



## CHAPTER 1

# Introduction to Healthcare Delivery Systems

### **Objectives**

*After reading this chapter, you should be able to:*

- Outline the dynamics affecting today's healthcare industry
- Identify some major challenges that affect the delivery of health care in the United States
- Enumerate the various healthcare settings in which patients can receive care
- Distinguish the various types of patient populations
- Delineate various professions within the healthcare industry and determine requirements for entry into the career field
- Categorize the various types of physician specialties
- Compare the three levels in which healthcare services are classified

- Distinguish the concepts of licensure, accreditation, and certification
- Describe the functions of various healthcare accrediting agencies
- Identify the various healthcare agencies under the Department of Health and Human Services
- Identify and describe the functions of common health organizations and associations

### **Main Terms**

Accreditation	Hospice
Ambulatory care facility	Hospital
Ancillary	Inpatient
Certification	Licensure
Complementary therapies	Long-term care
Deemed status	Naturopathic
Electronic health record	Outpatient
Geriatric	Palliative care
Home health	Respite care

The U.S. healthcare industry began as a predominantly volunteer or charitable system where patients paid little to no money for treatment and services. Since its beginnings, this industry has undergone some major changes. Health care has now evolved into a business entity that requires strategic planning, financial management, operational control, and functional specialties to maintain its viability.

The healthcare industry is now one of the largest industries in the United States, employing over 13 million workers with a projected increase of over 3 million new jobs by the year 2014 (BLS, 2007). This overwhelming growth has caused health care to be one of the more stable and flexible industries for employment. As the industry

grows, there will be an increased demand for qualified and skilled workers to fill positions that require specialized skills and advanced technical knowledge. There are several other dynamics and challenges that will also affect this growth pattern in health care.

## **Healthcare Dynamics**

Many changes in healthcare structure continuously shape the industry, creating and improving job functions. Factors such as technological advances, the aging population, complementary therapies, and increasing costs will have an impact on the growth of the healthcare industry.

### **Technology**

Technological advances are improving patient care and aiding diagnostic, therapeutic, and ancillary processes. Physicians and other clinical personnel are able to make more precise and better-informed decisions due to improved diagnostic techniques such as three-dimensional ultrasounds, which allow a multidimensional and clearer viewing of internal body structures. Clinical and ancillary personnel are able to streamline many workflow and documentation processes due to the development of the **electronic health record (EHR)**. EHR technology allows multiple and simultaneous users to view medical records from mobile locations, which makes patient care more efficient and speeds reimbursement processes (Amatayakul, 2004).

### **The Aging Population**

The life expectancy for a U.S. citizen is 77.9 years of age, according to the National Center for Health Statistics (2004). As the average life expectancy age increases, the elderly population, which is the largest group of healthcare consumers, will also grow. As a result of this growth, healthcare usage will increase because the natural functioning of the body deteriorates with aging and the risks of acquiring chronic and/or systemic diseases such as hypertension, diabetes, and kidney failure increases.



Many illnesses such as the ones mentioned earlier require continuous and prolonged treatment. Therefore, the need for **geriatric** specialists, especially in highly populated elderly communities, will grow. This increase will, in turn, trigger the need for clinical professionals trained in the treatment of conditions that most often affect the elderly.

## **Complementary Therapies**

Traditional western medicine focuses on treatment of a disease or illness instead of the patient as a whole. Other options known as **complementary therapies** incorporate a holistic approach to patient care whereby they assess and treat the physical, mental, emotional, and spiritual needs of an individual. Some of these alternative therapies include acupuncture, message therapy, colon cleansing, and fasting.

### *Acupuncture*

The Chinese art of acupuncture has been practiced for thousands of years in many eastern countries, yet has only been used for a little over 150 years in the United States. Acupuncture is the application of fine

needles at specific points, which are dependent on a patient's condition and symptoms. Before inserting needles into an individual, the acupuncturist conducts a thorough review of the patient's symptoms in order to determine the underlying cause of the symptoms (Balch & Stengler, 2004).

Acupuncture is used to treat a number of illnesses and conditions, including:

- Back pain
- Sciatica
- Muscle pain and weakness
- Arthritis
- Migraines and headaches
- Tendinitis
- Toothaches
- Allergies
- Asthma
- Skin conditions
- Diabetes
- Urinary conditions
- Premenstrual syndrome
- Menopausal symptoms
- Nausea and vomiting
- Morning sickness
- Digestive problems
- Infertility
- Addictions
- Weight problems
- Depression and anxiety

Due to increased support by healthcare organizations and associations and acceptance by medical professionals and patients, this therapy is becoming a mainstay in the U.S. culture. Some third-party payers are now reimbursing for acupuncture services, especially those services related to the treatment of substance abuse and dependence. Enrollment in acupuncture programs is growing and will most likely increase as more patients seek such services.

