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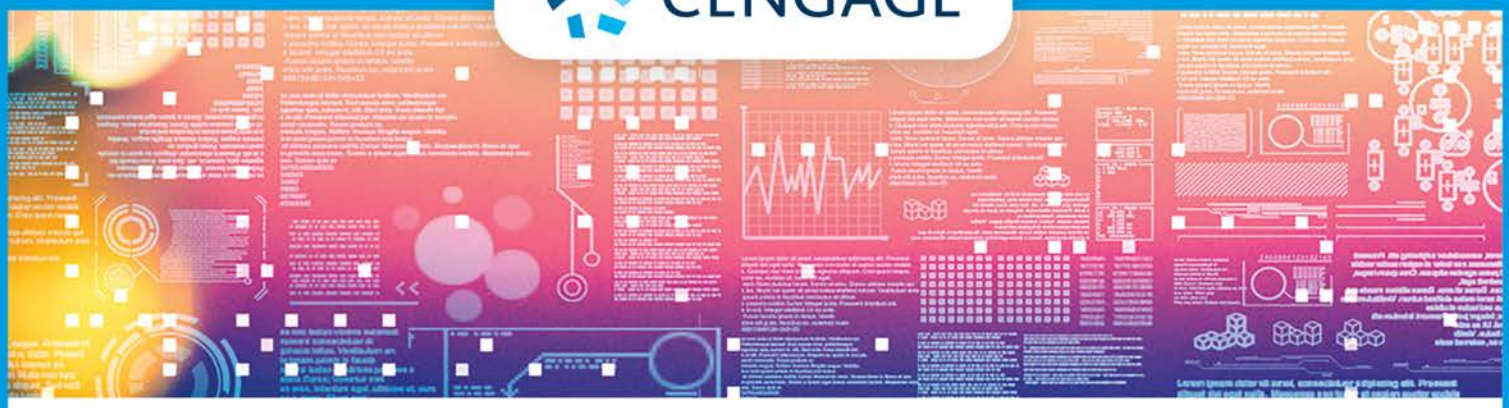
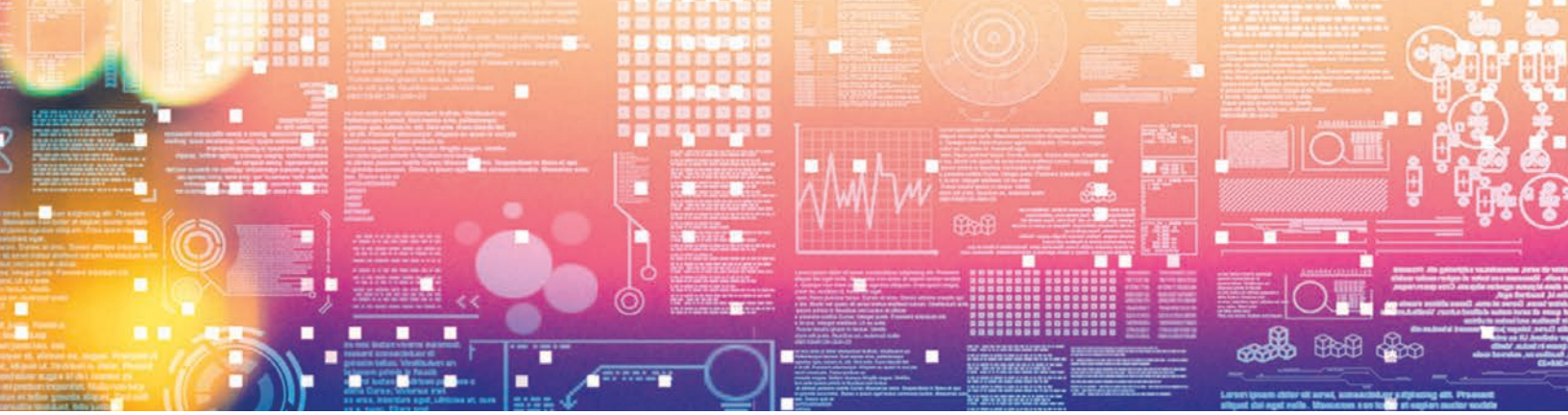


THIRD EDITION

Today's HEALTH INFORMATION MANAGEMENT

An Integrated Approach

Dana C. McWay, JD, RHIA, FAHIMA



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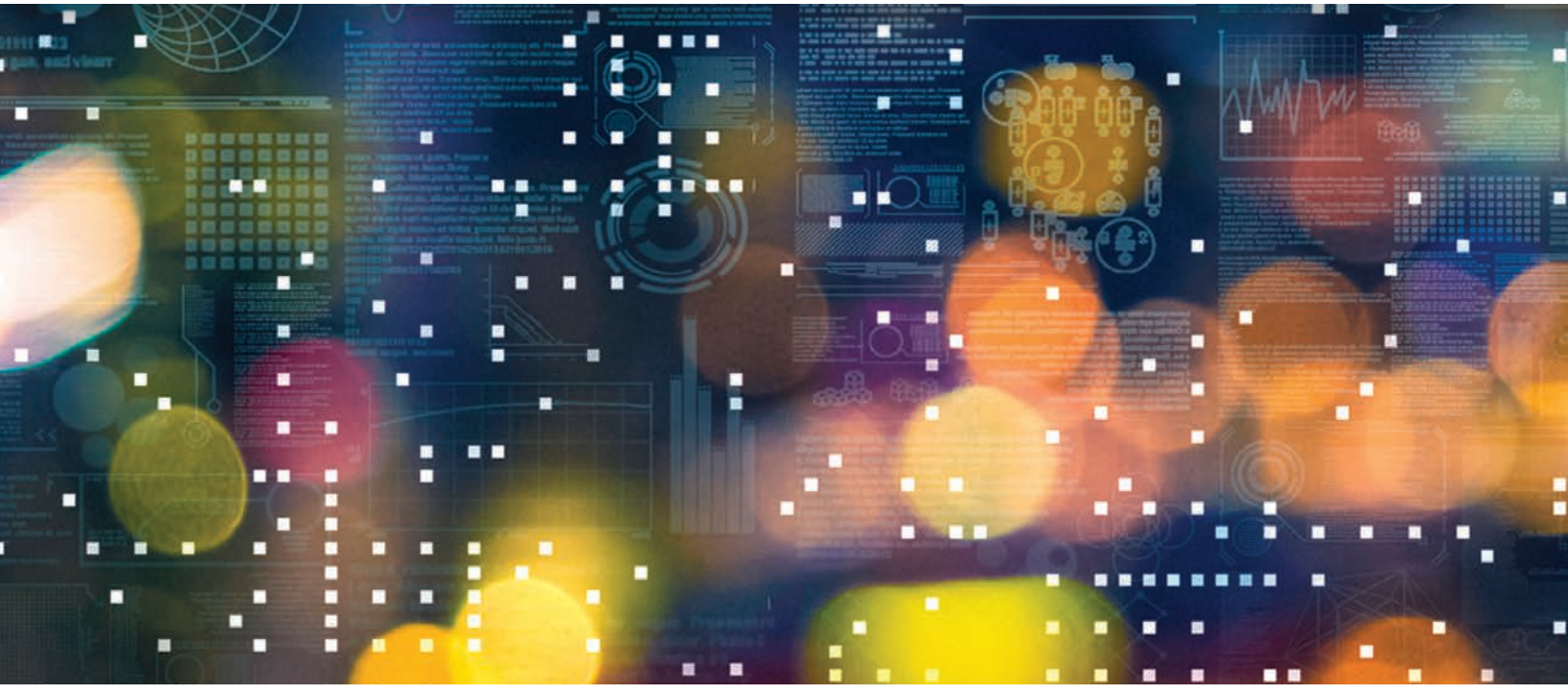

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Dana C. McWay

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APPENDICES

PREFACE

Over the past quarter century, new developments in technology, law, and organizational management have changed the profession of health information management (HIM). Once seen as the guardian of a paper-based health record, the health information management profession has evolved as health care has evolved, expanding to include the development and implementation of the electronic health record and management of the data contained within it. As the need for health information has grown, so has the need to manage that information. The health information professional plays a more central role in the delivery of health care than ever before.

For those interested in learning about health information management, this text provides a comprehensive discussion of the principles and practices presented in a user-friendly manner. It is designed to serve as a broad text for the health information management discipline and does not presume that the learner is already versed in the subject matter. The text is designed to incorporate the model curriculum of the American Health Information Management Association for both the health information administrator and health information technician programs. Although differences exist in curricula between the programs, it is my belief that the content of this book is applicable to students in both groups because it is written with multiple levels of detail. Instructors may determine the emphasis level of each chapter as it is taught during the semester. This text also serves as a reference point for professionals in the health care field who need to acquire a general understanding of health information management, and as a research tool for other allied health and medical disciplines.

Although this text is intended to be comprehensive, one textbook could not possibly encompass all the details of the broad discipline of health information management. Long past is the time when one textbook could cover all matters and issues associated with a single discipline—the evolution of the HIM profession is such that other specialized texts are needed to complement this text. Every effort has been made to capture the significant changes and trends that the HIM field and profession have undergone in recent years.

Two things set this text apart from others in the field. First, the book is authored by only one person, allowing for a consistent voice and tone across the chapters. It also means that one chapter will not contradict the contents of another chapter within the same book, and that the difficulty level will not vary from one chapter to the next. Second, the text integrates into each chapter, as applicable, five areas that are significant to health information management: the American Recovery and Reinvestment Act (ARRA), including HITECH; the Health Insurance Portability and Accountability Act (HIPAA); the Genetic Information Nondiscrimination Act (GINA); ethics, and informatics. This approach is taken so that while the student is learning the substantive matter, the student can also understand the interplay between these areas and the substantive matter. Boxes for each of these five areas are found near the text discussion to highlight this interplay.

BOOK STRUCTURE

This text offers a comprehensive, sequential approach to the study of health information management. Although each chapter is designed to stand alone, it is grouped with related chapters to form units of study. Four major units of study are presented in this text:

- **Part 1** serves as an introduction to health information management. This unit of study comprises four chapters, beginning with a discussion of health care delivery systems, both historically and in the present day, and the health information management profession, including various career paths. These chapters are followed by a discussion of legal issues, including an overview of the court systems, the principles of liability, HIPAA, and health care fraud and abuse. The last chapter addresses ethical standards, outlining the basis for ethical concepts and theories and their role in decision-making, explaining various ethical challenges, and highlighting bioethics issues.
- **Part 2** serves as an overview of clinical data management. This unit of study consists of five chapters and begins with a discussion of health data content and structures, including types and uses; forms design and control; data storage, retention, and destruction; and indices and registries. Nomenclatures and classification systems make up the next chapter, and a discussion of trends completes the chapter. Quality management, performance improvement, risk management, and utilization management form the basis of the next chapter. Health statistics is the focus of the next chapter, addressing statistical literacy in general, and regression analysis and HIM statistics in particular. Research issues complete the unit, with sections addressing research principles, the research study process, the role of institutional review boards, and the discipline of epidemiology.
- **Part 3** serves as an overview of information technology issues. This unit of study is comprised of three chapters and begins with a discussion of database management, including concepts and functions, data sets, and data exchange efforts. Information systems and technology is the subject of the next chapter, including a discussion of various information systems, systems architecture, and future trends in IT. Informatics completes the unit, with sections addressing electronic health records, interoperability, and technological applications and trends, including the role of social media in health care.
- **Part 4** serves as an overview of management issues. This unit of study consists of four chapters, beginning with management principles and theories, including change, project, and knowledge management. A discussion of human resource management follows, focusing on staffing, employee rights, supervision, and workforce diversity. The financial management chapter addresses the fundamental concepts that drive financial management, including accounting, budgets, and procurement. The last chapter provides a basis in reimbursement methodologies, including how third-party payers and the revenue cycle function in the health care world.

Wherever the term *health information manager* is used in this text, I refer to both registered health information administrators (RHIA) and registered health information technicians (RHIT). I make this choice consciously, because the experience of the health information management profession during the last three decades has shown that professionals at both levels hold a variety of positions within the discipline. Additionally, care has been exercised to use the terms *health record* and *health information management* in lieu of *medical record* and *medical record management*, because these are the terms in use in the 21st century. Information contained in the text boxes within the chapter provides a quick grasp of concepts that may be new to the learner.

