exempt" (sometimes listed as salaried) does not require overtime pay for working more than 40 h in a workweek. If a position does not meet the federal requirements to be exempt, it is classified as "nonexempt" (sometimes listed as hourly), which means an employee must be paid overtime for hours worked over 40 h in a pay week. To be classified as exempt, an employee must meet all the requirements of the FLSA duties test as an exempt employee and meet a minimum salary test. Learn more about FLSA status by going to www.dol.gov/whd/.
- **Position Essential Duties and Responsibilities**: These are the essential functions and responsibilities of the job. This may also include nonessential functions which are desired but not necessary aspects of the job. Appropriately documenting the essential duties and responsibilities of the job is critical to ensure the FLSA status is set appropriately.
- **Qualifications**: A statement of skills, abilities, education, and previous work experience as well as desired skills that would be beneficial. This is typically a bulleted list.
- **Physical Demands and Working Conditions**: The job's environment and where it is performed, especially if in any unpleasant conditions. Lifting and standing requirements are often listed in this section. Any exposure to hazardous materials or conditions is also listed.

Sample Job Description

JOB DESCRIPTION

POSITION TITLE: Director, Business & Clinical Intelligence
SUPERVISOR'S TITLE: Executive Director, Decision Support & Analytics **FLSA STATUS:** Exempt

Position Purpose

The Director, Business & Clinical Intelligence, is responsible for developing and leading the business and clinical intelligence teams and enabling healthcare innovation through information delivery, self-service enablement, and visual analysis tool development. These responsibilities will be achieved by creating and maintaining common business intelligence (BI) framework, end-user training, and developing big data and analytics solutions.

Position Essential Duties and Responsibilities

To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential duties.

- Participate in the Decision Support & Analytics leadership team, with the ability and desire to assume responsibility beyond the immediate role
- Lead the business and clinical intelligence teams, as well as provide support for research and health plan analytics
- Work with the enterprise architecture group to develop and maintain the system-wide business intelligence and analytics framework
- Support data-driven decision-making, and apply continuous improvement and the use of key performance metrics to improve existing processes
- Collaborate with all levels of senior leadership, providing coaching, development, and educational programs as needed. Facilitate the development and growth of leadership within a comprehensive and geographically dispersed integrated healthcare system.
- Cultivate an environment of collaboration, responsibility, and accountability, resulting in highly successful outcomes that the institution becomes the benchmark. Instill and inspire accountability and empowerment as part of the overall patient-focused, performance-based culture.

Qualification Requirements

To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential duties.

Education and/or Experience

- MS or Ph.D. degree in computer science, information science, big data, or a closely related field is required.
- At least three years of practical experience with managing and analyzing large complex healthcare data sets is required.
- Experience must also include standard business intelligence and analytics tools, such as Tableau and Qlikview.

- significant experience in information systems, analysis, and quality improvement
- familiarity with clinical operations & healthcare information management, and the healthcare reimbursement environment
- strong matrix leadership skills (inspiring, problem solving, communication across multiple organizations, executing)
- a proven leader of people, able to recruit, develop and mentor a top-notch team capable of supporting future growth
- knowledge of industry issues
- adherence to system Leadership Competencies: Commitment to Purpose, Setting Healthcare Business Strategy, Leading Change, Driving for Results, Emotional Intelligence, Executive Disposition, Aligning Performance for Success, Coaching and Talent Development, Building Partnerships and Collaboration, and Team Leadership

Language Skills

- superior ability to communicate (in both verbal and written form) both abstract and concrete ideas and results to individuals with highly variable technical backgrounds
- ability to effectively present information in one-on-one and group situations to customers, clients, and other employees of the organization
- able to work and effectively communicate in a "team setting" as well as independently with minimum direction, use time efficiently, and problem-solve

Reasoning Ability

- able to translate business needs and requirements into appropriate analyses and visualizations
- superior capability to conduct data manipulation and data analysis

Technical/Computer Skills

- knowledge of relational and no-SQL databases
- experience with appropriate ETL and data management procedures to prepare data for analyses
- proficiency in conceptualizing and implementing analyses and visualizations in Tableau and/or Qlikview
- ability to operate office equipment, including copiers, fax machines, and phones

Physical Demands

The physical demands described here represent those that must be met by an employee to successfully perform the essential duties of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential duties.

- This position requires the physical ability to work 40 h per week, including the flexibility to work extended hours as necessary to meet organizational needs.
- This position requires the ability to sit and/or stand for extended periods.
- This position requires the manual dexterity to operate a keyboard and pointing device.
- This position requires the ability to travel around system facilities or to outside meetings as necessary.
- This position requires the ability to perform focused work with close attention to detail.
- This position requires excellent speaking, writing, and listening skills.
- This position requires some physical activity, such as pushing, pulling, lifting, carrying, and moving (up to 20 pounds).

Work Environment

The work environment characteristics described here represent those an employee encounters while performing this job's essential duties. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential duties.

- This work takes place in both an office environment and a healthcare environment for meetings, interactions with customers, and training purposes.
- This work is fast-paced and deadline-oriented, and requires a flexible work schedule.
- The use of a computer, business office equipment, and other machinery is necessary.
- This position requires working as a team member and also independently.
- This position requires working and interacting with others, both in person and through phone, email, and written correspondence.

There is a current trend towards broad descriptions without specific details regarding tasks assigned to specific positions. This allows the transition of tasks within the same job title or career path and facilitates effective internal equity management without constantly updating individual job descriptions.

Staffing

Attracting top talent is a competitive proposition. Top talent working in your organization attracts and fosters more top talent. The goal of your **recruitment strategy** should be to entice a large pool of qualified candidates. Deciding whether to recruit internally or externally has its advantages and disadvantages (see Table 20.1). How feasible internal recruiting depends somewhat on your organization (size, job diversity, etc.) and the availability of appropriate talent pools. Many experts advocate for a balance of the two.

Ultimately, the appropriateness of recruiting internally or externally depends on the organization's needs, capacity for training and development, culture, and specific project demands. It also depends on where the more talented candidate can be found.

Internal Recruiting Sources

Filling job vacancies through promotions and transfers can capitalize on the organization's investment in recruiting and developing its existing talent. Effective sources for internal recruitment include job postings, skill tracking systems, and employee referrals.

Table 20.1 Merits and drawbacks to recruiting internally and externally

	Recruiting internally	Recruiting externally
Advantages	• motivation for learning and development • reward for superior work of current employees • cost-effective • can improve morale • can assess known past performance • can result in successive promotions • reduced onboarding time as an incumbent is already familiar with the organization	brings in new ideas into the organization • helps organizations get needed competencies • provides cross-industry insights • may reduce training costs
Disadvantages	• can produce organizational inbreeding; candidates may have a limited perspective. • may place a heavy burden on training and development • may cause political infighting for promotions	• may result in misplacements • increases recruitment costs • may cause internal morale problems • requires longer orientation or acclimation time

External Recruiting Sources

The use of external labor sources varies with various factors, such as the type of job, geographic locality, state of the economy, and others. In periods of high unemployment, an adequate supply of qualified candidates can often be obtained through local advertising and networking. If unemployment is low, organizations may need to advertise more broadly, and seek assistance from sources such as employment agencies and search firms.

External supply or recruitment channels:

- advertisement
- employee referral
- headhunters/recruiting agencies
- Web
- social media including text, audio, video, images, podcasts, and online multimedia applications
- walk-in
- job fairs
- former good employees interested in returning from retirement or after life changes
- previous applicants
- trade and professional organizations

Networking

Informal recruitment networks often yield a level of professional, social, and personal compatibility between organizations and applicants that is difficult to obtain through general advertising. Sharing your staffing needs at lunches, conferences, and professional organizations can yield quality talent. You can exploit informal recruitment through social networks such as Facebook, Twitter, and LinkedIn.