### *Massage Therapy*

Massage therapy promotes health and healing through touch; therapists stimulate and manipulate certain muscles and tissues throughout



the body to provide specific health benefits. There are over 80 types of massage (see Table 1-1) that have varying techniques, philosophies, and benefits. Massage is often used for relaxation, but it is also used medicinally to treat a variety of ailments, including:

- Pain
- Tension
- Stress
- Anxiety
- Insomnia
- Muscle strain
- Premenstrual syndrome
- Pregnancy complications
- Arthritis
- Immune system disorders
- Acquired immune deficiency syndrome/human immunodeficiency virus (AIDS/HIV)
- Gastrointestinal problems
- Cardiovascular conditions
- Backaches

**TABLE 1-1** Types of Massage Therapy

Type	Use/Benefit
Acupressure	Used in combination with acupuncture to stimulate specific pressure points for relief of symptoms
Infant massage	Used to stimulate and increase newborn motor skills and mother/baby bonding
Reflexology	Used to stimulate points on hands and feet that correspond to various organs within the body
Sports massage	Used before, during, and after sporting events to enhance performance, increase flexibility, reduce the risk of injury, and decrease body stress
Swedish massage	Used to increase oxygen supply to the blood, release toxins from the body, and increase range of motion for relaxation and stress reduction

As a result of increased demand for massage therapy services, the profession is experiencing favorable growth. In particular, massage therapy is popular due to its relaxation benefits that often help prevent or reduce illness and disease. The United States Bureau of Labor Statistics (2007) predicts that job outlook for massage therapists will be above average throughout 2014.

### *Colon Cleansing*

The concept of cleansing the colon or gut operates on the premise that the stomach is the center of life controlling the function of all other bodily functions. Therefore, the colon should be flushed of all undigested food and wastes that create a toxic or poisonous environment. Symptoms related to a toxic colon include depression, irritability, fatigue, and mental confusion that can manifest into other conditions such as colon cancer, irritable bowel syndrome, and other gastrointestinal disorders.

A popular means of detoxifying the colon is by colon cleansing, whereby a trained professional flushes the system with a continuous flow of purified water via an enema. This flushing is continued until all stomach contents are completely emptied. Many individuals who utilize this therapy have reported weight loss of 10 pounds or more after a single cleansing session. Others have reported relief of premenstrual syndrome symptoms, nausea and gastrointestinal upset, depression and anxiety, and other symptoms and illnesses.

Practitioners of this complementary therapy recommend that individuals utilize it on a regular basis in order to experience optimal results. There are several centers that administer colon cleanses by trained professionals for a fee. Due to the increased popularity of this therapy, trained professionals for this specialty are in great demand, especially in larger metropolitan areas.

### *Fasting*

Fasting, or abstaining from certain food and/or drink for a specified period of time, has been practiced for centuries primarily for spiritual purposes. However, many holistic practitioners are now recommending it as a therapeutic option for all manner of sickness and disease. The absolute fast is more commonly used for completely healing the body of illnesses; this fast requires an individual to abstain from all food and drink with the exception of water until hunger returns to the body, which can take from a couple of weeks to more than 30 days (Bueno-Aguer, 1991).

Fasting relieves the digestive processes, generating energy reserves that are then directed toward other vital processes. Fasting creates the optimal conditions for the body to restore and repair damage caused by unhealthy eating habits, stress, smoking, caffeine and alcohol consumption, and other poor lifestyle choices. There are numerous documented accounts of people experiencing complete healing or improved recovery from conditions such as cancer, Parkinson's disease, heart disease, and arthritis after fasting.

Fasting retreat centers have been established for individuals wishing to utilize this complementary therapy under the guidance of a trained professional. These retreats offer a supportive, controlled, and tranquil environment in which individuals are monitored, guided, and educated about effective fasting. Such facilities have created an increased demand for formally educated and trained holistic health practitioners such as **naturopathic** physicians.

### **Costs**

Traditionally, the acute care facility or hospital was the primary means of patient care, yet as healthcare costs increase, managed care organizations and other third-party payers are seeking more cost-effective options. Inpatient stays are decreasing while outpatient visits are on



the rise. This paradigm shift has significantly increased the popularity of alternative care, which has previously been underutilized in the United States. Therefore, there will be an increased need for more ambulatory facilities, which will be discussed later in this chapter. Private physician practices will have increased patient loads requiring the employment of more ancillary staff such as medical assistants, billers, and coders.

## **Healthcare Challenges**

Certain challenges such as quality patient care, environmental and social factors, and patients taking responsibility for their own health will also affect employment trends within the healthcare industry.

### **Quality Patient Care**

Although the healthcare industry is experiencing rapid employment growth, there are several critical areas in which qualified professionals are in short supply. One of the key shortages the industry has experienced in recent years has been within the nursing field. Some healthcare facilities have increased the patient load of the nursing staff while others have deviated from the standard 8-hour workday, requiring nurses to work 12-hour shifts in order to improvise for this shortage. Such measures significantly compromise patient care.