PEDAGOGICAL FEATURES

Each chapter contains:

- Critical Thinking exercises that pose questions designed to stretch the reader's analytical skills
- Text alerts highlight issues related to ARRA, HIPAA, GINA, ethics, and informatics throughout the subject matter as appropriate
- Learning objectives

- A listing of key concepts that are further explained in the text
- Figures and tables that provide details to illustrate the content of the text
- Case studies to apply concepts learned to real-world situations
- Confirm & Clarify Understanding exercises designed to reinforce essential concepts presented in the textbook
- Review questions designed to test comprehension
- Enrichment Activities designed to assist critical thinking
- A list of Web sites that relate to the chapter's subject matter for the learner's easy reference

Additionally, appendices contain:

- An extensive glossary of terms
- A list of abbreviations commonly used in HIM
- Web site resources, organized by subject matter and in alphabetical order
- Sample HIPAA privacy notices
- A table of selected federal laws applicable to HIM
- Selected HIPAA regulations

NEW TO THE THIRD EDITION

- Revised chapter content meets CAHIIM standards and competencies for accreditation and reflect the latest trends in health care.
- Feature boxes call for the use of critical thinking skills to answer questions that cause the reader to apply the text material to real world situations. Suggested answers to each Critical Thinking exercises are provided in the Instructor Manual for use in stimulating class discussion.
- Confirm & Clarify Understanding exercises in every chapter are designed to reinforce essential concepts presented in the textbook. Exercises include acronym review, True & False questions, multiple choice questions, and matching pair review. Answers to these exercises are provided in the Instructor Manual.
- Substantial revision to Chapter 2, The Health Information Management Profession, reflects changes to the profession, addresses how knowing the flow of data influences HIM and its future, and includes a revised careers section.
- Substantial revision to Chapter 6, Nomenclatures and Classification Systems, incorporates experience with ICD-10, the interplay of ethics with the coding function, and includes an updated explanation of various coding systems.
- Substantial revision to Chapter 10, Database Management, incorporates a discussion of scaling solutions to address the large size of databases and their proliferation, updates to the discussion of data sets, new material on health care data sets, and updates regarding data exchange.
- Substantial revision to Chapter 11, Information Systems and Technology, incorporates material on new trends affecting IT – Data and privacy: blockchain, CRISPR, nanobots, nanomedicine, satellite modems; digital divide and digital literacy; and the use of assistive technology.
- Substantial revision to Chapter 12, Informatics, addresses the promoting of interoperability as the natural progression from meaningful use, the role of de-identified data in interoperability, and technology trends including the digital divide as it applies to telemedicine.
- Revisions to other chapters include an explanation of the European General Data Protection Regulation and the California Consumer Privacy Act in Chapter 3, Legal Issues; discussion of the strengthening of patient rights in the home health care context in Chapter 4, Ethical Standards; new material on information governance in Chapter 5, Health Care Data Content and Structures, and Chapter 12, Informatics; and new material on the use of data dashboards as part of data presentation discussion in Chapter 8, Health Statistics.

INSTRUCTOR AND STUDENT COMPANION SITES

Additional instructor and student resources for this product are available through an online companion site. Instructor assets include an Instructor's Manual, PowerPoint® slides, and a test bank powered by Cognero®. Student assets include the American Hospital Association's Patient Care Partnership. Sign up or sign in at **www.cengage.com** to search for and access this product and its online resources.

The Instructor's Manual provides answer keys for the Review Questions and Confirm & Clarify Understanding exercises in the text; a curriculum crosswalk for each chapter with links to the AHIMA domains, curricular competencies, and guidance; a summary of each chapter; suggested responses for the Critical Thinking exercises; and additional Enrichment Activities. Materials involving recent changes to patient access to the patient's health information found in the 21st Century Cures Act and additional changes to HIPAA regulations are addressed in selected chapters of the Instructor Manual.

ACKNOWLEDGMENTS

Many persons have played a role in the creation of this textbook, including family, friends, and colleagues. A special thank you is warranted for my family, who showed patience, understanding, and support for the long hours spent on this, my second textbook. My children, Conor, William, and Ryan, spent many hours at libraries, learning the intricacies of research and authorship. My husband, Patrick, whose patience and encouragement sustained me throughout the development of this text, deserves my unending love. Two HIM professionals, Sharon Farley, RHIA, and Patt Petersen, MA, RHIA, provided valuable assistance in the subjects of quality management and statistics, respectively. My appreciation is extended to the reviewers of my manuscript. Your comments aided in strengthening this text.

Dana C. McWay, JD, RHIA

CONTRIBUTORS

The author and publisher would like to acknowledge the following health information management educators for their contributions to the content of this text:

Sharon Farley, RHIA
Contributing material to Chapter 7

Patt Peterson, MA, RHIA
Contributing material to Chapter 8

ABOUT THE AUTHOR

Dana C. McWay, JD, RHIA, is both a lawyer and a health information management professional. With training and experience in both disciplines, experience as a member of the Institutional Review Board at Washington University Medical School from 1992 to present, and experience in converting a paper-based record management system to an electronic record management system, she brings a wide-ranging perspective to this textbook.

Dana serves as the Court Executive/Clerk of Court for the U.S. Bankruptcy Court for the Eastern District of Missouri, an executive position responsible for all operational, administrative, financial, and technological matters of the court. In this capacity, she organized the court's conversion to an

electronic case filing system, resulting in widespread acceptance by end users. This success led to her appointment as member and, later, chair of the Case Management/Electronic Case Filing (CM/ECF) Working Group, an entity within the federal judiciary responsible for providing guidance and assistance in all phases of the development of bankruptcy CM/ECF software releases. She serves on numerous national committees and working groups within the federal judiciary, including those involved in identifying the impact of new legislation upon judicial operations and those involved in advising on the education and training needs of court staff. Prior to this position, she worked as the Chief Deputy Clerk of Court for the U.S. Court of Appeals for the Eighth Circuit, responsible for daily operations of the court.

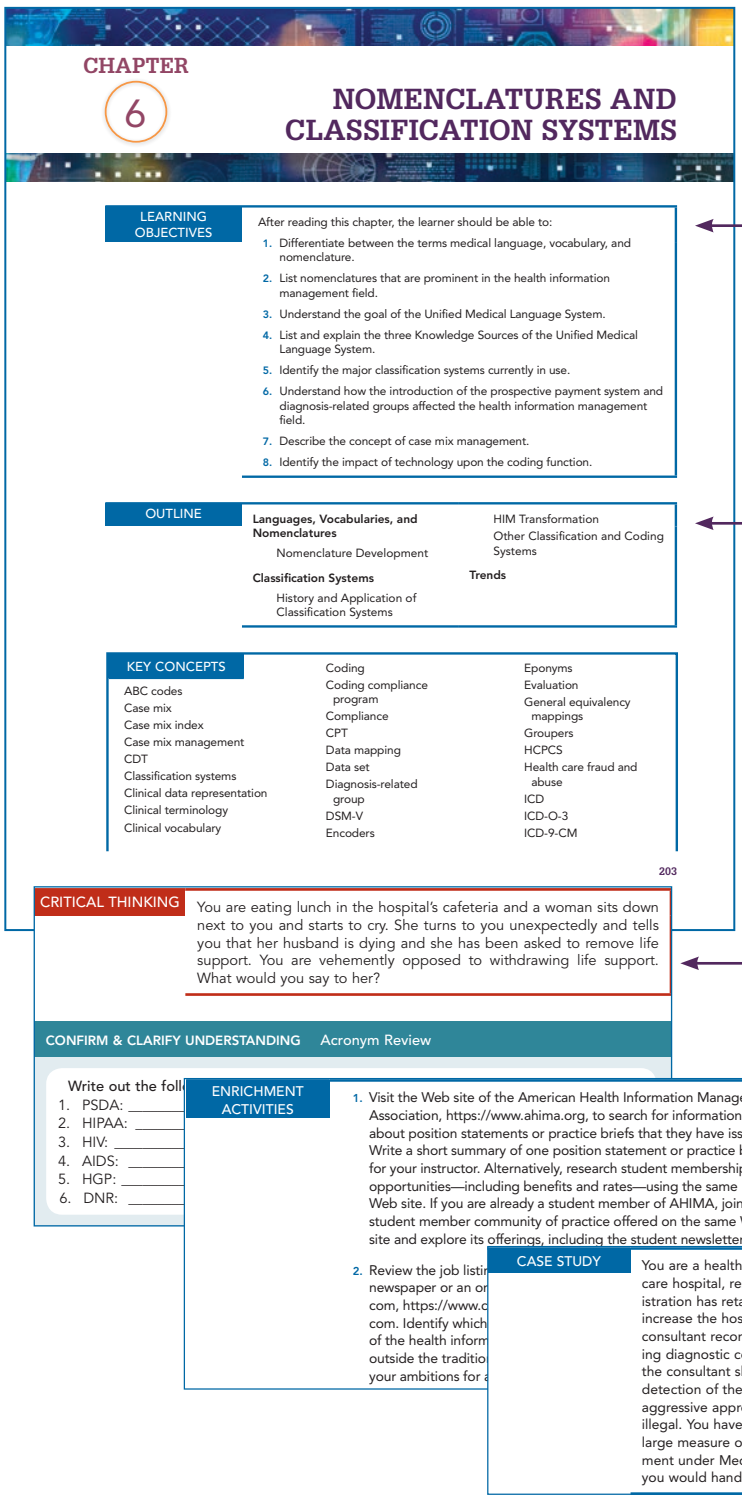
Dana began her legal career as a judicial law clerk to the Honorable Myron H. Bright of the U.S. Court of Appeals for the Eighth Circuit. She then became an associate with the law firm of Peper, Martin, Jensen, Maichel, & Hetlage, a multi-specialty firm located in St. Louis, Missouri. Dana's legal practice encompassed a variety of health law topics, including contracts, medical records, and physician practice issues. She is admitted to practice in both Illinois and Missouri.

Prior to her legal career, Dana worked in health information management as both a director and assistant director of medical records in a large teaching hospital and a for-profit psychiatric and substance abuse facility. She continues to participate in the HIM profession, having served as a project manager for the Missouri Health Information Management Association (MOHIMA) and as a member of MOHIMA's Legislative Committee. On the national level, she served as a director on the Board of Directors of AHIMA and has served as faculty for AHIMA continuing education seminars, a peer reviewer of AHIMA book proposals and texts, a contributing author to AHIMA's HIM Practice Standards, chair and former member of the Professional Ethics Committee, and a member of both the Committee for Professional Development and the Triumph Awards Committee of AHIMA.

Dana is both an author and an editor. Her textbook, *Legal and Ethical Aspects of Health Information Management*, is in its fifth edition. With the Peper Martin law firm, she revised *The Legal Manual to Medical Record Practice in Missouri* in 1991. She has authored numerous other publications and served as co-editor of several online continuing education modules presented by the American Health Information Management Association. She has also presented numerous seminars, serving as faculty and panel presenter. She serves as a professional practice experience site coordinator for health information management students and currently serves on the Advisory Boards of two Health Information Management academic programs. She has served as an adjunct faculty member in the Master's of Health Informatics at Saint Louis University and Logan University; at the Law School of Saint Louis University, and in the PreLaw Studies program at Saint Louis University, and as a guest lecturer at several area colleges and universities, focusing on the intersection of legal issues and health care practices.

Dana is a magna cum laude graduate of the Saint Louis University School of Allied Health Professions, with a degree in medical record administration, and a cum laude graduate of the Saint Louis University School of Law. While in law school, Dana served as the health law editor of the *Saint Louis University Law Journal* and as a faculty research fellow. She is a recipient of the Alumni Merit Award from the School of Allied Health Professions and a Triumph Award (the Legacy Award) from the American Health Information Management Association for her textbook, *Legal Aspects of Health Information Management*. She has received the Missouri Health Information Management Association's Distinguished Member and Outstanding Volunteer Awards. She is the recipient of the Director's Award for Outstanding Leadership to the federal judiciary and the Director's Award for Excellence in Operations-Mission Requirements.

HOW TO USE THE TEXTBOOK



CHAPTER 6

NOMENCLATURES AND CLASSIFICATION SYSTEMS

LEARNING OBJECTIVES

After reading this chapter, the learner should be able to:

1. Differentiate between the terms medical language, vocabulary, and nomenclature.
2. List nomenclatures that are prominent in the health information management field.
3. Understand the goal of the Unified Medical Language System.
4. List and explain the three Knowledge Sources of the Unified Medical Language System.
5. Identify the major classification systems currently in use.
6. Understand how the introduction of the prospective payment system and diagnosis-related groups affected the health information management field.
7. Describe the concept of case mix management.
8. Identify the impact of technology upon the coding function.

OUTLINE

Languages, Vocabularies, and Nomenclatures
Nomenclature Development
Classification Systems
History and Application of Classification Systems
HIM Transformation
Other Classification and Coding Systems
Trends

KEY CONCEPTS

ABC codes
Case mix
Case mix index
Case mix management
CDT
Classification systems
Clinical data representation
Clinical terminology
Clinical vocabulary
Coding
Coding compliance program
Compliance
CPT
Data mapping
Data set
Diagnosis-related group
DSM-V
Encoders
Eponyms
Evaluation
General equivalency mappings
Groupers
HCPCS
Health care fraud and abuse
ICD
ICD-O-3
ICD-9-CM

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CRITICAL THINKING

You are eating lunch in the hospital's cafeteria and a woman sits down next to you and starts to cry. She turns to you unexpectedly and tells you that her husband is dying and she has been asked to remove life support. You are vehemently opposed to withdrawing life support. What would you say to her?