Diversity

Achieving greater diversity in the workplace has become a priority of many organizations—and clinical information system departments are no exception. Diversity is essential given the increasingly collaborative and team-based structure of modern organizations. The evidence is clear that organizations that can effectively recruit and manage a diverse workforce have a clear competitive advantage. Therefore, your talent acquisition strategy needs to include specific steps for achieving and maintaining diversity.

Employment Branding

Employment branding is the process of positioning an organization as an "employer of choice" in the labor market. A good employment brand creates an image that draws and retains the right talent. An organization's value proposition is the foundation of employment branding. Generally speaking, an organization's value proposition is the value that an organization can deliver to customers and other constituent groups within and outside the organization.

Recruitment Effectiveness

Evaluating the success of an organization's recruitment efforts is crucial. Without metrics and assessment, organizations tend to recruit the way they always have, possibly missing out on improvements they could make. Table 20.2 shows some useful short- and long-term metrics.

Table 20.2 Selected short- and long-term metrics for recruitment effectiveness

Time horizon	Criteria
Short-term	• average days to fill a position • acceptance rates • cost per applicant hired • ratio of qualified to unqualified candidates • EEO and Affirmation Action program implications
Long-term	• performance of hires • turnover • absenteeism per hire • training costs

Selection Process

Selection is the process of identifying the most suitable candidate for a position. The process involves a series of filters designed to narrow the field of candidates progressively down to a select few. At each stage, more information is gathered so that prospective candidates can be matched with the position's requirements.

Step 1: Analyzing Application Forms

Applicants typically use resumes to portray themselves in the best light given a particular job opportunity. Application forms, however, tend to be more structured and complete than resumes, and require the applicant to attest to the integrity of the information. If employees are found to have lied on their application form, they can be terminated for falsification of information. The organization's HR function will often review applications to ensure they meet all minimum qualifications for the position before they are eligible for consideration.

Step 2: Prescreen Phone Call

A verbal conversation can be helpful and efficient in clarifying information. In a few minutes, an interviewer can ascertain the candidate's background, characteristics of interest, and availability. It is also an opportunity to describe the job in greater detail so that both parties can determine whether continued interest in the position is warranted. The organization should keep applicants informed of their status and avoid significant time lapses between communications whenever possible.

Step 3: Selection Interviews

Selection interviews are intended to allow the interviewer to probe areas of interest to determine how well the candidate meets the position's needs. Unstructured interviews typically have relatively low reproducibility and validity. While structured interviews are better, semi-structured interviews are the most common. The interviewer uses a set of prepared questions as a guide but explores and focuses on questions as needed.

Situational interview questions are questions designed to elicit stories and examples from the applicant's experience that demonstrate the applicant's skills and qualifications. Hypothetical questions can also be used to learn how a potential employee might react in a given situation.

Both situational and hypothetical questions are valuable because they do not have canned answers and require an applicant to think on the spot. The goal of these questions is to predict future behavior based on the application of prior experience.

The following are helpful techniques for interviews:

- **Plan for the interview.** Be familiar with the job requirements to be able to assess how the candidate matches them. Review the candidate's application before the interview.
- **Establish and maintain rapport.** Try to create an environment where the candidate feels as comfortable as possible and is more ready to provide honest and open answers.
- **Listen carefully.** You are trying to learn as much as possible about the candidate**.** The applicant should talk the majority of the time. Once you have determined they are a viable candidate, you can sell them on the position later. Be disciplined about asking the same questions of every candidate.
- **Observe nonverbal behavior**. Be aware of facial expressions, gestures, body positions, and look for inconsistencies between the candidate's verbal and nonverbal cues. While eye contact is sometimes considered a key indicator for truthful responses, it is important to recognize that cultural norms and neurodiversity traits impact lower eye contact behavior (and other nonverbal cues).
- **Ask questions**. Plan ahead and ask open, probing questions that encourage candidates to tell you as much as possible. Make sure you have a question that targets each critical success factor or qualification of the position you are trying to fill. Examples of open, probing questions include: "tell me about…" or "describe a time when…."

- **Provide realistic information.** At the end of the interview, provide the candidate with specific information about the job and the organization's philosophy and culture. Do not promise or predict outcomes. Offer enough time for candidates to ask questions. You can learn what is important to them and whether they have prepared for the interview. Realistic job previews help improve good matching between the candidate and the role.
- **Take notes**. Note-taking is strongly recommended to document the qualifications of the candidate. It is not necessary to ask permission. Documentation should only contain information relevant to the requirements for the position. Do not document non-job-related information, even if it is volunteered by the candidate (family status, religious or political affiliations, etc.).
- **Summarize.** Conclude the interview with a summary, telling the candidate what will happen next.

Step 4: Pre-Employment Tests

Some organizations test applicants before in-depth interviews, others afterward, and many do not test at all because of legal risks. Tests must be valid and reliable and measure job–related predictors. Pre-employment testing may involve the risk of litigation because the tests discriminate against minorities, the disabled, or other applicants if improperly conducted. Within the guidelines, care must be taken to comply with applicable federal employment laws such as the Civil Rights Act of 1964 and 1991, the Americans with Disabilities Act, and any state laws that restrict pre-employment tests. In 1978, the Equal Employment Opportunities Commission (EEOC) created guidelines to ensure that the knowledge gained from testing is applied with impartiality to protect underrepresented applicants from discriminatory employment procedures, even if the adverse impact was unintentional.

Pre-employment tests may be broadly categorized in the following manner:

- *Cognitive ability tests* measure individuals' verbal and mathematical skills, logic, reasoning, and reading comprehension abilities.
- *Personality tests* attempt to measure a person's social interaction skills and patterns of behavior.
- *Aptitude tests* measure the general ability or capacity to learn or acquire a new skill, such as software applications, programming languages, and healthcare terminology.
- *Honesty/integrity tests* measure an applicant's propensity toward undesirable behaviors such as lying, stealing, taking drugs, or abusing alcohol. Such tests have been criticized for their possible invasion of privacy and self-incrimination.

Step 5: Pre-Employment Checks

Assuming that the best indicator of future performance is an individual's past performance, it is important to check references carefully. Some states limit the use of certain types of pre-employment checks, so it is important to know how and when you may use them in the hiring process. Many HR departments conduct all relevant pre-employment checks before the candidate's start date in compliance with all regulations.

The following are common types of background checks:

- **Work reference.** Generally, the most informative references are those given by former and current supervisors who are likely to know the candidate's work and have observed the candidate performing a job similar to the one for which the candidate is applying. Always obtain permission from the applicant before contacting a reference. This can be included in the application form and/or provided upon request by the candidate.
- **Verification of academic credentials**. Employers can request copies of grade transcripts or verification that the applicant attended the educational institution listed on the application form.
- **Credit history checks**. Credit checks should only be conducted for positions of financial responsibility or for positions that involve handling significant amounts of currency or other valuables. It can be considered discriminatory toward women or minorities to conduct credit checks without a business reason.
- **Motor vehicle record checks**. Motor vehicle records are maintained by departments of motor vehicles in all 50 states for up to five years. These records contain moving violations, motor vehicle accidents where a police report was filed, revoked or suspended license, and driving while impaired. Motor vehicle checks should be conducted on candidates for positions requiring the use of a company-owned vehicle or personal vehicles required for the performance of the job.
- **Criminal background checks**. Checking the criminal record of candidates reduces the possibility of theft and embezzlement, and the risk of workplace violence.
- **Drug screening**. Drug screens are used to help ensure a drug-free workplace.

Step 6: Employment Offer

An employment offer should immediately follow the final decision to hire a candidate. It makes the hiring decision official and is formally communicated through an offer letter. Employment offers should be worded carefully. They should never include language that could imply an employment contract. Obtain standard language approved by HR and/or legal counsel. Set a reasonable acceptance deadline taking into consideration situations involving relocation or issues with higher-level positions.

The process we have described for staffing is very common in many organizations. However, some approaches may outperform traditional methods in terms of helping you recruit a high-performing workforce. For instance, in *Who: The A method for hiring* (2008), Smart and Street describe how you can source talent by building and cultivating a rich, multi-faceted set of long-term relationships [1].

Development

Hiring and New Employee Training Process

Hiring is just the first step in acclimating a new employee to the organization. Most organizations follow a comprehensive new employee training process to bring new individuals on board and help them develop as professionals. The following items are commonly found in new employee training processes.

Onboarding Effective onboarding is a critical aspect of retention and sets the stage for a high level of productivity. Supervisors should prepare in advance to ensure a positive first day on the job. Supervisors should make room in the calendar to spend time with new staff or assign a leader within your team.

First day of work Developing a working relationship in the first days is paramount. Introduce the employee to key team members they will work with, important stakeholders in their work, and administrative staff available to help them. Ensure the tools they need for the job are working, such as computing equipment, electronic accounts, email, badges, etc. Either you or a peer should accompany them to lunch. Arrange to obtain feedback from the employee at the end of the first day.

First week Verbally present a written description of the job and responsibilities, roles, and tasks. Offer job shadowing opportunities. Show new employees what to do, watch them do it and then ask them to show you what they are doing. Greet the individual each day in person or by phone. Inform them of department goals, objectives, and current projects. Make a coworker available to answer questions. Ensure the employee is set up to receive organization-wide information (e.g., membership in email lists and important directories).

First month To maximize acclimation during the first month, the employee should learn about:

- the organization, culture, vision, mission, and values
- the organizational structure
  - roles and responsibilities of each department in the organization
  - organization communication channels such as an intranet
  - their individual training outline or checklist

Frequently follow up with the employee to answer questions and remove barriers to his/her success. Make sure to assist the employee in developing relationships with peers and others.

First three months Highly structured management in the first three months can be a good thing to facilitate the continued development of the employee's knowledge of their roles and responsibilities. Create appropriate assignments, team participation, and decision-making opportunities. Let the employee work more independently as they become more familiar with the job and gain confidence. Consider assigning a mentor to the new employee so the individual has a regularly available resource for questions.

Throughout this training time, it is important to assess whether a good hiring decision was made. Be as open and honest as possible as you learn how an individual's skills and experience match the job expectations.

First year When an employee has completed their first year in the position, it is time to begin discussing longer-term professional development. Seek evidence to validate:

1. Is the job description a realistic and accurate reflection of what is being accomplished?
2. Have you reached maximum capacity or productivity as expected?
3. Does the individual hired have the skills, knowledge, and experience to fulfill the responsibilities as you expected?
4. Has the job evolved differently than expected?
5. Finally, what needs to change?
   (a) Revise the job description. Engage the employee in this process.
   (b) Implement training and development plans.
   (c) Think about how to increase the capacity and efficiency of this position.

Assign tasks that bring more value to the job, such as a larger scope of responsibility, more complex information processing, or responsibility for guiding other talents.

Most jobs are not static. Requirements tend to evolve, especially in dynamic, growing organizations. It is very important to grow the employees with their jobs.

Evaluation, Compensation, and Maintaining the Workforce

Performance management is the process of maintaining or improving employee job performance through performance assessment tools, coaching, counseling, and providing continuous feedback. Individual contribution drives business results that accomplish the goals of the organization. The performance management process allows the employee and the performance manager to discuss development goals and jointly create a plan for achieving those goals. Development plans and individual actions then contribute to organizational goals and the professional growth of the employee.

Ways to foster a high-performance team:

- provide a positive and challenging work environment
- attend to employee engagement activities
- hold performance managers accountable for their role
- provide continual feedback from managers, peers, customers, and others
- convey consistent management practices

Annual Evaluations

Regular performance evaluation can:

- improve productivity through effective written and verbal feedback and coaching
- provide a framework for allocating rewards and opportunities
- identity opportunities for development and training needs
- communicate expectations and determine employee aspirations
- foster commitment and mutual understanding

The most commonly used rating method is a categorical scale. The appraiser checks the appropriate place on the scale for each task or behavior listed. A typical example is a five-point rating scale where (1) is significantly below standard, (3) is standard or competent, and (5) is significantly above the standard. Frequently, a comments section is included in which the performance manager can provide more detail about the employee's performance.

Evaluations are trending towards a formal process for collecting feedback from peers, subordinates, and key stakeholders (e.g., 360-degree review). Also, evaluations tend to provide feedback on individual contributions to achieving specific results, projects, and/or metrics versus behaviors.

Compensation

Regular evaluation of compensation can ensure that:

- productive talent is financially recognized in an equitable way internally
- conscious recognition of where there is not a good return on investment in talent so that plans can be put in place to increase productivity, skillset, and results in those resources
- a conscious focus on the external market and external value of the talent in the labor market

Managing the compensation of talent is a difficult challenge. If available, you should seek guidance from the HR department in your organization. It is common for HR to have access to external labor market data. An increase in salary and career growth can come in merit increases, promotions to new and open positions, or upgrades to existing positions.

Merit pay budgets are affected by the cost of living and market demand for talent. There may be circumstances where market adjustments, in addition to merit adjustments, are necessary to retain your top talent. Good external market data should include a job description with the title, qualifications for the position, and several incumbents. Do not make pay decisions simply based on salary data with a title and no job description, or information on the number of incumbents.

The availability of promotions and upgrades are affected by the demand for higher-level competencies in your workgroup. Promotions are applicable when current work done by this individual must be shifted to a new hire or someone else in the group to make room for new responsibilities. Upgrades are applicable when an individual has developed and produced results that bring a higher level of value to the position than the position in which they were originally hired. Upgrades should only occur if a full-time position at the new level exists, the individual has demonstrated the knowledge and skill required to perform the upgraded position, and funding is available. All upgrades and promotions should require an updated job description and a clear understanding of new expectations associated with increases in compensation.

Departure of Staff

The movement of talent outside the organization is a natural part of the healthy evolution of the workforce. Whether employees voluntarily leave or are involuntarily terminated, their experience with the organization should end in a mutually respectful manner. The ultimate goal is to keep high performers and to transition out low performers.

- **Voluntary terminations** are generally categorized as resignations and retirements. It is not a bad thing when an individual gets promoted into a position outside of your organization. Your goal is to be aware of all team members' aspirations so that those skills can be applied internally with the natural growth of the organization if possible. It is a given that you will not have opportunities for all, and departures can open opportunities for others to grow and develop.

- **Involuntary terminations** should involve counsel from your HR or legal department. You want to steer clear of accusations of wrongful terminations. Employees are protected by several laws that prohibit discrimination and unlawful employment practices. Documentation is extremely important and employment laws can vary among states.