CONFIRM & CLARIFY UNDERSTANDING Acronym Review

Write out the foll
1. PSDA: _____
2. HIPAA: _____
3. HIV: _____
4. AIDS: _____
5. HGP: _____
6. DNR: _____

ENRICHMENT ACTIVITIES

1. Visit the Web site of the American Health Information Management Association, https://www.ahima.org, to search for information about position statements or practice briefs that they have issued. Write a short summary of one position statement or practice brief for your instructor. Alternatively, research student membership opportunities—including benefits and rates—using the same Web site. If you are already a student member of AHIMA, join the student member community of practice offered on the same Web site and explore its offerings, including the student newsletter.
2. Review the job listi
newspaper or an or
com, https://www.c
com. Identify which
of the health inform
outside the traditio
your ambitions for

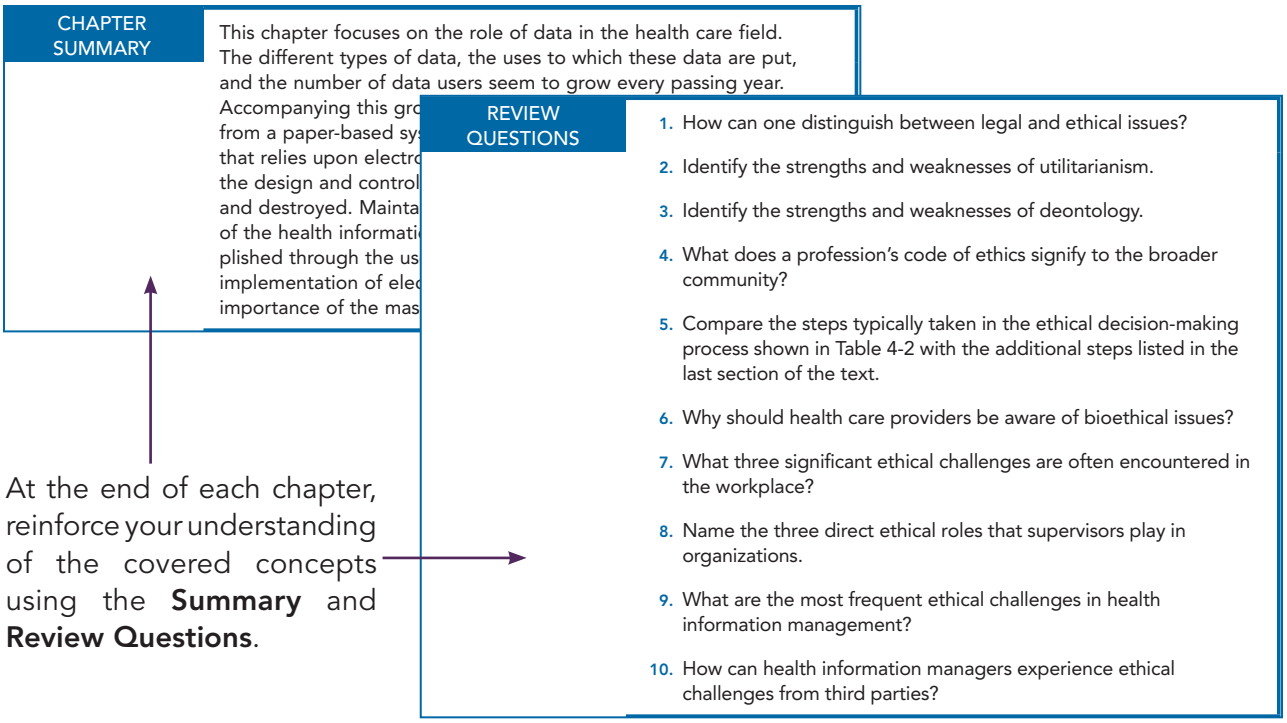
CASE STUDY

You are a health information manager in a financially troubled acute care hospital, responsible for coding functions. The hospital's administration has retained an independent consultant who has promised to increase the hospital's financial reimbursement under Medicare. The consultant recommends that your staff be more aggressive in applying diagnostic codes in order to elevate reimbursement. Furthermore, the consultant shares with you methods that can be used to avoid detection of the aggressive coding scheme. You believe this more aggressive approach is, at minimum, inappropriate—and at worst, illegal. You have further learned that the consultant's fee is based in large measure on a percentage of the hospital's increased reimbursement under Medicare. Identify the ethical challenge and discuss how you would handle this situation.

Learning Objectives at the beginning of each chapter list the theoretical and practical goals of the chapter.

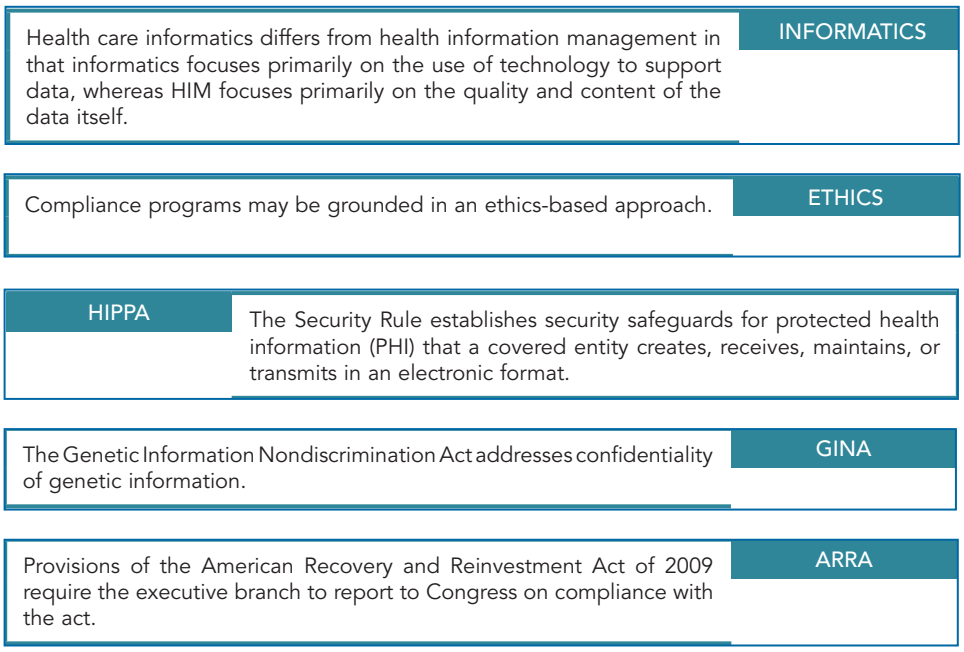
The **Outline** lists major headings to provide a roadmap for the chapter content. Important terms, ideas, and acronyms are presented in the **Key Concepts** list, and they are highlighted the first time they appear in the chapter content.

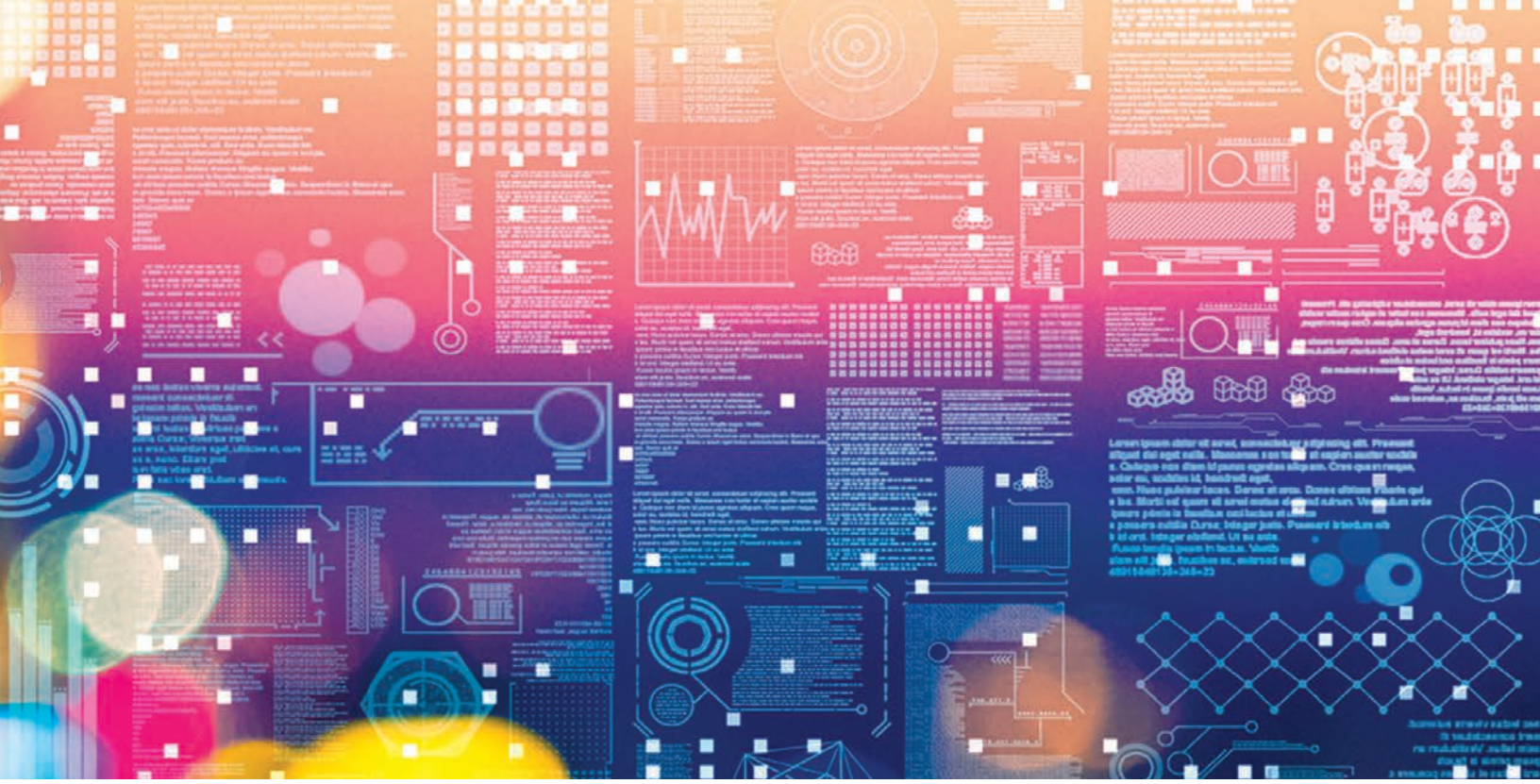
Critical Thinking exercises, Confirm & Clarify Understanding exercises, Enrichment Activities, and **Case Studies** provide opportunities to use critical thinking skills to reflect on the material and relate the concepts to real-life situations.



At the end of each chapter, reinforce your understanding of the covered concepts using the **Summary** and **Review Questions**.

The book highlights the interplay of **informatics, ethics, the Health Insurance Portability and Accountability Act (HIPAA), American Recovery & Reimbursement Act (ARRA), and Genetic Information Nondiscrimination Act (GINA)** with the subject matter of each chapter in special boxes.





PART

1

INTRODUCTION TO HEALTH INFORMATION MANAGEMENT

CHAPTER 1

HEALTH CARE DELIVERY SYSTEMS

LEARNING OBJECTIVES

After reading this chapter, the learner should be able to:

1. Trace the historical development of the health care delivery system in early times.
2. Describe the four-stage progression of the health care delivery system in the United States.
3. Describe the increase in stature of hospitals after World War II.
4. Explain the standardization movement of the early 20th century.
5. Define the term *accreditation* and explain its significance to health care organizations.
6. Compare and contrast the federal government's role in health care during stages three and four.
7. Define the concept of managed care and differentiate between the three main types.
8. Trace the historical development of public, mental, and occupational health.
9. Compare and contrast professional associations, voluntary health agencies, philanthropic foundations, and international health agencies.
10. Differentiate between the variety of settings where health care is delivered.
11. Compare and contrast physicians, dentists, chiropractors, podiatrists, optometrists, physician assistants, nurses, and allied health professionals.
12. Understand the organization of a hospital's medical staff, the importance of its bylaws, and the use of the credentialing process in granting clinical privileges.

OUTLINE

Historical Development

- Early History
- Health Care in the United States
- Public Health
- Mental Health
- Occupational Health

Health Care Delivery Systems

- Professional Associations
- Voluntary Health Agencies
- Philanthropic Foundations
- International Health Agencies
- Variety of Delivery Systems

Medical Staff

- Medical Staff Organization
- Bylaws, Rules, and Regulations
- Privileges and Credentialing

KEY CONCEPTS

- Accountable care organization
- Accreditation
- Adult day care services
- Allied health professional
- Ambulatory health care
- Block grants
- Board certified
- Bylaws
- Capitation
- Chiropractor
- Clinical privileges
- Community mental health care
- Complementary and alternative medicine
- Continuum of care
- Credentialing process
- Dentist
- Fee for service
- Fringe benefits
- Generalists
- Health insurance exchange
- Health savings accounts
- HMO
- Home health agency
- Hospice care
- Hospital
- IPA
- International health agencies
- Licensing
- Long-term care facility
- Managed care
- Medicaid
- Medical staff
- Medical staff coordinator
- Medicare
- Mental health
- Mental illness
- Mobile diagnostic services
- Nurse
- Nurse practitioner
- Occupational health
- Optometrist
- Outsourcing
- Palliative care
- Philanthropic foundations
- Physician
- Physician assistant
- Podiatrist
- PPO
- Primary care
- Public health
- Quaternary care
- Registration
- Regulations
- Rehabilitation care facility
- Respite care
- Rules
- Secondary care
- Specialists
- Surgical assistant
- Tertiary care
- Tracer methodology
- Voluntary health agencies

INTRODUCTION

The health care delivery system of the 21st century is both varied and complex. No one organization or entity is responsible for delivering all health care in the United States. It is important to understand the origins of the health care delivery system in the United States so that the relationships between organizations, entities, and health care professionals becomes clear. This chapter provides that understanding through an overview of the historical development of the health care delivery system, both in the United States and other regions of the world. Some focus is given to specified areas of health care, including public health, mental health, and occupational health. A discussion of the organizations, entities, and professionals who deliver health care services and the settings in which they work follows, allowing the learner to better understand the complexity of health care. A section concerning a hospital's medical staff explains its organization, its governing mechanisms, and the credentialing process. Integrated as appropriate within the entire chapter is a discussion of the influences of technology, financing concerns, and the role of the federal government in the health care delivery system.

HISTORICAL DEVELOPMENT

The number and quality of professionals, organizations, and entities involved in health care has varied significantly over time. In large measure, this variety is attributable to the knowledge of diseases and their causes possessed by individuals and communities. With the advent of technology and advancements in medicine, an ever-expanding knowledge base has resulted in more, rather than less, complexity in health care.