  Common causes of involuntary resignations are not meeting performance expectations or violation of work rules. A progressive process of coaching, verbal warning, written warning, and final written warning is common. Timeliness and consistency in these communications are extremely important, as is consistent and unbiased documentation. State the facts, be clear, and do not exaggerate. It is not uncommon for employees to believe that they can miss deadlines, make mistakes, or bend the rules and keep their jobs. This might be true if one deadline is missed, or one mistake is made periodically, or they are occasionally late to work. When multiple deadlines are missed, multiple mistakes are made, or a rule is regularly violated, it is important to be clear that they cannot continue this behavior and retain their job.
- **Layoffs/Reductions in Force (RIFs)** occur in essentially all organizations as they need to reduce or adjust their workforce at one time or another. The most common reasons include the following:
  – mergers and acquisitions
  – downturn in business
  – reorganization or restructuring
  – financial difficulties
  – technology developments

  When determining which employees should be laid off, organizations should consider skills, work record, and seniority. In organizations where intellectual capital is the driving force, less consideration is given to seniority and more to the performance and skills of the individual as matched against the requirements of the post-layoff organization.

  Possible alternatives to labor reductions include asking employees to sustain pay cuts, offering voluntary termination or retirement with additional benefits, or asking employees to accept a reduced work schedule.

Legal Framework

There are several federal, state, and local laws that govern employment practices. Below are some key laws to be aware of:

- Title VII of the Civil Rights Act of (1964); amended 1972: prohibits discrimination based on race, color, religion, sex, national origin.
- Age Discrimination in Employment Act (ADEA) of 1967 prohibits discrimination in employment against persons age 40 and over. It forbids limiting or classifying employees in any way that adversely affects their status because of age.
- Pregnancy Discrimination Act (1978) amended Title VII to prohibit discrimination based on pregnancy, childbirth, or related medical conditions. It requires employers to treat pregnancy like any other temporary disability.
- Americans with Disabilities Act (1990) prohibits discrimination against a qualified individual with a disability because of his or her disability. A qualified individual with a disability can perform the job's essential functions with or without reasonable accommodations.
- Older Workers Benefit Protection Act (1990) requires that voluntary waivers of rights or claims under ADEA are valid only when such waivers are "knowingly and voluntarily" made. The Act requires waivers in writing, and employees considering signing a waiver must receive severance payments or some other thing of value, be advised in writing to consult an attorney, and be given at least 21 days to consider the agreement and be able to revoke the agreement for up to seven days after signing.
- Equal Pay Act (1963) prohibits discrimination on account of gender in the payment of wages.
- Family and Medical Leave Act (1993) entitles eligible employees of covered employers to take unpaid, job-protected leave for specified family and medical reasons with continuation of group health insurance coverage under the same terms and conditions as if the employee had not taken leave. Eligible employees are entitled to up to twelve workweeks of leave in a 12-month period for: the birth of a child and to care for the newborn child within one year of birth; the placement with the employee of a child for adoption or foster care and to care for the newly placed child within one year of placement; to care for the employee's spouse, child, or parent who has a serious health condition; a serious health condition that makes the employee unable to perform the essential functions of his or her job; any qualifying exigency arising out of the fact that the employee's spouse, son, daughter, or parent is a covered military member on "covered active duty."

Retention

Retention is the ability to keep talented employees in the organization. Organizations should aspire to keep high performers and to transition out low performers. High performers are employees who consistently achieve superior levels of performance and contribute value to the organization. Value is unique to an organization. It is aligned with the organization's goals, customer's satisfaction, and productivity. High performers outperform their peers and demonstrate a strong capacity to grow and succeed in their careers.

Forming and Maintaining High-Performing Teams

Teams consist of a group of people who, working as one unit, perform organizationally relevant work organized around one or more common goals. Teams vary in size and location. However, regardless of whether the team is made up of two people or several dozen, there should be an established set of goals that define why the team has been formed, what the team is expected to accomplish, who will be on the team, and how the team's work will be performed. Additional considerations might include the expected length of engagement (e.g., weeks, months, years), the geographic distribution (e.g., in-person, virtual, hybrid), and the formality of the team structure (e.g., tightly structured and part of the company organization chart, loosely affiliated with not direct lines of report). In the case of the Kensington CMIO, the 150 people are likely to be organized in several teams addressing different subtasks, with characteristics varying across all these dimensions.

Task forces, development teams, committees, and working groups are several types of teams that you will be called on to organize and lead or participate in as a member. A major advantage of a team is that the team can operate on greater scales, broader scope, and longer timeframes than one person. Interdisciplinary teams that bring together participants with diverse knowledge, experience, and expertise can solve problems and be innovative in ways that are not feasible for a single individual. At the same time, teams can be too large—for example, the 150 people in the Kensington case would be unwieldy as a single team.

Yet, despite their importance and ubiquity, it is not uncommon to encounter unproductive, dysfunctional, dormant, or failed teams. A diverse group of people working together can foster greater creativity and innovation, which often means more work can be completed. However, working together can also increase debilitating conflict, often causing coordination and communication challenges for the team leader. Ignoring these trade-offs during the formation and management of teams is an important cause of many problems and failures.

One good way to view team composition is to think about teams as a decision-making entity. Essentially, a team is a group of people who are successful (or not) as they make a series of right (or wrong) decisions. John Hollenbeck and colleagues [2] have studied this and created a multilevel theory of team decision-making. They note that nearly all teams have expertise distributed across team members—i.e., all members do not have the same information and expertise. This is particularly true in a healthcare context. What drives successful teams and better decision making includes three components:

- Team Informity. Do all team members share their information as necessary to make a good decision?
- Team Validity. Do team members have the right information and expertise to address the problem or opportunity?
- Hierarchical Sensitivity. Does the team leader effectively draw out all information and weigh input appropriately?

So, when thinking through team composition, it is important to include members with a range of experience and expertise and encourage their full participation. The team leader should be someone with experience in managing a team and bringing diverse perspectives together—not necessarily the person who knows the most about the problem or opportunity.

It is also important to think about the stages of team decision-making. Most decisions go through distinct phases:

1. **Problem identification**. What is the problem we are trying to solve? What does success look like?
2. **Information gathering**. What additional data do we need to make an informed decision? Where do we have gaps?
3. **Options generation**. What are the possible paths forward? This is a key and often underdeveloped step.
4. **Selection and implementation**. Of the options, which do we choose, and how do we move forward?

Interestingly, research has shown that diversity of background, experience, culture, and demographics significantly improves decision-making through the first three steps. Encouraging diversity of thought and sharing improves team informity and validity—more and broader ideas and information are better. But when it comes to implementation, the whole team must be aligned and help execute the plan. In the Kensington case, it would be wise to include diversity across clinical experience (e.g., in- versus out-patient), technical, billing, workflow, different levels of care providers, and IT personnel when scoping new system demands and opportunities. Such diversity may not be as productive when installing and implementing the system. These considerations show how team diversity is intimately connected to diversity in talent management in your organization. In an organization with low diversity, it is difficult, if not impossible, to assemble diverse teams.

Another common model in team dynamics was developed by psychologist Bruce Tuckman decades ago. His research captured the evolution of team dynamics through four phases:

1. **Forming**. In the initial phase, team members will be uncertain about the goals and objectives and interpersonal relationships. The team leader must make all members feel comfortable and help establish the initial culture of the team.
2. **Storming**. At this stage, member disagreements and differences begin to emerge. This may lead to friction and challenging of authority. The team needs to lead, manage, and remain open to diverse perspectives while helping establish the team culture and relationships.
3. **Norming**. Now team members begin to understand and respect their differences and different areas of expertise. Teams establish norms of shared values and behavior.
4. **Performing**. Now teams are ready to begin realizing their potential and delivering. They begin to address their objectives and even take on new and complementary roles within the team. This also sets up a united front for execution.