Early History

To understand the development of health care in the United States, one must first look to the development of health care in earlier times and in other regions of the world. Anthropological studies have helped to trace health care back thousands of years. Table 1-1 illustrates the early history of health care.

In primitive times, human society responded to disease in one of three ways. First, humans looked to nature for answers, determining that disease was a result of offended forces of nature such as storms, volcanic eruptions, and earthquakes. Second, they looked to the supernatural for answers, determining that disease may be a way of "possessing" human beings. Third, they looked to the offended spirits of gods or the dead, concluding that disease was a logical result of any offense incurred. In response to any of these three ways, primitive peoples treated disease with prayers, offerings, religious ceremonies, diet, or medicinal herbs. Furthermore, they attempted to frighten demons—and, therefore, disease—away with dancing, drumming, and fearful masks. They employed resources such as amulets, charmed stones, and songs in efforts to banish disease.

As humans made the connection between cause and effect, treatments evolved to improve or cure disease. A medicine man or shaman employed methods such as applying warm ashes to induce sweating, applying a tight band around the head to treat a headache, and bandaging the chest to the point of partial immobilization to treat tuberculosis. Man incised wounds to remove foreign bodies such as stones and splinters, doing so by sucking out the foreign body. Fractured bones were splinted with stiffened mud bandages or tree branches. Midwives became recognized figures among primitive peoples.

As civilization emerged, instructions relating to health care were written down. The earliest known written materials—stone tablets, papyri, and inscriptions on monuments and tombs—have

Table 1-1 Early History of Health Care

Characteristics	Primitive Times	Early Civilization	Greek Civilization
Health Care Providers	Medicine man or shaman	Physicians/dentists working under authority of gods	Physicians such as Hippocrates
Communication Methods	Drawings	Early writings	Codification of early medical practice
Societal Views of Health Care	Nature/supernatural/ offended spirits	Magical/religious approach	Rational/scientific approach

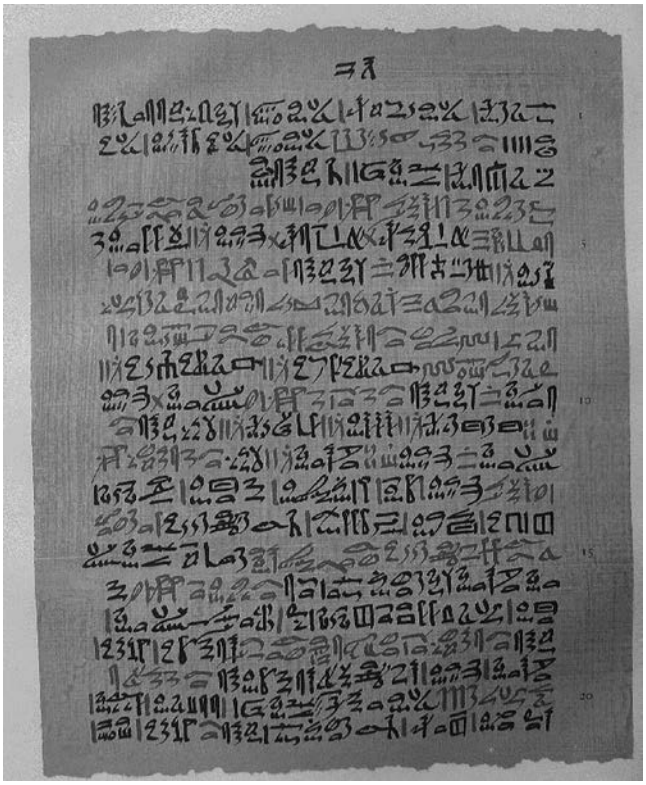


Figure 1-1 A Page of The *Ebers Papyrus*; The Lower Part is a Prescription
Courtesy of the U.S. National Library of Medicine, National Institutes of Health, https://www.nlm.nih.gov

been found in Egypt, dating to 2700 B.C. These materials recognize the existence of physicians and dentists working under the authority of gods. As such, physicians were considered priests who received training in temple schools in areas such as diagnosis and treatment. Priests followed the case approach beginning with a preliminary diagnosis, examination of the patient, diagnosis and prognosis, and indication of treatment measures to be employed. An example of such an approach can be found in the famous *Ebers Papyrus* illustrated in Figure 1-1.

Although this description speaks to a rational approach to medicine, a magical approach to medicine was involved as well. Because of the prevailing belief that disease was caused by demons and evil spirits, curing of disease could only occur through the intervention of the gods. Accordingly, physicians in ancient Egypt recognized one god over all others as the most important with regard to healing—Imhotep, who they referred to as the god of medicine.

As Egyptian civilization declined, other civilizations adopted and expanded the Egyptians' knowledge of medicine. Arabians refined the concept of pharmacology, and, in another part of the world, the Chinese did the same. The Jewish people became preeminent in the area of public hygiene. The Babylonians codified fees for physician practice and punishments for malpractice in the Hammurabi Code. Eventually, each of these civilizations declined or dispersed.

The next notable civilization to make an impact on medicine was the Greeks, the forerunners of modern Western medicine. The Greeks were the first to reduce and then shed the supernatural view of disease and approach medicine from a rational and scientific point of view. Among the

I swear by Apollo Physician and Asclepius and Hygieia and Panaceia and all the gods and goddesses, making them my witnesses, that I will fulfill according to my ability and judgment this oath and this covenant:

I will apply dietetic measures for the benefit of the sick, according to my ability and judgment; I will keep them from harm and injustice.

I will neither give a deadly drug to anybody if asked for it, nor will I make a suggestion to this effect. Similarly I will not give to a woman an abortive remedy. In purity and holiness I will guard my life and my art.

I will not use the knife, not even on sufferers from stone, but will withdraw in favor of such men as are engaged in this work.

Whatever houses I may visit, I will come for the benefit of the sick, remaining free of all intentional injuries, of all mischief and in particular of sexual relations with both female and male persons, be they free or slaves.

What I may see or hear in the course of the treatment or even outside of the treatment in regard to the life of men, which on no account one must noise abroad, I will keep to myself holding such things shameful to be spoken about.

If I fulfill this oath and do not violate it, may it be granted to me to enjoy life and art, being honored with fame among all men for all time to come; if I transgress it and swear falsely, may the opposite of all this be my lot.

Figure 1-2 Hippocratic Oath
Courtesy of the U.S. National Library of Medicine, National Institutes of Health, https://www.nlm.nih.gov

greatest Greek physicians was Hippocrates, from whom the famous oath originates (see Figure 1-2). Hippocrates is famous for codifying medicine through the publication of numerous books, promoting medicine as one of the highest ethical and spiritual endeavors, and establishing the principle that knowledge of disease can be obtained from careful observation and notation of symptoms.

Between the 6th century and the 16th century, little advancement in medicine occurred. Alchemy, magic, and astronomy were prominently identified with medicine. To the extent that medicine existed as we now understand it, the clergy were its practitioners. Religious orders established hospitals to offer hospitality and refuge to old, disabled, and homeless pilgrims. Soon a vast network of hospitals emerged, mainly offering rest and shelter rather than treatment.

Toward the end of the 16th century, a renaissance occurred in many areas of culture, including medicine. Advancements were made in understanding the anatomy of the human body, clinical observations of diseases, and bedside teaching methods. Efforts were made to not only identify disease but to discover specific remedies that could be applied to the patient. The concept of vaccinations was introduced, along with the microscope. Although positive developments were made, medicine still used ineffective methods such as bloodletting, induced vomiting, and the administration of large doses of toxic drugs.

Health Care in the United States

The delivery of health care in the United States has progressed in four stages, as illustrated in Table 1-2. Until 1900, health care delivery was primarily a loose collection of efforts made by individual physicians who worked independently of one another. These physicians were by and large poorly trained, often obtaining their skills through an apprenticeship with an older physician. Gradually, they began taking courses at medical colleges, which grew in number but varied in quality and sophistication. The majority of a physician's time was spent at patients' homes or in the office, with very limited time spent at hospitals.

During this same time frame, hospitals were established, providing the first visible institutions around which health care services could be organized. Early examples include the Pennsylvania

Table 1-2 Stages in the Delivery of Health Care in the United States

Characteristics	1776–1900	1900–WWI	WWII–1980	1980–Present
Health Care Providers	Physicians who worked independently of one another/ limited number of hospitals, primarily serving the sick poor	Improved scientific knowledge of physicians; new hospital services; increased hospital use	Development of medical specializations	Rapid growth of allied health professionals
Influence of Technology	Limited	Beginning growth in science and technology	Major advances in science and technology	Use of sophisticated technology in diagnostic and therapeutic procedures
Organizational/ Societal Efforts to Improve Health Care	Limited in number and scope	Reform of medical schools/ standardization movements in hospitals	Role of federal government in financing bio-medical research and hospital facilities	Role of federal government in containing costs; emergence of managed care industry
Role of Patient	Little factual knowledge	Beginning steps in patient education	Awareness of health care as a political issue; increased use of health insurance	Advent of consumer culture

Hospital in Philadelphia, Bellevue General in New York City, Charity Hospital in New Orleans, and Massachusetts General in Boston. These hospitals and others primarily served the sick poor who could not be cared for at home. They were funded by private beneficiaries, endowments, and donations. For those patients with financial means, the optimum place for treatment was one's home, because hospitals were seen as dirty, crowded, and disease ridden.

During this time, two organizations formed that resulted in long-term improvements in the delivery of health care. The American Medical Association (AMA), created in 1847, began with efforts to improve the poor quality of medical education and examine the questionable ethics of practicing physicians. Although no longer involved in the accreditation of medical schools, the AMA continues to center its efforts on promoting the art and science of medicine, improving public health, influencing and creating health care policy, and serving the professional needs of its members, including continuing medical education. Similarly, the American Hospital Association (AHA) began in 1848 with efforts to improve the public welfare by providing better health care in hospitals. It continues those efforts to this day, representing hospital interests in legal and legislative matters, funding and conducting research and educational programs, and maintaining data on hospital profiles.

In addition to formal organizations, a new movement swept through the country at the end of the 19th century: mental health reform. This movement posited that insanity was a medical or mental disorder that could be managed through the provision of health care services. The mentally ill were no longer housed in poorhouses or prisons but rather in institutions often funded and managed at the state level. Unfortunately, these state-run institutions fell into disrepute as inadequate funding caused overcrowding and deplorable living conditions.

The second stage of medical improvements began in the early 1900s, with exciting changes emerging from research laboratories and medical school reform. Major scientific advances were achieved in the research lab, including the discoveries of insulin, penicillin, and the role vitamins play in disease prevention. Significant advances were achieved in obstetrics and surgery, making these areas of medicine safer for patients.

Reforms of medical schools occurred as the result of the Flexner Report, a study undertaken by Abraham Flexner and funded by the Carnegie Foundation for the Advancement of Teaching in 1910. This report indicated serious deficiencies in medical education and recommended revisions of medical school curricula and affiliation with universities. As a result, numerous proprietary medical schools closed and the remaining schools increased university affiliation. In the remaining medical schools, emphasis was placed on training physicians to be scientists in addition to practitioners.

Licensing of physicians in large numbers also started during this time period. **Licensing** refers to a right conferred by a governmental entity to practice an occupation or provide a service. Licensing controls the number of individuals who are permitted to practice an occupation or provide a service. Licenses are generally granted to individuals who present proof of specified educational requirements and pass an examination administered by an appropriate state board. Those individuals who practice an occupation or provide a service that is subject to licensure but do not possess a license do so at their own risk, as that practice or provision of service is considered illegal. Each state determines which occupation or service is subject to licensure; occupations commonly subject to licensure include medicine, osteopathy, nursing, dentistry, and podiatry, among others.

Although physicians spent a majority of their time with patients in their offices or patients' homes, a trend toward the use of hospitals emerged in the first three decades of the twentieth century. Technology began to influence the science of medicine. Because technology was relatively expensive, it became important to concentrate it in hospitals so that a large number of physicians and their patients could gain access to it. As a result, hospitals began to change, offering services unavailable to patients at home or anywhere else.

A movement toward standardization of hospital care soon ensued. This movement was led by the American College of Surgeons (ASC), an organization formed in 1913 to improve patient care. The ASC began its Hospital Standardization Program four years later, resulting in the adoption of the Minimum Standards document in 1919. This document identified the standards deemed essential to proper care and treatment of hospital patients. Among the standards were the requirement of an organized medical staff, the existence of certain diagnostic and therapeutic facilities, and the creation of a written health record for every patient.

The standardization movement also led to expansion of the licensing process beyond individuals to health care facilities. State regulatory bodies developed basic minimum standards for health care facilities to meet. Those health care facilities that met the established standards could obtain a license and provide health care services to the public. As with individuals, health care facilities that provided services to the public without a license did so at their own risk; their actions were illegal.

As World War II began, health care in the United States moved into its third stage. Initially, the focus rested on the need for massive mobilization of health care workers to treat the wounded and solve war-related problems. Soon, wartime developments—such as the treatment of patients with antibiotics, new surgical techniques to treat burns and trauma, and new approaches to the transportation of the sick and wounded—were adopted by physicians treating the civilian population.

As direct patient care services improved, so did the stature of hospitals. A combination of factors influenced this increase in stature: advances in medicine and technology, the abandonment of the public's view that hospital care was mainly for those too poor to afford home care, the role of the federal government in financing biomedical research and hospital facilities, and the influx in availability of private health insurance. With this change in stature came a change in expectations. It was no longer merely enough that a hospital emphasized caring for the patient. Rather, the public expected hospitals to integrate advances in medicine and technology made in research laboratories into their daily work so that patients were both cared for and cured. This improvement in stature and increase in expectations resulted in the hospital becoming the central institution of the health care delivery system.