There are some great tools to help manage team composition, stages of decision-making, and team dynamics. We mention them briefly here and encourage you to explore these resources further. We cover some of the technological solutions for team management later in the chapter.

- **DeBono's Six Hats**. Have you noticed that some teams have their established nay-sayers, devil's advocates, and optimists who seem to play the same role at every meeting? Over time, this tendency can erode effective contribution and decrease the diversity of perspective. The Six Hats approach has team members all take on the same role at the same time to form a team perspective on what is known (facts), what is possible, what is problematic, how team members feel, where creativity and innovation play a role, and what processes can/should be used to govern team progress.
- **Johnson's Farsighted**. Steven Johnson's book "Farsighted" distinguishes between shorter-term tactical decisions he calls narrowband decisions versus complex decisions with far-reaching and possibly unanticipated consequences he calls farsighted decisions. Most of this chapter assumes teams have at least some element of farsighted decisions to make—like implementing a new EHR system for Kensington. Following Johnson's advice to thoroughly explore possible alternatives and options is particularly salient here.
- Other tools such as mind maps, the business model canvas, and case studies can be used at different decision-making stages to help guide team idea development.

As you lay the groundwork for a team, launch it and lead the team through the development and the performance of its work, you must balance the needs of the team and its members while at the same focusing on the purposes and goals, in essence, the reason the team has been formed.

Forming a Team

Determining that a team is the most appropriate solution to accomplish an established goal requires an evaluation of the goals' scope, scale, and timeframe. As the team lead, you will need to establish the team's purpose, which provides direction and expectations. Team members need to be identified and establish how the team will be organized and operate as it develops and performs the necessary tasks.

The best way to lay the groundwork for an effective team is to create a Team Charter. A **Team Charter** is a document that establishes why the team is needed, what it will do, who will be part of the team, and how it will function. The Team Charter needs to be explicit about the team's purpose, the team members, processes for working together, and necessary recourses. Once the Charter is documented, stakeholders and team members need to give their buy-in. This support gives the team the green light to get started and brings forward specific information about how the team will need to function to work effectively together.

A Team Charter may have many parts, but it is imperative to include the following:

- **Purpose**—Why does the team exist, and what is it expected to accomplish?
  – **Statement of Work**—The Team Charter should start with the Statement of Work, identifying the overall purpose of the team, what it will accomplish, and the expected outcomes.
  – **Duration**—The timeframe expected for the team to exist provides team members and other stakeholders a common understanding of how long the work will occupy the team members and allows for a better understanding of what resources will be needed to support the team.
  – **Scope of the team**—The beginning and ending scope of the team sets the parameters which allow the team leads and members to identify the tasks that are both in and out of scope for the team processes.
  – **End result**—Documenting the final product at the beginning will help the team establish meaningful goals throughout the process and allow the team to dis-

band at the appropriate time rather than continue without a definitive ending.

- **Members**—Who is involved in and affected by the team?
  - **Team members**—Each member should be individually listed, including team leads and members. If a specific team member has not been identified, the necessary expertise or role should be described.
  - **External stakeholders**—Parties who are not directly part of the team but are interested in the team operations and accomplishments should be identified. Explicit consideration of these critical stakeholders facilitates future communication and coordination of the team.
- **Structure and Process**—How will the team be organized and operate?
  - **Roles and responsibilities**—Identifying critical activities and indicating who is responsible for the tasks are crucial for everyone to understand and should be documented in the beginning and updated as the team works together. As new roles and responsibilities emerge, it is important to update the Team Charter.
  - **Meeting plan**—Documenting how often, when, and where the team is planning to meet should be clearly stated in the Charter to establish team member expectations. The frequency of meetings should be selected to establish an appropriate rhythm for the team while avoiding meeting overload.
  - **Reporting plan**—In addition to the meeting schedule, a reporting plan should be established. This specifies how the team members will communicate progress and issues, who will receive the reports, how the reports will be distributed, and where the communal documents will be stored.
  - **Deliverables and Timetable**—Team deliverables are the outputs created by the team that are identifiable indicators of its successful performance. These should be documented along with when the deliverables are due so that there is no confusion or misunderstandings about the timeframes of each task.
- **Resources**—What is needed to support the team, and where do those resources come from?
  - **Financial resources**—The funding needed by the team should be identified and documented. These resources do not typically come from the team members directly, so this aspect of the Team Charter often requires explicit approval and oversight of budgets by one or more external stakeholders.
  - **Technology** (see further details below)—Technology is the lifeline of teams these days. Since teams are often distributed geographically, all members must have access to the technology designated as the main source of communication. When setting up a team, a careful review of the needed and available technologies will provide insight into the best forms of communication for the team. Identifying what technology each member needs will help significantly reduce logistical problems and ensure that all team members can participate when needed.
  - **Support**—Identifying administrative and management support that the team will need to develop and function effectively allows for a realistic assessment of the cost of forming the team.

A comprehensive Team Charter will lay the foundation for an effective team by clearly documenting its purpose and tasks, composition, structure and process, and the necessary resources.

As previously noted, technology is a vital resource in supporting efficient and successful teams. Electronic tools can perform various tasks and activities such as communicating, collaborating, sharing, and storing information. Some electronic tools only provide one function, while others are more encompassing.

Communication can occur in many ways, and variables such as accessibility and urgency should be considered when choosing which form is most appropriate. Email is a simple method of communication that allows for easy referencing, sending mass messages, and instant access to information and files. Phone calls and web calling foster quick, effective and clear communication. Instant messaging, or chatting, supports short asynchronous rapid exchange of information while video and web conferencing replace in-person communication, such as meetings, which provides flexibility. Commonly used services and platforms include:

- Microsoft Outlook, Gmail, Yahoo
- WebEx, Zoom, and GoToMeeting
- Skype, Slack, and Microsoft Teams

Collaboration software solutions and applications go beyond offering communication-only capabilities and are designed to support teams collectively. They serve as a one-stop-shop, eliminating the need for multiple tools by providing users with the ability to communicate in various ways in addition to sharing and storing information. Seamlessly integrated tools provide functionality in real-time across different devices, supporting better visibility and efficient work processes. Microsoft Teams and Google Workspace are examples of software solutions that serve as a centralized hub for teams.

Common features of collaboration software include:

- The ability to establish a centralized, private and secure environment.

- Integrated communication tools that include chat, calling, video conferencing, screen sharing, and file-sharing functions.
- Storage capabilities serve as a repository, allowing documents to be easily accessed and remain current and synchronized.

When deciding which solution is best for your team, the following considerations are important:

- ease of use; training required
- scalability and ease of integration
- organizational standards
- external collaborator access
- disaster recovery services (backups or prevention of loss)
- project management features
- cost
- privacy and security to ensure compliance, especially if your team will be using the platform to share or present protected health information.

Last, it is important to remember that while electronic tools offer many benefits, they do not guarantee team success!

Initiating a Team

Once the charter is established, the team is beginning to take shape. However, at this point, the team has not been formed. You will need to bring in the team members, guide them in developing a shared understanding of the goals and tasks, build relationships, and understand the team's structure and roles. Articulating these with the team during the team's initial meetings will help develop the cohesion the team needs to function efficiently and effectively.

Relationships

- As discussed in previous sections, following the necessary steps to gather the right people is key to creating a high-functioning team. The team's organization will affect the relationships between the team members in terms of responsibility and authority. A well-designed team will promote good communication between team members, which can help make the team more productive. In addition, the relationship between the tasks and the workflow process is affected by the organizational design of the team.
- Although job titles may be duplicated throughout the team, each member will contribute uniquely based on their knowledge and experience. The more variety the team has, the more views are likely to be articulated. It is very important to have all points of view represented. However, the composition is more than just having the right people; it has a good combination of people. Some combinations can contribute to creativity, and others can set a team up for nasty conflict. Having the right inputs is a critical condition for forming and running successful teams. Lack of purpose and goal clarity, unrecognized fault lines, and ambiguously defined connections with external sponsors and stakeholders can undermine a team and make performance difficult or impossible. Recognizing and mitigating issues such as these early on and having a good organizational design will create an environment for the team to work effectively with one another.

Team Structure

The structure and roles documented in the Team Charter need to be expanded to include shared processes, interdependence, and boundaries. Establishing and documenting these parts of the team structure allows the team members to relate to the overall structure. An understanding of their roles, in addition to others' roles, can help decrease downstream confusion. Since many of the requirements for a team to be fully functional may not be included in the established team, external parties may need to work with the team to complete the tasks. This is often referred to as Boundary Spanning, where the team leader needs to actively manage these external relationships and should also be documented in the team structure.

Often, people will be part of more than one team. You will need to work with the team members to understand what type of time commitment they can give to your team by providing you what percentage of their time will be dedicated to your team. This is a very important step, as it will determine which tasks can be assigned to team members.

Task Structure

Team interdependence and task structure are extremely important to establish in the initial stages of forming a team. Task structure lays out each task, who will accomplish the task, and when the tasks will be completed. The larger tasks will need to be systematically decomposed into smaller tasks, assigning these smaller tasks to appropriate team members. Be sure to carefully evaluate the time and effort needed for each task and relate to the team member assigned.

Task interdependencies should be documented and shared with all the team members so that each person has a clear understanding of which outcomes will affect the activities and timelines of other team members.

Group Management Processes

Working with the members during the initial stages of forming the team creates an environment where all members feel comfortable will help the team work smoothly, having a major impact on the goal. The initial interactions (forming to storming) of a team are extremely important in establishing motivation and understanding. This helps establish team empowerment, allowing each member to understand how their expertise will contribute to the team and the outcomes. Key actions to be taken when initially developing the team character include:

- **Kick-off meeting**. During initial interactions when the team is forming, the team members need to develop interpersonal relationships. Providing time for the team members to get to know each other will help build this rapport. Gathering team members for an initial kick-off meeting is extremely important for articulating a shared mission and clearly understanding the goals and activities. As icebreaker activities, each member could share a success story and a frustrating team experience, an interesting personal fact about themselves that others are unlikely to know, or the “Two Truths and A Lie” game. Developing these initial relationships can lead to a discussion about the best way for the established team to conduct itself. Setting these expectations early on will create an environment where the members will feel included and will be more likely to contribute regularly.
- **Team expertise**. In between meetings, there are likely to be questions and issues that need to be addressed. Since each member will bring their expertise to the team, including areas where members have more experience than the team lead, the team should be encouraged to share their knowledge and utilize it when appropriate. When the team is initially forming, set aside time for the team members to share areas of expertise and document the areas that they will be willing to provide guidance about for fellow team members. Having a wide variety of expertise is a very positive feature, as it provides a wealth of information.
- **Problem solving**. Establish how problems will be solved. It should be understood that there will be problems on the team, ranging from miscommunications to outside resources not following through to disagreements between team members. While the team should develop an internal process for how team problems will be solved, you, as the team leader, will need to provide general problem-solving rules. To extend this exercise, allow the team members to provide examples of possible problems to practice addressing the established team problem-solving processes.

Now that the team has been introduced, roles and responsibilities have been established, and the tasks have been laid out, you have the beginning of a working team. These initial interactions were extremely important to how the team will function once the process begins to norm and perform.

As you lead the team, you will be responsible for managing the work process and ensuring everything runs smoothly. This coordination is continuous, and you will often need to refer to the Team Charter to help the team stay on track. You will also need to establish a plan for external communications. Although you have put together a team with various talents and expertise, the team will need outside assistance and information. This wide variety of talents and expertise on the team may cause conflict at various times that will need to be handled professionally, working to keep the conflict constructive.

Coordination

Leading a team should start with following the documented processes and procedures. However, there will be times when you will need to readjust the plan based on task needs, issues with team member’s other commitments, and resource changes.

Task Realignment

The task structure has been established, is well documented, and the team understands their tasks and how they fit into the team process. However, there will be incidents when a team member cannot complete a task by the assigned time. As the team lead, you will need to decide if the task can be delayed or reassigned to another team member. When making this decision, be sure to consider other tasks that are dependent on this task. Having established the team member skills when ramping up will provide the information you need to find appropriate members that can assist if you choose to reassign the task.

Team Commitments

Once the team project is underway, you will need to be responsible for tracking the time for each team member. As stated earlier, team members are often overcommitted by being part of more than one team and will need guidance from the team lead to find a way to balance their workload. It is not uncommon to revisit the percentage of time a team member can contribute to the team as work progresses. The best way to manage this is to understand each person’s contribution to the team, logically evaluate if the timing of the team member’s contribution will affect another task or milestone, and work with that person to document when each of their assigned tasks needs to be completed.

Resource Changes

Team resources have been documented in the Team Charter; however, most teams undergo various changes, causing a shift in resource needs. Adjusting to these changes can be challenging, as it is important to keep all members connected. Initially, budgeting for a variety of unforeseen scenarios is an important step in planning for these occurrences. However, there may be situations where you will need to involve stakeholders to make decisions about new resource needs to keep the team on track.

External to Internal Communication

The internal communication plan is documented in the Team Charter; however, there will be times when the team will need to communicate with people outside the team. The process needs to be established and shared with the team to avoid confusion about gathering and distributing the information. Often the team leader is designated as the person that will communicate with people outside the team. When this occurs, the information will be disseminated from the top down. It is best to have one team member gather information and distribute it throughout the team, which causes less confusion about where it will be coming from. However, it does not always need to be the team leader. It is common to have a designated team member connect with outside contacts.

Conflict

Keeping in mind that the benefit of having a team is that the diversity will offer a wide variety of talents to enhance the team and cover a range of expertise to extend the team's success. This also means there will be a wide range of personalities and opinions within the team that may cause conflict. Conflict occurs when there is an expression of opposing views, which may be real or perceived. Whether the opposition is real or perceived, there is a conflict if two or more members disagree. Conflict can range from a disagreement on how to proceed with a task to personality conflicts. As the team leader, you will be responsible for professionally managing the conflicts to keep the team on track.

Constructive Conflict

Constructive conflict occurs when the benefits of the outcome outweigh the cost of the issue. Constructive conflict should be supported, as the outcome is usually helpful and can produce a new process or even create a new way of resolving an issue within the team. As the team leader, you should encourage these discussions. However, you will need to make sure the disagreeing team members feel comfortable with the level of disagreement, allow all in the party to share their point of view, and keep communication flowing. The parties also need to embrace change and listen to the opposing point of view, which often leads to a mutual agreement and a shared decision. The issues should be documented, along with the outcome, for future reference.

Destructive Conflict

Destructive conflict is usually observed when team members are not focusing on the issues that need to be resolved but rather on personality attacks or hostile discussions. Destructive conflict can erupt due to a power struggle, feelings of inequality, or personal vulnerability. As the team leader, you will need to handle destructive conflict very professionally and carefully. If not handled properly, an imbalance of power or damaged relationships can result.