As scientific advances increased rapidly, the knowledge required of health care providers to practice competently soared. Accordingly, a new trend emerged among physicians: the need for specialty practice. Whereas before World War II, the vast majority of physicians were general practitioners, after World War II the vast majority of physicians specialized in some area of medicine or surgery. Nurses and other health professionals were similarly affected by scientific advances. Training became more oriented to a scientific basis and many training programs were affiliated with universities. For all health care providers, the availability of new technologies resulted in a more complex knowledge base from which to practice.

Significant developments affecting the stature of hospitals merit further discussion. During the 1950s, factors such as the increased specialization of physicians and health professionals, the increased use of technology, advances in medical science, and the sophistication of hospitals impacted the efforts to standardize medical care. In recognition, a new concept emerged: accreditation.

Accreditation is the process by which an external entity reviews an organization or program of study to determine if the organization or program meets certain predetermined standards. In recognition of meeting those standards, the organization or program is said to be accredited. The process used is the survey method, and a wide variety of health care functions considered crucial to patient care are surveyed. Health care organizations and programs have strong incentives to become accredited, because accreditation status is linked with the ability to receive financial reimbursement for services and recognition of the delivery of high quality services.

Two organizations played the largest roles in health care accreditation during this period: the Joint Commission (JC), formerly known as the Joint Commission on Accreditation of Healthcare Organizations (JCAHO), and the American Osteopathic Association's (AOA) Healthcare Facilities Accreditation Program (HFAP). The JC adopted the Hospital Standardization Program of the ACS and played a major role in the improvement of the quality of health care; similarly, the HFAP played a crucial role in accrediting osteopathic hospitals. Both the JC and the AOA accredit health care entities beyond the hospital setting, such as behavioral health, home health, long-term care, critical access hospitals, clinical laboratories, and ambulatory care settings. Additional information concerning the role of accrediting organizations can be found in Chapter 3, "Legal Issues."

CRITICAL THINKING

While health care organizations have strong incentives to become accredited, they may face barriers to achieving accreditation. Can you identify any barriers a health care organization may face in its quest to achieve accreditation from a national organization?

Equally important was the rise of the private health insurance industry. Among the most prominent was the development and progression of the Blue Cross Blue Shield (BCBS) insurance companies. These nonprofit, community-based health plans insured against hospital costs (Blue Cross) and physician and related services costs (Blue Shield). These plans were offered to employers and industry as **fringe benefits**, meaning that the benefits were supplemental to the wage and salary offered to the employee. As the BCBS programs increased in popularity, commercial insurance carriers entered the market, and a majority of Americans were soon covered by some form of health insurance.[1] This rise in insurance coverage in the 1940s/1950s time frame resulted in a majority of Americans receiving health care services in an economical fashion. It also resulted in the emergence of the health care sector as a significant part of the American economy.

During this same time period, the federal government began to assume major responsibility for combating health problems. It did so through a series of initiatives designed to organize and finance health care.

In 1946, Congress passed the Hospital Survey and Construction Act, commonly known as the Hill-Burton Act, named after the two sponsors of the legislation. The Hill-Burton Act provided funding for construction of hospitals and other health care facilities throughout the United States. It was passed in response to the realization that existing hospitals required substantial modernization and that new hospitals were needed in the rural and suburban communities located outside the urban core areas. Administered through a joint federal-state process, the Hill-Burton Act resulted in a wave of hospital construction and, later, renovation.

The government began to respond to political pressures that charged that the public's health, education, and welfare were the responsibility of the federal government. In 1953, Congress created a cabinet-level department called the Department of Health, Education, and Welfare (DHEW). Congress charged this department with coordinating federal efforts in these three areas and provided it with the authority to promulgate rules and regulations implementing federal legislation.

Prior to the 1960s, those portions of the general population who had health insurance obtained it as a fringe benefit of their employment. Two segments of the general population were excluded from this development: the elderly who were no longer employed, and the poor who were unemployed or employed without fringe benefits such as health insurance. In response, the federal government amended the Social Security Act in 1965 to provide two government-subsidized health care programs: Medicare and Medicaid. Formally known as the Health Insurance Act for the Aged, **Medicare** is the program designed to provide financing for health care for all persons over the age of 65, regardless of financial need. It is not limited to health care treatment for the aged, but serves the population under age 65 with certain disabilities and those suffering from end-stage renal disease, regardless of age. Formally known as the Medical Assistance Program, **Medicaid** is the program designed to provide financing for health care for poor or impoverished persons. Medicaid coverage is considered broader than Medicare coverage and includes services for pregnant women, parents with dependent children who have no way to pay for health care, low-income families, the elderly needing long-term care, and the disabled population. Medicare

and Medicaid markedly changed the face of health care in that these were the first broad-scale efforts to recognize the receipt of health care as a right of Americans.

As a result of increased access to medical care, the rise and complexity of private health insurance, and the Medicare and Medicaid programs, an ever-increasing flow of private and public funds moved into the health care arena. As health care costs escalated, it became more difficult to finance the delivery of health care at prior levels. The strain on the American economy was such that changes were needed by the end of the 1970s. Accordingly, the fourth stage in the delivery of health care emerged, one associated with restrictions in growth, resource limitations, and reorganization of the systems used to finance and provide health care.

The first recognized effort to control health care costs came from the federal government, the largest financier of health care in the United States. In 1982 Congress passed the Tax Equity and Fiscal Responsibility Act (TEFRA), which established a mechanism for controlling the costs of the Medicare program. TEFRA revolutionized the financing of health care services by introducing the concept of a prospective payment system (PPS) that set limitations on reimbursement based on the use of diagnosis-related groups (DRGs). State departments of health soon followed, revising the reimbursement program for the Medicaid system and adopting the PPS. Private health insurers soon became convinced that the PPS could assist them in containing costs, and these insurers either adopted or modified the system accordingly. Additional information concerning prospective payment systems can be found in Chapter 16, "Reimbursement Methodologies."

Another significant development was the emergence of the managed care industry in the 1980s and 1990s. The concept of **managed care** is that a defined, enrolled population will receive health care services through either a prepayment or discounted fee-for-services arrangement. The focus of managed care is to approach health care services by facilitating cost containment and controlling use while maintaining a high quality of care.

Three main types of managed care arrangements have proliferated in the United States: health maintenance organizations (HMOs), independent practice associations (IPAs), and preferred provider organizations (PPOs). The main points of each type of arrangement are listed in Table 1-3. An **HMO** is a prepaid, organized system for providing comprehensive health care services within a geographic area to all persons under contract, emphasizing preventive medicine. HMOs use primary care physicians to determine the type and amount of care to be given to a patient. The primary physician serves as the "gatekeeper" who authorizes patient access to specialists and other services as necessary. This limitation on patient choice is designed to curb costs. HMOs almost exclusively use the **capitation** method when paying physicians, meaning that a fixed amount per person is paid for health care services, regardless of the quantity or nature of the services rendered. An **IPA** is a community-based group of independent practitioners who contract to provide care for prepaid, enrolled individuals. Some IPAs pay participating physicians on a capitated basis, and others on a **fee-for-service** basis, in which payment is made for each service provided. A **PPO** consists of a network of participating hospitals, physicians, medical groups, and other providers who contract with a sponsor, such as an insurance company or employer, to provide services to those enrolled in the PPO. Patients can choose among any of the health care providers within the network for their care and do not need the permission of a gatekeeper physician before seeking care from a specialist. Providers are reimbursed on either a contracted-fee basis using an established fee schedule or a defined, preestablished discount basis using the provider's usual and customary fees as a starting point for discount. Additional information concerning managed care, including its origins and current trends, can be found in Chapter 16, "Reimbursement Methodologies."

The development of the consumer culture also influenced health care services. The consumer culture emerged as a result of several circumstances: increased levels of education among the

Table 1-3 Managed Care Arrangements

Title	Health Maintenance Organization (HMO)	Independent Practice Association (IPA)	Preferred Provider Organization (PPO)
Structure	Organized system	Community-based group of independent practitioners	Network of participating hospitals, doctors, medical groups
Payment Means	Capitation method	Capitation method or fee-for-service basis	Contracted fee basis: established fee schedule or defined, preestablished discount basis

U.S. population, dissatisfaction with the way things were run, and inaction or lax oversight by regulatory agencies. The consumer culture focused on health care and began to demand higher quality. Consumer interests in costs of care, preventive care, sophisticated technology, diagnostic and therapeutic procedures, and patient rights have combined to force a more comprehensive approach to health care.

New developments have arisen in the beginning of the 21st century that influence the delivery of health care. Much discussion has focused on the uninsured and underinsured members of society and how they can receive medical care in a financially prudent manner. Some commentators have suggested using **health savings accounts** (HSAs), a means of allowing individuals who buy high-deductible insurance coverage to save money for out-of- pocket costs in tax-free accounts. These insurance plans typically have lower monthly premiums than would be standard in the industry but may require patients to pay large amounts of money before the insurance plan covers any cost. Other commentators advocate the creation of national health insurance, with either a single payer (e.g., the federal government) or a limited number of payers responsible for financing the system. Supporters see national health insurance as the way to provide access to health care services to underserved populations.

Another focus rests on the changes in accreditation processes. These changes have moved the emphasis from evaluating compliance with regulations to evaluating how actual patient care experiences comply with established standards. Accrediting agencies sometimes visit health care facilities unannounced partway through the established accreditation cycle, as a means to evaluate operational performance. The JC employs **tracer methodology**, a means of tracing the delivery of a patient's care through the health record as a way to analyze the health care provider's care, treatment, or service to the patient. The JC often interviews members of the health care team as well as the patient. This methodology is designed to provide a more meaningful measure of a health care facility's strengths and weaknesses in delivering patient care. Such changes in accreditation processes are thought to spur health care facilities to engage in continuous improvement activities as opposed to only those activities designed to improve the facility when notice of an impending visit is announced.

HIPPA

The Security Rule establishes security safeguards for protected health information (PHI) that a covered entity creates, receives, maintains, or transmits in an electronic format.

A third focus rests on the use of outsourcing in health care. **Outsourcing** refers to the delegation of non-care operations from internal production of a business to an external entity that specializes in an operation. Some outsourcing is performed offshore (i.e., out of the country), typically overseas. Much of the debate over outsourcing centers on the relationship between the functional area to be outsourced and the quality required of the work performed. Many in the health care field perceive that in-house staff are better at meeting performance and quality standards because of their ownership of the function and their loyalty to the facility as compared to those who are not employed by the facility. Areas that have gained some foothold in outsourcing among health care providers without causing much controversy include pest management services, record destruction services, and software development. Two functional areas that have engendered some criticism include the reading of radiology images remotely and the transcription of physician dictation remotely. Criticism of these forms of outsourcing increased following the discovery that the transmission of images and data were not always performed using encryption or similar technologies to guarantee security, and that sensitive personal identifiers were not redacted before outside contractors received the data. These discoveries pose implications concerning the Security Rule of the Health Insurance Portability and Accountability Act (HIPAA). The Security Rule imposes standards that specify the use of integrity controls and encryption technology when transmitting protected health information (PHI) electronically. Because failure to comply with these standards can result in penalties, health care facilities that decide to engage in outsourcing of these functions are heavily burdened to establish compliance. Additional information concerning HIPAA is found in Chapter 3, "Legal Issues," while information specific to the Security Rule is found in Chapter 11, "Information Systems and Technology."

One exciting focus of the government sector in the 21st century is the establishment of the Office of the National Coordinator for Health Information Technology (ONCHIT) within the U.S. Department of Health and Human Services. ONCHIT's mission is to lead the development and nationwide implementation of an interoperable health information technology infrastructure as a means to improve the quality and efficiency of health care and the ability of consumers to manage their own care and safety. ONCHIT sponsors numerous initiatives to promote use of information technology in the health care field, including adoption of an interoperable electronic health record (EHR) for every American, developing standards for use with the EHR, assisting in formulation of regulations governing the EHR and e-prescribing, and working with nongovernmental entities on projects. Some of these projects impact both the health care field and the health information management profession in particular, including a project focused on combating health care fraud and abuse through the use of automated coding software. More details about the use of this type of software to combat fraud and abuse can be found in Chapter 3, "Legal Issues."

Another focus of the 21st century is the development of health insurance exchanges. A **health insurance exchange** (HIX) is a mechanism that creates a marketplace for consumers to compare insurance offerings according to common rules and to purchase a plan that best fits their needs. Several forms of health insurance exchanges have been in existence for some time, including the Medicare Advantage Plans and the Medicare Prescription Drug Plans. Newer health insurance exchanges will be developed at the state level pursuant to provisions of the Patient Protection and Affordable Care Act. Additional details concerning health insurance exchanges can be found in Chapter 16, "Reimbursement Methodologies."

The combination of changes in financing, the emergence of managed care with its emphasis on both cost control and patient care, the rise of a consumer culture, the changes in the accreditation process, and the use of outsourcing in non-care operations has resulted in a cultural shift in health care delivery. Whereas early U.S. health care delivery emphasized the care of patients in homes or of the poor in charity hospitals, with virtually no use of technology, the current state of health

CONFIRM & CLARIFY UNDERSTANDING Acronym Review

Write out the following acronyms.

1. PHI: _____
2. HIPAA: _____
3. ONCHIT: _____
4. EHR: _____
5. AHIMA: _____
6. AMA: _____
7. AHA: _____
8. BCBS: _____
9. DRG: _____
10. DHHS: _____

care delivery recognizes the limitations of resources available for patient care and looks to cost containment methods to achieve a more comprehensive approach.