When a conflict becomes destructive, the following should be used to work through the situation:

1. Conversations should be halted to allow the parties involved to decompress for some time.
2. Issues should be acknowledged and you should get an agreement from everyone involved about the real issue.
3. While working with the team, demonstrate positive language and insist that all parties do the same.
4. Remind the parties involved that the issue should not become a personal attack against anyone else involved.
5. Once the situation has moved away from a destructive nature, work to make the conflict constructive, emphasizing that the outcome will benefit the team.

Conflict will inevitably occur in every team. The key is to be prepared for it. Being professional, keeping the team goals in mind, and keeping the team members focused will allow for more constructive conflict than destructive conflict.

A Successful Team

When a team is cohesive and productively working towards the same goal, this is a sign that you are managing a successful team. Happy team members, effectively and efficiently progressing through the tasks and accomplishing the goal, are ideal and should be strived for within each team. However, you can have a cohesive team that is not actively working towards the team goal. In other words, you have happy team members, but they are not productive. You can also have a productive team that is very unhappy. As the team lead, you will need to continuously evaluate your team cohesion, attitude, and productivity. If you see issues, you need to evaluate if the root cause is the unhappiness of the team members, con-

Fig. 20.2 Judging from Dilbert cartoons, meetings are among the most reviled activities in businesses (DILBERT © 2007 Scott Adams, Inc. Used By permission of ANDREWS MCMEEL SYNDICATION. All rights reserved)

flict about the tasks or goals, or one of the other core contributions to the team mentioned earlier needs to be revisited.

Things to remember:

1. Team empowerment should be developed early on, starting with the initial meeting. Every team member will need to understand the goals and processes, and know that each person will be contributing their unique expertise.
2. Relationships are extremely important. Building a strong team means having respectful relationships among the team members. Because of the variety of expertise brought to the team, there is likely to be conflict. However, constructive conflict can be good for the team. Destructive conflict can be managed to become constructive conflict.
3. More people does not always mean a better team. If there are resource issues or the team is not working towards the designated goals, adding more people can often cause conflict and decrease productivity. Often, the reallocation of tasks and responsibilities within the team is the best solution.
4. A team can fall victim to communication overload. More information and more communication are not always better, and it can often be overwhelming and decrease production. Establishing a practical way to communicate information within the team, and keeping in mind that many team members may be on more than one team, will help decrease team overload.

The techniques described here apply to all teams, whether a task force, a development team or a committee. A Team Charter will provide essential and explicit foundations for the team. The initial interactions of the team are extremely important to build relationships and encourage all members to feel empowered. Managing conflict between members is an essential part of having a successful and productive team.

Managing Meetings

Using Meetings for the Right Purpose

Holding meetings is one of the most hallowed traditions in organizations. However, judging from how often meetings star as topics in Dilbert cartoons (see Fig. 20.2), they are also among the most reviled business activities.

Meetings play a significant role in highly interdisciplinary fields such as clinical informatics. Very little of its work happens through individual and isolated effort. Rather, much of it is completed by interdisciplinary teams in highly collaborative ways. Now that you have learned about assembling and creating high-performance teams, it is time to look at how meetings can support and facilitate collaborative work processes.

Meetings are expensive, especially when all factors, such as personnel costs for participants, effort and time expended in preparation and follow-up, and meeting room and technology costs are considered. A 1-h meeting of 10 project managers and software developers, assuming a blended total salary of $150/h, has a direct cost of $1500. A similar meeting among executives will incur a multiple of that cost.

Good meetings do not just happen on their own. They result from careful planning, attention to participant needs, and follow-through [3]. At their best, meetings are important tools for getting collaborative work done in organizations. At their worst, they are time and efficiency sinks that are a drag on productivity. How you plan, run, and follow up on meetings has a lot to do with their usefulness to your project and the organization.

Activities in meetings typically fall into three categories: information-giving, information-exchanging, and information-creating. Information-giving activities include training, presenting a new concept, motivating, and delegating. Information-exchanging activities include performance interviews, building support for a decision/approach, and exchanging ideas among various stakeholders in a project. During information-creating activities, attendees make decisions, solve problems, analyze situations, or brainstorm. Each of these activities has its rightful place in meetings, but information-creating and decision-making are the most value-added from the project and organizational perspectives. Information-giving is often more cheaply and effectively achieved with methods other than meetings, such as email. What activities a meeting is focused on determines how you prepare, what materials you provide, how you facilitate the meeting, and how you follow up.

Leading Meetings

Good leadership is essential for meetings. However, effectively leading a meeting does not mean applying the same leadership style every time. Depending on meeting purpose, attendees, topic, context, and project stage, you may use a different leadership style in different meetings or even combine two or more in the same:

- **Autocratic**: In this style, the meeting leader is always in control and organizes and follows through on all phases of the work. This leadership style works best with new employees, ill-defined topics/questions, and new teams.
- **Laissez-faire**: In this style, the meeting leader functions more like a facilitator and/or coach. He allows attendees to do what they think is best. This style works best with empowered individuals and groups.
- **Democratic**: The democratic style mixes elements of both autocratic and laissez-faire approaches. The leader encourages the group to contribute ideas and expertise but ultimately controls group decisions, even if they are often arrived at democratically.

Leading meetings effectively is challenging. Critical measurements for the success of a meeting include:

- What relevant and impactful decisions were made in the meeting?
- What action items that people can follow up on did we identify?
- How did this meeting contribute to the achievement of project objectives?

If the answers to those questions are not satisfactory, the meeting was most likely a waste of time.

During the meeting, the leader must focus on achieving the objectives of the meeting and manage the interactions among participants to maximize efficiency and effectiveness. When meetings work, they flow naturally. Everyone understands questions/problems. Comments are constructive, balanced, and promote the achievement of meeting goals. Individuals contribute maximally to the meeting. The discussion results in outcomes that single individuals or even a subset of meeting attendees could not have achieved. Finally, everyone understands what needs to be done after the meeting. Achieving this kind of flow rests, in large part, on both meeting leaders and attendees engaging in the types of beneficial behaviors listed in Table 20.3.

Table 20.3 Positive behaviors that both leaders and participants should demonstrate in meetings

Leader	Participant
be open and encouraging	decide to make the meeting worthwhile; be open to new ideas
serve as a catalyst by posing questions	attempt to answer leader's questions, especially if a long silence has ensued
maintain harmony; remind participants of shared goals and appropriate meeting behaviors	defend your ideas, but exercise appropriate meeting behavior
don't ramble	don't ramble
gather support for ideas before the meeting	review minutes of the last meeting; study agenda; assemble materials; complete tasks assigned at the last meeting
don't control or dominate the discussion	practice listening skills; don't engage in side discussions
take notes on all that occurs	take notes and ask questions
use and elicit "we" behaviors	demonstrate "we" behaviors
exercise follow-up options if consensus can't be reached	suggest closure for items that aren't resolved within the allotted time; volunteer for follow-up tasks that are assigned
concentrate on the meeting (no multi-tasking, e.g., using electronic devices)	concentrate on the meeting (no multi-tasking, e.g., using electronic devices)

Often, leaders and participants don't exhibit all or even the majority of those behaviors. For instance, as a leader, how do you handle the participant who constantly dominates the discussion? Or the fact that no one seems to show up on time? Leaders must handle many difficult situations, such as irrelevant, unworkable suggestions; attendees who don't contribute; rude, mocking comments about suggested ideas; combative attitudes towards other participants; and presenters who are not prepared. Every one of these problems can be mitigated or avoided using one or more strategies. Meeting leaders must be prepared and ready to handle these challenges if they don't want to be the subject of a Dilbert cartoon.

Participants often see themselves as passive victims of whatever transpires in a meeting. However, that viewpoint often contributes to meeting failure. Participants need to see themselves as active agents who can not only help keep a meeting from derailing but substantially contribute to its success. For instance, for meetings in which the discussion seems to go nowhere, an attendee could ask: “Can we summarize the main points of the discussion up to now so we are clear on what question(s) we should address next?” Or, if action items have not been made explicit, the question: “What are the action items resulting from this meeting?” right before the meeting ends can work wonders.

Using Meetings for Maximum Effect

Marlene Caroselli suggests a seven-step framework for conducting successful meetings in the book “Meetings that work” [3]. This framework is an excellent way to think through meetings, starting from whether they are required to maximize the results of a meeting. Does the framework include the steps Required?; Readiness; Restraints; Record; Regulate; Review and Results, which are briefly described below.

1. **Required?** The first and most important question is whether a meeting is required at all. Most people don’t even stop to think about that question but simply forge ahead with scheduling a meeting. Questions you may ask include: Are you only meeting because it has been a week/month since you met? Is it more valuable to have people work on their projects or meet for an hour? Have we made enough progress since the last meeting to justify another one? Is there an alternative to a group meeting, such as a phone conversation, one or more informal meetings, or email?
2. **Readiness**. To increase the chances that the meeting is effective, it should be well-prepared. Meeting leaders need to think about the purpose of the meeting, desired outcomes, problems to be solved, and information that attendees need to contribute fully to the meeting (e.g., materials to be reviewed before the meeting). Meeting invitations should only include the minimum number of appropriate participants. Don’t invite people who are only peripherally involved with the subject or whose time would be better spent outside the meeting. A solid agenda is an important foundation for a successful meeting. Distribute the agenda at least 24 h before the meeting and other relevant items in enough time to allow attendees to review them. If you are presenting in the meeting, make sure you are ready with materials, visuals, and a well-prepared, cohesive presentation that you can deliver smoothly and concisely. You may also want to consider the day of the week or time of day for your meeting. Typically, meetings work best when participants are fresh, well-rested, and energetic.
3. **Restraints**. In the step “Restraints,” think about what or who may pose a barrier to the meeting. Eliminating real or potential barriers ahead of time can significantly affect the success of your meeting. Things you can check ahead of time include room size and configuration (Is the room big enough to accommodate everyone? Is seating configured to help support the meeting objectives optimally [e.g., round table for discussion]? Is the meeting room right and well-lit, preferably by daylight?), audiovisual requirements (Is the computer for the presentation connected and ready to go?), and required materials (Do you have enough handouts?). During the meeting, try to follow your agenda. If you start running out of time, shorten discussion or defer topics until the next meeting.
4. **Record**. A good record of the meeting provides a solid basis for decisions, further discussions, and follow-up. Also, it may help you avoid revisiting issues you have already covered. Meeting minutes typically include attendees, decisions and/or action items, assignments, and a topic outline for the next meeting. Meeting minutes should be written and distributed within 24 h of the meeting. The increasing use of Web- or videoconferencing tools for meetings has opened up to other useful ways to produce a meeting record: (1) recording the meeting and (2) generating transcripts. Meeting recordings and transcripts can be very useful in generating minutes, especially for fast-paced, idea-filled meetings.
5. **Regulate**. During the meeting, the leader is expected to regulate the flow of events. Strategies to keep a meeting on target and on time include starting on time, keeping the group on target when the discussion is straying from the current topic, minimizing distractions, making sure all attendees contribute appropriately, recapping the discussion periodically, and following the agenda. Meeting participants should ask themselves: “What can I do to help the meeting leader make the meeting as efficient as possible?”
6. **Review**. Agreeing on and capturing ideas, suggestions, action items, and decisions arrived at in the meeting are very important. Whiteboards and projection screens are a good way to visualize the main points for everyone, develop lists of tasks, and diagram difficult topics. Immediately before the end of the meeting, review decisions and action items to make sure everyone leaves the meeting “on the same page” and knows what to do.
7. **Results**. Meetings are not finished when their appointed time ends. Follow-up is extremely important to translate what happened at the meeting into progress and the input for the next meeting. With good meeting minutes in hand, follow up on action items with those assigned tasks. A good idea to hone your meeting leadership or participation skills is to check with one or more participants about what went well and what could be improved.

Out-of-the-Box Ideas for Making Meetings Successful

For most people, the mental image of a meeting is a 1-h event with a defined number of participants located in a conference room, maybe accompanied by a PowerPoint presentation. However, there are many ways to adapt meetings to make them more effective, dynamic, and fun [4]. Some examples:

- **Do meetings always have to last one hour?** No. The agenda should drive the time required for a meeting. If the work of a meeting is done and it can end early, then **end it early**.
- **Why not go outside or have a "walking meeting?"** Picking an unconventional location for a meeting (e.g., in a nearby park, on lawn chairs under a tree, in a roof garden) will likely energize participants and make the meeting more interesting. A walking meeting can provide important exercise to mitigate the adverse health effects of our primarily sedentary work style and increase blood flow to the brain—potentially resulting in better ideas.
- **Are people chronically late for a meeting?** A few potential remedies: (1) Latecomers deposit a dollar into a common fund, to be periodically spent on a social gathering for the group; (2) After the meeting starts, note-taking responsibility for the meeting transitions to the person showing up late ("Pass-the-pad" approach). This has the benefit of latecomers reviewing the notes to find out what happened in the meeting so far. (3) Schedule the meeting to begin at the time when everyone usually has shown up, like at 2:12 pm.
- **Does everyone have to attend the whole meeting?** The answer is usually "no." With a well-planned meeting, you can invite specific attendees for particular segments, either in person or through videoconference. Instant messaging can deliver such invitations on demand, making sure no time is wasted.
- **Do meetings always have to run over time?** No. Bring an egg timer to the meeting, set it, and when it rings, the meeting is over. Period.
- **How can you leverage social media to accomplish the purpose of meetings?** One idea is to have a "virtual" meeting on Facebook, Twitter, or a similar venue. Post the meeting topic and question(s), and then use the platform to brainstorm or discuss, maybe over a few hours or a day. The strategy has the benefit that if your attendees have any friends or followers, a larger audience can be drawn into the discussion.
- **How can you make sure that a meeting has an agenda?** One technique is to reject the electronic invitation or not show up if the agenda is not distributed ahead of time.
- **How can you make scheduling meetings among people with busy calendars easier?** New electronic tools are emerging to make one of the most dreaded chores among administrative assistants and secretaries easier: scheduling meetings involving activities with busy calendars. Current examples of such tools are Doodle polls, NeedToMeet, Calendly, ScheduleOnce, Assistant.to and CalendarHero. These tools have a varying set of features and functions, so it is a good idea to research them thoroughly before adopting one.

In summary, group meetings are important tools for achieving organizational objectives. However, meetings work best when they are carefully considered, well-planned and –executed, and are balanced with other organizational activities.

Conclusion

Informatics sits at the unique intersection of people, process, and technology. Therefore, to get anything accomplished in clinical informatics, a leader must manage humans and navigate complex organizational structures. This chapter provided a review of strategies and best practices for managing the less fun, but important, aspects of managing people and processes, including team meetings. Hopefully with this knowledge you can more effectively, strategically lead teams to achieve organizational goals rather than feel as though you are just "herding cats" to adopt or use an information system.

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