Public Health

Similar to the historical developments described previously, public health has evolved over time. **Public health** is a health care discipline dealing with the community at large, focused on protecting and improving community health by organized community effort and preventive delivery of medical, social, and sanitary services. Today, the field of public health concentrates on curing communicable and chronic disease, preventing illness, subduing environmental hazards, and providing overall health services to the community.

The concept of public health had its beginnings in the 17th century with the emergence of scientific work focused on biology and medicine. As knowledge of those fields gradually unfolded over the next three centuries, scientists and physicians applied that knowledge to health problems related to the means of achieving better sanitation, the growing of food, and the conditions of work. Scientists and physicians also applied the knowledge to the struggle against communicable diseases, the major cause of death among the U.S. population. Quarantines, sanitariums, and asylums were outgrowths of the application of this knowledge.

From the beginning of the 20th century through 1945, the public health field evolved further. In addition to the work of scientists and physicians, political entities such as local and state health departments came into existence. These health departments provided a mechanism to centralize and coordinate individual efforts in order to maximize the benefit to a given geographic region. Efforts to control communicable diseases became more sophisticated with the addition of systems to report these conditions and awareness campaigns to educate the public of the potential for preventing some diseases. Public health efforts expanded into operating clinics to provide health care for the poor and to detect and treat communicable diseases (e.g., tuberculosis and venereal disease). New surveillance and control techniques improved the handling of food, water, and milk. The concept of recording vital statistics came into its own, providing a wealth of information to track trends in health care.

As rapidly as public health expanded in the first half of the 20th century, it expanded even more rapidly in the latter half. The concept of using political power to combat health problems

achieved prominence after World War II. In addition to the increased authority of state and local health departments, the federal government became involved in policy making and funding issues related to public health. At the educational level, the discipline of public health developed into graduate-level degree programs across the nation, focusing attention beyond traditional notions of public health.

This expansion of public health beyond traditional notions was widely embraced. Public health's growing focus included planning and cost issues such as access to health care and health insurance coverage. In addition to communicable diseases, it expanded into the consideration of chronic diseases such as cancer and heart disease, leading causes of death in the late 20th century. Public health began to focus on the social and behavioral aspects of life that affect a person's health—for example, addictive diseases, contemporary stresses, and emotional instability. It even began to explore areas previously overlooked, such as environmental hazards and child abuse.

Significant advancements in public health have emerged from both the public and private sectors. Experimental laboratories and clinical treatment centers have developed vaccines and new medicines to prevent and control diseases. Technology has assisted advances in physiology, virology, and biochemistry. Organ transplants, gene therapies, laser beam surgical techniques, and kidney dialysis are some examples of such technological advancement.

At the federal level, the cause of public health is overseen by the work of the U.S. Department of Health and Human Services (DHHS) and its agencies. For example, the Centers for Disease Control and Prevention (CDC) administer programs for the prevention and control of communicable and vector-borne diseases and other preventable conditions. The Food and Drug Administration (FDA) guards the safety and effectiveness of foods, drugs, medical devices, and cosmetics. The National Institutes of Health (NIH) supports basic and applied research in the cause, treatment, and prevention of disease. The Center for Medicare and Medicaid Services (CMS) administers the Medicare and Medicaid programs, and the Agency for Healthcare Research and Quality (AHRQ) administers programs concerned with the assurance of quality of health care.

Public health remains a strong force at the state and local levels. State health departments not only enforce health laws and regulations, they are concerned with policy, planning, legislation, financial support, research, and evaluation. At the local level, a public health agency provides direct services to the public by operating clinics, administering immunization programs, inspecting and licensing certain public facilities, and monitoring air pollution, among other services.

Finally, the success of the public health movement can be measured by the impact it has had on the number and causes of death in the United States. The death rate per 100,000 people per year decreased significantly between 1900 and 2000. Before the 20th century, epidemics of acute infectious disease were the leading cause of death; by the end of the 20th century, chronic diseases were the predominant cause of death. Table 1-4 contrasts the predominant causes of death of these two periods. As a result of advancements brought on by improvements in prevention and treatment, sanitation, and public awareness of causes of disease, the death rate in the United States has declined.

Mental Health

One of the least understood aspects of medicine is mental health care. **Mental health** refers to "the ability to 'cope with and adjust to the recurrent stresses of living in an acceptable way.'"[2] The inability to cope effectively with the recurrent stresses of living is referred to as **mental illness**. As with other areas of health care, mental health care has evolved over time from an area of limited understanding to a more complete field. Table 1-5 describes this development.

Table 1-4 Predominant Causes of Death in the United States

1900		2000	
Causes of Death	Crude Death Rate per 100,000 People per Year	Causes of Death	Crude Death Rate per 100,000 People per Year
All Causes	1,719.0	All causes	873.1
Pneumonia and Influenza	202.2	Disease of the heart	258.2
Tuberculosis	194.4	Malignant neoplasms	200.9
Diarrhea, Enteritis, and Ulceration of the Intestine	142.7	Cerebrovascular diseases	60.9
Diseases of the Heart	137.4	Chronic lower respiratory diseases	44.3
Senility, Ill Defined, or Unknown	117.5	Accidents (unintentional injuries)	35.6
Intracranial Lesions of Vascular Origin	109.6	Diabetes mellitus	25.2
Nephritis	88.6	Influenza and pneumonia	23.7
All Accidents	72.3	Alzheimer's disease	18.0
Cancer and Other Malignant Tumors	64.0	Nephritis, nephritic syndrome, and nephrosis	13.5
Diphtheria	40.3	Septicemia	11.3

Source: Information adapted from U.S. National Center for Health Statistics (2020). *Vital Statistics of the United States*, available at https://www.cdc.gov/nchs/products/vsus.htm; Williams, S. J., & Torrens, P. R. (2008). *Introduction to health services* (7th ed.). Clifton Park, NY: Thomson Delmar Learning.

Table 1-5 Historical Development of Mental Health

Primitive Times	• Focus on nature, supernatural, and offended spirits
Middle Ages	• Formation of large institutions to house the mentally ill • Brutal physical treatments, practices of exorcising demons, and burning at the stake
19th Century	• Reform movement • Mental health hospitals founded
20th Century	• Recognition of psychiatry as a profession • Psychotherapy, psychoanalysis, electroshock therapy
21st Century	• Government funding at federal, state, and local levels • Focus on multipronged solutions: prevention, care, rehabilitation, training, research, education

In primitive times, humans tried to understand the causes of physical and mental diseases by looking to nature, the supernatural, and offended spirits. Whereas mankind progressed in its discovery of the causes of many physical illnesses and diseases, progress was not as rapid with respect to mental illness. For centuries, societies viewed persons afflicted with mental illness with fear, allowing those afflicted to remain in society only if they did not cause trouble or disruption. Those who could not comply with society's dictates were often driven away or removed to institutions. In the Middle Ages, large institutions were formed to house the mentally ill, where treatment might include brutal physical treatments, attempts at exorcising demons, and even burning at the stake. Because many viewed mental illness as the result of possession by the devil or as evidence of witchcraft, societal authorities felt justified in treating mental illness in this fashion.

Recognition that mental illness might be the result of a brain disorder occurred during the 16th century. Physicians recorded their observations of behaviors associated with mental illness and classified them into categories such as melancholia. Unfortunately, advances in treatment did not occur in a similar fashion. Those suffering from mental illness received treatments such as bleeding, starving, beating, and purging; nonmedical responses to mental illness included hunting the mentally ill as witches. Mental institutions sometimes used the mentally ill as forms of entertainment, allowing the public to tour institutions for a fee.

Not until the 19th century did medical practitioners begin to question the treatment practices for the mentally ill to an extent that would result in change. One pioneer for change was Benjamin Rush, a medical doctor who wrote the first psychiatric textbook in the United States, *Diseases of the Mind*. In this book, Rush advocated clean living conditions and kind treatment for the mentally ill. In the same century, Dorothea Dix began her crusade for improved treatment after observing deplorable conditions and inhumane treatments. Her efforts resulted in the establishment of mental health hospitals throughout the United States supported by state funds with higher standards of care. Unfortunately, funding never reached adequate levels, resulting in a return to deplorable conditions and overcrowding. Only those fortunate enough to afford private institutions received care that modern society would consider moderately successful.

By the early 20th century, reform movements sweeping many areas of the country addressed the need to improve mental health treatment. Many of the improvements rested on incorporating mental illness into the medical mainstream. The theories and writings of neurophysiologist Sigmund Freud influenced this development, finding their home in the curricula of many medical schools. For generations of physicians, Freud's theories of unconscious thoughts and emotions, along with sexual repression, became accepted as the root of mental illness. Soon, the theories of other physicians such as Alfred Adler and Carl Jung were incorporated into medical curricula, with the terms *psychotherapy* and *psychoanalysis* also introduced into the medical vocabulary.

The military became interested in mental health during the First World War, because some men were considered unable to fight due to mental deficiencies. The federal government, working through the National Committee for Mental Hygiene, developed mechanisms to screen individuals with mental problems and to provide both medical and mental care close to fighting areas. Treatment did not end at the front; the military developed the means to treat soldiers with mental illness in military hospitals and in their homes upon discharge from active service.

New medical therapies were introduced after the war that achieved mixed levels of success. Physicians began employing electroconvulsive therapy (ECT) to improve severe depression and insulin therapy to treat schizophrenia-induced comas. Surgeons performed lobotomies to eliminate violent behaviors. Psychotherapeutic drugs were introduced to alter emotions, perceptions, and consciousness. Combined with the psychotherapies of Freud, Adler, Jung, and others, these activities served to markedly advance mental health care.

Although improvements in mental health care were made during the first half of the century, some setbacks did occur. Many physicians believed in a biological cause for mental illness amenable to prevention and cure, but many other physicians believed that mental illness was the result of hereditary factors. This connection between mental illness and heredity led some physicians to advocate actions such as marriage regulation, immigration restrictions, and involuntary sterilization as the means to inhibit the spread of mental illness to the remainder of the population. Much of this view became incorporated into the eugenics movement that arose and enjoyed varying levels of support throughout the world. After its application in Nazi Germany, societies around the world rejected the principles of the eugenics movement, particularly as applied to those with mental illness. Additional information concerning eugenics is addressed in Chapter 4, "Ethical Standards."

Substantial improvements in mental health occurred after World War II. A nongovernmental organization developed, the Joint Commission on Mental Illness and Health (JCMIH), as a result of the combined efforts of the American Medical Association and the American Psychiatric Association. The JCMIH issued recommendations for improved public care of the mentally ill, which received mixed acceptance. New psychiatric units were constructed in hospitals throughout the nation and an emphasis on research began in earnest. The National Institute of Mental Health (NIMH) developed, allowing information concerning research and training related to mental illness to be disseminated widely. New federal monies in the form of grants were administered by NIMH to medical schools and other groups nationwide, sparking an increase in the publication of federally funded research.

Among the most significant developments to occur during this time was the introduction of a new delivery system for mental health: **community mental health care**. This new delivery system posited that the least restrictive alternative was the best alternative for the mentally ill patient who could control his behavior and cooperate with treatment plans. Beginning in the 1960s, the concept of community mental health care gained widespread acceptance, as advancements in psychotherapeutic drugs resulted in improved behaviors and compliance with treatment plans. New federal monies supported construction of community mental health centers, and many mentally ill patients who had been institutionalized were returned to the community. Unfortunately, the monies available to treat these newly deinstitutionalized patients were insufficient to address demand.

Numerous legislative solutions were enacted to address this demand, but the skyrocketing costs of delivering this sort of care proved difficult for many politicians to support. Eventually, politicians at the federal level resolved their dilemma by applying the block grant program to the mental health area. **Block grants** provide designated amounts of funding to individual states, which then decide where and how to spend the monies provided. Some states have distributed these block grants equally between mental health care and physical health care, while others have emphasized physical health care over mental health care. Because some states chose not to use this money to support institutional or community mental health centers, many mentally ill patients were left with limited alternatives to receive care. Consequently, some mentally ill patients were discharged to the streets with the hope that charitable organizations would fill the void created by this funding lapse.

Today, the level of mental health care delivered in the United States varies greatly from region to region. Much of that variation is attributable to the availability of financing to support this care and treatment. Most mental health care authorities agree that the monies available for mental health treatment, whether from public or private entities, do not meet the demand for this care. While many industrialized nations worldwide have addressed mental health care and treatment fully, a comprehensive solution for prevention, care, rehabilitation, training, education, research, and financing still awaits development, acceptance, and implementation in the United States.

CONFIRM & CLARIFY UNDERSTANDING True or False

Indicate whether the following statements are true (T) or false (F). If a statement is false, rewrite it to make it true.

1. ___ At the federal level, the cause of occupational health is overseen by the Occupational Safety and Health Administration (OSHA).

   _____

2. ___ Managed care means the patient takes care of his or her own health care.

   _____

3. ___ Accreditation is the voluntary process in which an external group determines whether an organization meets predetermined standards.

   _____

4. ___ IPA is the abbreviation for independent practice association.

   _____

5. ___ PPO refers to professional podiatrist organizations.

   _____

6. ___ There is written proof of physicians and dentists as early as 2700 B.C.

   _____

7. ___ Licensing refers to a right conferred by the government to practice.

   _____

8. ___ Medicare is designed to provide financing for health care of poor or impoverished persons.

   _____

9. ___ Three types of managed care include HMO, IPA, and PPO.

   _____

10. ___ Outsourcing nonencrypted data violates HIPAA.

    _____

11. ___ In 1982, Congress passed the Tax Equity and Fiscal Responsibility Act (TEFRA).

    _____

Occupational Health

One development seen during the 20th century was the emergence of occupational health, sometimes referred to as industrial hygiene. **Occupational health** refers to the subspecialty of health care focused on anticipating, evaluating, and controlling the environmental factors arising in or from the workplace that result in injury, illness, impairment, or otherwise affect the well-being of the workforce. As it is known today, occupational health concentrates on employee wellness and preventing injury, illness, or impairment by analyzing operations and materials and recommending procedures to protect worker health.

The concept of occupational health began with recognition of a connection between workers' health and what they are exposed to in the workplace. As far back as Hippocrates' time, physicians have been urged to observe the environment when diagnosing the illnesses and injuries of their patients. The first medical treatise addressing this connection, *De Morbis Artificam Diatriba*, was published in 1700 and described multiple diseases associated with various occupations. As jobs and roles changed during the industrial revolution, newer associations between diseases and occupations arose. Acceptance of occupational health as a subspecialty of medicine occurred in the 20th century, with surveys and articles published in scientific and medical journals and lectures included in medical school curricula.

This recognition of a connection between workers' health and what they are exposed to in the workplace continues to the present day. In the United States, the great majority of adults spend half or more of their waking lives at their workplaces. The work they perform and what they are exposed to during that work time may impact their health and the treatment of any health-related problem. For example, scientific studies have connected several respiratory diseases (e.g., asbestosis, byssinosis, sylicosis) to underlying causes related to exposure to substances found in the workplace. While these causes are not present in all instances of respiratory diseases, clinicians may seek details of the patient's occupational history to determine the underlying cause of the disease and treat the patient accordingly.

Occupational health is overseen at the federal level by the Occupational Safety and Health Administration (OSHA), within the U.S. Department of Labor. OSHA's purpose is to assure safe working conditions so that human resources are preserved. OSHA accomplishes this mission in several ways, including: (1) developing and enforcing mandatory job health and safety standards; (2) maintaining a reporting and recordkeeping system to monitor job-related injuries and illnesses; (3) encouraging employers and employees to reduce workplace hazards and implement or improve safety and health programs; (4) providing research on safety and health; (5) establishing training programs; and (6) establishing separate but dependent responsibilities and rights for employers and employees to achieve better safety and health conditions in the workplace.

Occupational health is generally performed in today's organizations according to a comprehensive plan focusing on the diseases that arise from conditions in the workplace. Conditions such as noise and vibration problems, hazardous materials, blood-borne pathogens, radiation, psychological stress, and poorly designed workstations and tools all fall within this focus. Occupational health professionals conduct needs analysis and, using the data collected, prioritize the health needs of the organization. They educate management and staff about health risks and activities, and procedures to follow to prevent injury, illness, or impairment, while also focusing on positive approaches to improve employee health. They may engage in medical surveillance activities, either by targeting categories of workers for examination of occupation-related conditions or by waiting for workers to present themselves with symptoms that may be work related. They also review government regulations and employ approaches that will demonstrate their organization's compliance with governmental requirements. Finally, they may provide direct patient care to

Table 1-6 Hospital Infection Control Committee	
Purpose	• To prevent and reduce health care facility–acquired infections
Staff	• Multidisciplinary
Activities	• Establish policies and procedures • Engage in training • Employ awareness techniques • Conduct surveys of personal and physical space • Track outbreaks of infection

the employees themselves through physical examinations, emergency care, immunizations, counseling, and education.

In the patient care setting, the focus of occupational health is twofold: improving employee health and reducing exposure to health care facility–acquired infections. Employee health can be improved by employing many of the activities previously described. By providing a healthy work environment, the occupational health professional attempts to reduce absenteeism, employee turnover, and employee illness and injury. Health care facility–acquired infections may occur due to the proximity of ill employees, patients, or visitors; faulty patient-care techniques; mishandling of contaminated material and equipment; poor housekeeping; or inadequate physical facilities or supervision. Many health care facilities operate infection control committees as a means to prevent and reduce these acquired infections. These committees are typically staffed on a multidisciplinary basis with physicians, nurses, and allied health professionals working together to establish policies and procedures addressing this topic. They may also engage in training activities, employ awareness techniques, track outbreaks of infections, and conduct bacteriological surveys of health care facility personnel and the areas where infections have increased in incidence. The purpose, staffing, and activities of a health care facility infection control committee are listed in Table 1-6.

HEALTH CARE DELIVERY SYSTEMS

As important as governmental entities and managed care organizations are to health care today, other entities also exert strong influence. Professional associations, voluntary health agencies, philanthropic foundations, and international health agencies all play roles in the health care delivery system. Health care delivery also varies widely, in terms of the settings where health care is delivered as well as the type and number of professionals delivering care.

Professional Associations

Among the most influential players in the health care field are professional associations. A **professional association** is a body of people with specialized learning who exert mental, rather than manual, labor and organize for a common purpose or objective. These groups cover every conceivable health-related profession and institution. The associations are generally national in character, with affiliated organizations at the state and local levels. They serve as sources of information for their membership at every level, often producing a variety of publications such as journals, magazines, and newsletters. These groups hold annual meetings that serve to disseminate information, discuss current issues and research, and provide opportunities for employment exchange.

Originally, these associations served to create standards of professionalism for their membership, focusing primarily on performance improvement. Gradually the associations encouraged additional focus on research and innovation, and discovered the potential for influencing political decision making. Associations take positions and pass resolutions on critical health issues, support political candidates, and testify before legislatures for or against proposed legislation.

Among the most influential professional associations are the American Medical Association (AMA), the American College of Surgeons (ACS), and the American Hospital Association (AHA), all described earlier in this chapter. The American Osteopathic Association (AOA) has greatly influenced the quality of patient care in osteopathic hospitals and organizations, and the American Health Information Management Association (AHIMA) has played a central role in the development of the health information management profession.

Voluntary Health Agencies

Voluntary health agencies are nongovernmental organizations created to perform public work in health care through private means. These agencies are often tax-exempt, providing distinct financial advantages for both the agencies and their financial contributors. Most agencies receive financial support from individuals as well as business and industry. Some possess other sources of income, such as investment earnings, service fees from clients, and membership dues.

Voluntary health agencies came about as a result of several occurrences, including the volunteer movement of the late 19th and early 20th centuries, the developing concern for communicable diseases, the excessive illnesses and deaths of infants and mothers, and the absence of governmental entities playing a role in the delivery of health care. The first voluntary health agency in the United States was the Anti-Tuberculosis Society of Philadelphia, founded in 1892. The National Association for the Study and Prevention of Tuberculosis, now known as the American Lung Association, began in 1904. During the next two decades, national and local movements were formed that focused on cancer control, prevention of blindness, maternal hygiene, deafness, and public health nursing. Later organizations formed to place attention on issues of poliomyelitis, diabetes, heart disease, and acquired immunodeficiency syndrome (AIDS), among others.

One organization that is typically considered a voluntary health agency also possesses a quasi-official status: the American Red Cross exists through the grant of a charter by the U.S. Congress in 1900. The organization originated in the efforts of Clara Barton during the Civil War and moved to an international level of recognition before being formally recognized in the United States. The American Red Cross serves to help people prevent, prepare for, and cope with emergencies and has distinguished itself in disaster relief efforts. Other voluntary health agencies have also distinguished themselves; many are listed in Table 1-7.

One of the most respected voluntary associations in health care is the National Academy of Medicine (NAM) of the National Academy of Sciences. Founded as the Institute of Medicine in 1971, NAM is an independent, non-profit organization whose mission is to serve as adviser to the nation to improve health. NAM has issued numerous influential reports chronicling critical health care issues, ranging from immunization safety to privacy of health information to the use of artificial intelligence to improve the delivery of health care. A listing of sample reports is found in Table 1-8.

Voluntary health agencies can be grouped into three types: (1) those concerned with specific diseases (e.g., cancer or diabetes); (2) those concerned with special organs or structures of the body (e.g., heart or skeletal defects); and (3) those concerned with society as a whole or special groups of people or issues (e.g., mental health or family planning). Some voluntary health agencies provide direct patient care while others concentrate on research and education. Like professional associations, these groups also participate in the political process through lobbying efforts and by testifying before legislative committees.

Table 1-7 Voluntary Health Agencies
American Cancer Society
American Lung Association
Cystic Fibrosis Association
Easter Seals
Eye Bank Association of America
Immunization Action Coalition
The Leukemia and Lymphoma Society
Muscular Dystrophy Association
National Kidney Foundation
United Cerebral Palsy Association

Table 1-8 A Sample of Reports from the National Academy of Medicine

Title	Year Issued	Summary
The Computer-based Patient Record	1991	Presents a blueprint for introducing the computer-based patient record.
Crossing the Quality Chasm	2001	Calls for fundamental change to close the quality gap, proposes a redesign of the health care system, and provides overarching principles for those involved in health care to follow.
To Err is Human	2000	Proposes a comprehensive strategy to reduce preventable medical errors.
Leadership by Example	2002	Proposes a national quality enhancement strategy focused on performance measurement of clinical quality and patient perceptions of care.
Patient Safety	2003	Describes a detailed plan to facilitate the development of data standards applicable to the collection, coding, and classification of patient safety information.
Priority Areas for National Action	2003	Identifies 20 priority areas for focus in improving the quality of health care.
Preventing Medication Errors	2006	Medication errors are surprisingly common and costly to the nation. Explains a comprehensive approach to reducing these errors.
Health IT & Patient Safety	2011	Recommends how to use health information technology to make patient care safer.
Optimizing Strategies for Clinical Decision Support	2017	Identifies actionable collaborative steps to optimize adoption and use of clinical decision support.
Artificial Intelligence in Health Care	2019	Identifies current and near-term AI solutions, the legal and regulatory landscape of AI tools, and outlines considerations for moving forward.

Source: National Academy of Medicine, https://nam.edu

Philanthropic Foundations

Although not as influential as governmental entities and voluntary health agencies, philanthropic foundations play a substantial role in health care. **Philanthropic foundations** are organizations designed to distribute donated funds in an effort to better humankind. Numerous such foundations exist in the United States; some, but not all, are dedicated to health care matters. Examples of prominent foundations supporting health care matters are the Robert Wood Johnson Foundation, the Rockefeller Foundation, and the Ford Foundation. Within the health information management field, the AHIMA Foundation plays a prominent role.

Philanthropic foundations support health care through the awarding of grants of money. These grants support research, training, and demonstration projects. Because they are not bound by the same restrictions as governmental entities who also award grants of money, the amounts of their grant awards may vary with the kind of program they choose to support and the foundation's own size. This flexibility in award amounts has resulted in support and stimulation for researchers that sometimes lead to innovations in the health care field.

International Health Agencies

Because disease does not stop at a national border, the need for international cooperation to improve health care has become imperative. **International health agencies** are composed of governmental and nongovernmental entities that transcend national borders to perform public work in health care. They provide direct patient care to population groups throughout the world, contribute to the control and prevention of infectious diseases, and support training of health workers.

Efforts to organize international health agencies began in the middle of the 19th century with the creation of a series of International Sanitary Conferences. These conferences concentrated on the topics of communicable diseases, control of epidemics through quarantine, and investigation of the origin of infections. Various organizations came into existence over the next 100 years that expanded beyond the focus of the original conferences to include the standardization of serums, control of drug traffic, training of professional personnel, and provision of limited health services in the field.

After World War II, the United Nations created a specialized agency devoted to health care. The World Health Organization (WHO) has a varied mission, including promoting international standardization of drugs, vaccines, and other biologic agents; providing epidemic and statistical service; sponsoring health research; developing international quarantine measures; preparing and distributing publications; and providing technical and program-planning assistance to participating nations.

A second creation of the United Nations, the United Nations Children's Fund (UNICEF), also addresses health issues. Although it was originally created as a temporary, emergency agency to assist children in war-torn countries, UNICEF became a permanent agency of the United Nations in 1953. In addition to its original mandate, UNICEF provides food and supplies to child and maternal welfare programs throughout the world. It also develops and deploys programs for vaccination and control of infectious diseases.

Other international health agencies have made major contributions to improving health care worldwide, including Doctors Without Borders, Global Impact, International Medical Corps, and Project Hope. These organizations provide direct patient care to a variety of population groups in addition to training health workers and controlling infectious diseases. These and other organizations have distinguished themselves in the health care field; many are listed in Table 1-9.

Table 1-9 International Health Agencies
AmeriCares
CARE
Doctors Without Borders
International Federation of Red Cross and Red Crescent Societies
International Medical Corps
Project HOPE
Save the Children
World Vision

Variety of Delivery Systems

The changes in the health care system since the founding of this country have resulted in a wide variety of places where patients receive care; in addition, the number and type of professionals involved in health care have also greatly expanded.

SETTINGS

To understand the variety of settings, one must first understand what is referred to as the continuum of care. The **continuum of care** is defined as "matching an individual's ongoing needs with the appropriate level and type of medical, psychological, health, or social care or service within an organization or across multiple organizations."[3] This continuum is seen in the range of services provided to the patient, starting at the least acute and least intensive and moving to the most acute and most intensive. Figure 1-3 illustrates the continuum of care.

The continuum of care can be broken into four types: primary care, secondary care, tertiary care, and quaternary care. **Primary care** refers to the care provided by the health care professional at the initial point of contact and in the coordination of all aspects of the patient's health care. Primary care typically occurs in an ambulatory setting and encompasses both preventive care and acute care. One example of primary care would be the care offered by a family practitioner in prescribing an antibiotic for a bacterial infection. **Secondary care** is care provided by a specialist, often at the request of the primary care physician. Examples of secondary care are as varied as there are medical specialists. One example is the radiation therapy provided by the radiologist following breast cancer surgery. **Tertiary care** is the specialized medical and surgical care provided for complex or unusual medical problems. Typically, tertiary care facilities possess advanced technologies and specialized intensive care units. A large medical center containing a trauma center and burn unit is one example of a facility providing tertiary care. **Quaternary care** is the most complex level of medical and surgical care available. One example of quaternary care is the transplantation of baboon marrow to an AIDS patient. Quaternary care facilities are often affiliated with universities and research institutions. Depending on the circumstances of a given medical situation, a patient may receive all four levels of care during the progression of the patient's disease.

Health care is generally delivered in two ways: in ambulatory care settings and in hospitals or other inpatient settings. **Ambulatory health care** is defined as the care given to patients who are not confined to an institutional bed as inpatients at the time care is rendered. Accordingly, ambulatory care is referred to as care being provided in an outpatient setting. Ambulatory care can

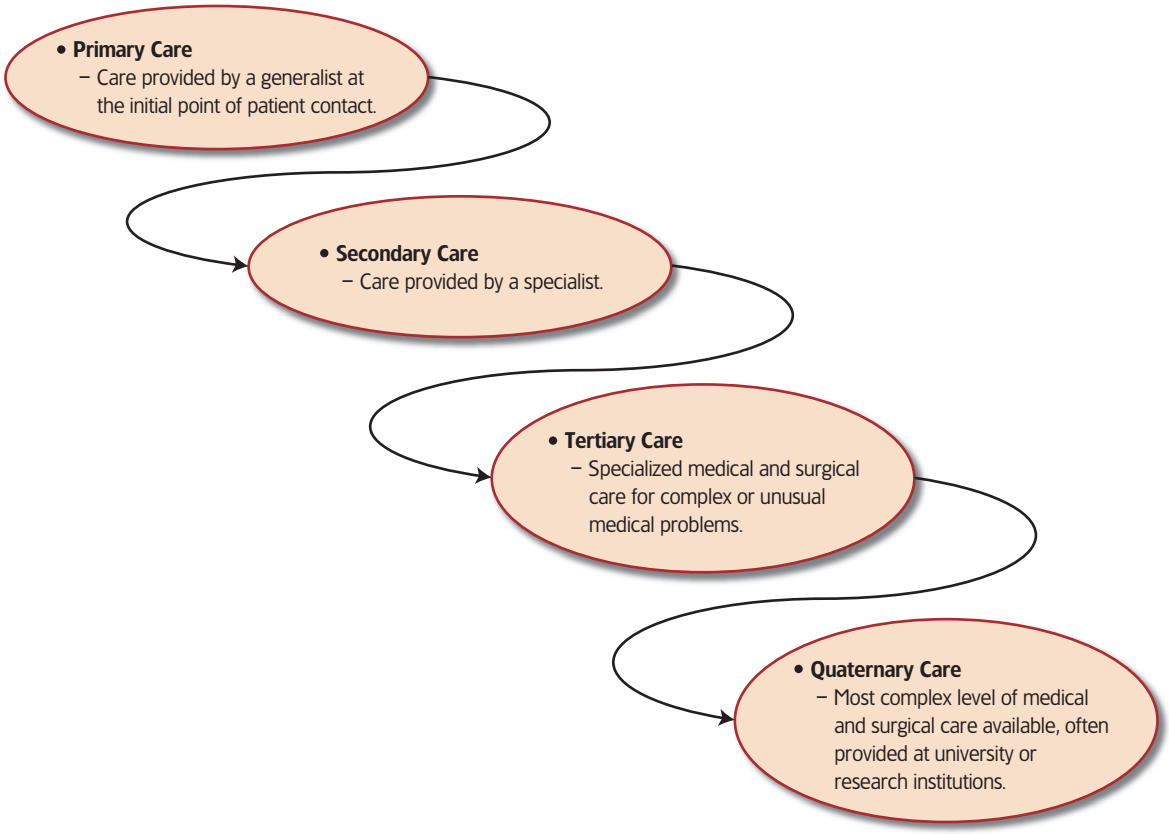


Figure 1-3 Continuum of Care

be further subdivided into the care provided by freestanding medical organizations and the care provided in a hospital setting or at hospital direction. Examples of care provided at freestanding medical organizations include physician practices (solo or group), community health centers, neighborhood clinics, and public health departments. Examples of the care provided in a hospital setting or direction include emergency rooms, outpatient departments, hospices, and ambulatory surgery centers. The key to understanding ambulatory care is that the patient travels to and from either the freestanding medical organization or the hospital setting on the same day without being admitted as an inpatient.

By contrast, a home health agency travels to the patient to deliver care. A **home health agency** is an organization that provides nursing and other professional and technical services to patients at their places of residence. Home health agencies can be community based or hospital based. Home health agencies have grown in popularity because of their ability to be reimbursed for services from government and third-party payers, and consumers' preference to be cared for in their homes.

One area of care frequently addressed by many home health agencies is hospice care. **Hospice care** refers to the management of symptoms for patients considered terminally ill, with a life expectancy of less than six months if their disease follows its normal course. Symptom management may range from methods to relieve chronic pain and other physical results of the disease process to methods to relieve the emotional and mental stresses of the dying process for

both the patient and the family. The majority of hospice care occurs in the patient's home, lending itself to the work of home health agencies.

Hospice care is sometimes confused with palliative care. **Palliative care** refers to the management of symptoms for patients with serious illnesses, at any stage of those illnesses. While the aim of both is to try to relieve pain, stress, and other symptoms, palliative care can be paired with other treatment designed to prolong life or cure illness; hospice care is focused on patients with a terminal illness who no longer seek a cure to their illness.

A **hospital** is defined as "a health care organization that has a governing body, an organized medical staff and professional staff, and inpatient facilities and provides medical, nursing, and related services for ill and injured patients 24 hours per day, seven days per week."[4] Each state's licensing authority promulgates its own definition of the word "hospital," which can result in some deviation from the above listed definition.

A great variety exists in the types of hospitals operated in the United States. Some vary in ownership, ranging from government owned to nongovernment owned. Among nongovernment-owned hospitals, ownership may vary by those operated for profit and those operated not for profit. Additionally, variety exists as a result of population served (e.g., children's hospitals) and diagnostic and therapeutic services offered (e.g., cancer treatment).

Entire treatises have been devoted to the services offered by hospitals. An attempt is made here to highlight the typical structure of a hospital and the kinds of services typically offered. Hospitals are typically structured as illustrated in Figure 1-4. The governing body of the hospital is a group of individuals who have the authority and responsibility for operation of the hospital. These governing bodies are sometimes referred to as boards of trustees, boards of directors, or boards of governors. They function according to the bylaws established by the board. **Bylaws** are the framework used to identify the roles and responsibilities of the board and its members. Governing boards routinely work through the use of standing committees and special committees.

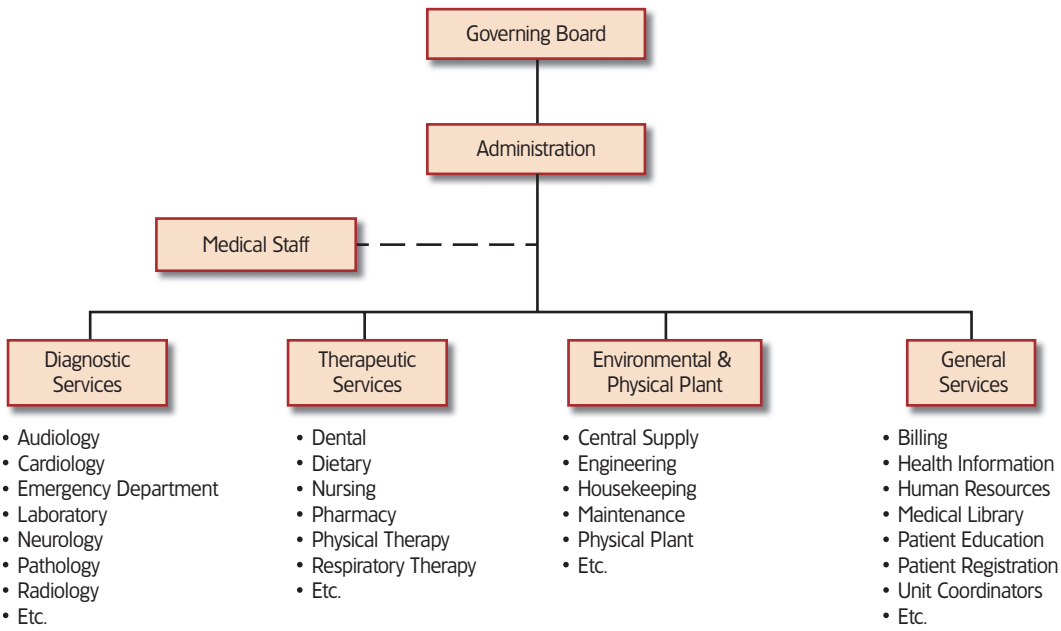


Figure 1-4 A Hospital Organization Chart

Table 1-10 Services in a Hospital Setting
Internal Medicine
Neurology
Cardiology
Pediatrics
Obstetrics
Surgery
Psychiatry
Critical Care
Radiology/Radiotherapy
Emergency Care
Clinical Laboratory
Pharmacy
Pathology
Physical Therapy
Nursing Care
Respiratory Therapy
Infusion Therapy

The administration of the hospital consists of those individuals responsible for its fiscal and general management. They do not provide services directly to patients; rather, they work with management and health care professionals to direct patient care. The chief executive officer (CEO) is the primary administrator of the hospital, answering directly to the governing board for the success of the facility. The CEO is assisted by a chief financial officer (CFO), a chief information officer (CIO), and a chief operating officer (COO). Depending on the size of the hospital and the complexity of the services offered, many other layers of management may assist the CEO.

The types of services offered by a hospital may vary; however, certain services are almost universally offered. These services include nursing care, radiology, pathology, clinical laboratory, pharmacy, and emergency care. A more comprehensive list of services offered in the hospital setting can be found in Table 1-10.

Other inpatient care settings also treat patients who require significant medical resources. A **long-term care facility** is an institution that offers health care to patients who are not in an acute episode of illness but who need continuous nursing service in an inpatient setting. Patients in long-term care facilities are no longer able to care for themselves in their homes, even with the assistance of others, and frequently suffer from incapacitating conditions, permanent cognitive impairment, or chronic respiratory diseases. Long-term care facilities typically address a variety of patient needs, including medical treatment and preventive, rehabilitative, social, spiritual, and emotional care to individuals. Examples of these facilities include nursing homes, rehabilitation hospitals, and skilled nursing facilities.

CRITICAL THINKING

An elderly relative of yours has suffered a fall and will require surgery to repair the damage suffered in the fall. Your elderly relative will not be able to return to her home immediately after surgery but instead will require additional care outside the hospital setting before returning to her home. Would treatment of your elderly relative at a long-term care facility, a rehabilitation care facility, or adult day care services be most appropriate immediately after surgery?

A **rehabilitation care facility** is an institution that offers health care services to patients who need to restore functional abilities, assume complete activities of daily living (ADLs), or engage in an occupation. Patients in rehabilitation care facilities work with a multidisciplinary team that creates an approach to rehabilitation to suit the patient's needs. Rehabilitation care facilities can be stand-alone institutions or associated with hospitals or long-term care facilities.

Other forms of ambulatory care include respite care, adult day care services, mobile diagnostic services, and various forms of complementary and alternative medicine. **Respite care** refers to a type of short-term care provided during the day or overnight to patients as a way to temporarily relieve the home caregiver. As the number of chronic illnesses that require a home caregiver rises in the United States, the acceptance of respite care has also risen. **Adult day care services** refers to programs targeted to elderly persons during the daytime hours that offer health and social services, such as family counseling, physical activities, nursing assessments, and craft activities. Adult day care services are used both by elderly persons who live alone and those who live with family where the regular caregiver works during the day. Similar to respite care, the acceptance of adult day care services has risen in the United States due to the increase in elderly population. **Mobile diagnostic services** (MDS) refers to the delivery of portable diagnostic examinations. They include such services as X-rays, mammograms, ultrasounds, and EKGs. MDS has gained general acceptance within the health care community and beyond due to its convenience for the patient and coverage by insurance companies. The practice of complementary and alternative medicine occurs in many varieties. **Complementary and alternative medicine** (CAM) refers to a healing system, practice, or product that falls outside of what is considered conventional medicine. To be considered complementary medicine, the system, practice, or product is employed *together with* conventional medicine. To be considered alternative medicine, the system, practice, or product is employed in *replacement of* conventional medicine. CAM encompasses a wide range of systems, practices, and products; examples include acupuncture, massage therapy, dietary supplements, yoga, and energy therapy. As high-quality scientific evidence of the safety and effectiveness of some of these examples, e.g., massage therapy, becomes available, they become more accepted and enter the mainstream of conventional medicine.

With the variations in setting comes variation in how the settings work with one another. In some instances, various care settings are considered stand-alone entities with minimal interaction. In other instances, various care settings are arranged into highly structured networks where the same patient is treated in each setting within the network. One of the newest developments in the networking of health care settings is the accountable care organization. An **accountable care organization** (ACO) refers to a group of providers and suppliers of services (e.g., hospitals, physicians, and others involved in patient care) that work together to coordinate care for the patients who receive Medicare health benefits. Created by rule by the U.S. Department of Health and Human Services pursuant to the Patient Protection and Affordable Care Act of 2010, an