Many healthcare facilities are aggressively seeking graduates of nursing programs, especially those holding bachelor's degrees. Some facilities are offering nurses sign-on bonuses and other incentives such as leasing luxury vehicles in exchange for a specific service commitment. Many employers are implementing flexible, family-friendly schedules for their nursing staff. Scholarships and tuition reimbursement are also popular options being utilized to attract students into the profession.

### **Environmental and Social Factors**

Environmental and social factors and major catastrophic events can easily overwhelm the current supply of healthcare workers in a matter of seconds. Natural disasters such as hurricanes, earthquakes, tornadoes, and tsunamis can require thousands of people to simultaneously seek the aid of healthcare workers. Social conditions such as war and



terrorism can likewise necessitate simultaneous medical care services for multitudes of people.

As recently as 2005, Hurricane Katrina significantly overwhelmed providers not only in New Orleans, but also in other major metropolitan areas where hurricane victims were evacuated. There was a nationwide call for volunteer and relief healthcare workers to care for the victims. In 2001, the terrorist attacks of September 11 considerably increased patient loads at many local New York metropolitan hospitals. These events alone have proven that the United States has a strong need for skilled healthcare professionals.

### **Patient Responsibility**

In today's society, U.S. citizens have technologically enhanced communication where valuable health information can be accessed from

almost any location, at any time. Governmental agencies and private organizations continuously publish helpful information about disease prevention and control that is readily available to the general public. However, many people don't utilize this valuable information, choosing instead to make poor lifestyle choices that adversely affect their health.

### *Eating Habits*

Lifestyle choices can significantly reduce or completely eliminate the need for healthcare services in many cases. Countless books, articles, and reports have been published on how poor American eating habits are, contributing to increased disease risks. It is estimated that over 60



million U.S. adults (20 years and over) are overweight (NCHS, 2004). According to the Centers for Disease Control and Prevention (2004b), overweight and obesity have impacted the prevalence of many conditions, including:

- High blood pressure/hypertension
- Dyslipidemia
- Type 2 diabetes
- Coronary heart disease
- Stroke
- Gallbladder disease
- Osteoarthritis
- Sleep apnea and respiratory ailments
- Endometrial, breast, and colon cancers

### *HIV/AIDS*

As we enter the 25th year since HIV was discovered, the statistics of this deadly infectious disease are even more staggering than when it was first discovered. It is estimated that over 1 million people living in the United States are infected with HIV (CDC, 2004a). This epidemic is more prevalent among African American women and men, accounting for over half of all new diagnoses in 2004 (CDC, 2004a). To date, there is still no cure for this illness, and prevention has been the only mechanism proven to stop the spread of HIV.

Researchers have reported that abstinence and safe-sex practices are the only means for stopping the spread of HIV and AIDS. Many financial and human resources have been enlisted to help reduce the rates of HIV infection. However, countless education and awareness programs have had little impact on preventing the spread of this virus as an estimated 40,000 Americans will contract it each year (CDC, 2004a). Ironically, this disease, which has caused many to shy away from entering into clinical professions, has increased the need for clinicians, especially those focusing on infectious and immune diseases.

## **Healthcare Settings**

There are several types of settings or places in which patients can receive treatment. **Inpatients**, or individuals who have been formally

**TABLE 1-2 Types of Hospitals**

Type	Description
General hospital	Provide a variety of services such as emergency, critical, intensive, and general care to diverse patient populations
Specialty hospital	Provide specialized care to specific patient populations, such as: geriatric, pediatric, and cancer patients
Rehabilitation hospital	Provide physical, speech, occupational, recreational, and other therapies and services to trauma, stroke, and other patients
Behavioral health hospital	Provide psychiatric, psychological, and social services to mental and emotional health patients

admitted to a healthcare facility, are treated in acute care and long-term care facilities. There are several types of acute care facilities or **hospitals** (see Table 1-2) that provide a variety of medical, nursing, and **ancillary** services to patients. **Long-term care** facilities (see Table 1-3) provide chronically ill patients with extended skilled nursing, rehabilitation, dietary care, and social and other services for periods of usually 30 days or more.

**TABLE 1-3 Types of Long-Term Care Facilities**

Type	Description
Assisted living facility	Provide housing services on a rental basis in combination with other supportive services such as personal care, housekeeping services, and assistance with activities of daily living (ADL) usually to elderly or disabled patients
Independent living facility	Provide a variety of support services including social support and health care to patients within an apartment or condominium community
Nursing facility	Provide 24-hour medical, nursing, rehabilitation, social, spiritual, and other services to residential patients on a continual basis
Residential care facility	Provide housing services and assistance with ADL for custodial care patients
Retirement community	Provide a variety of healthcare and support services such as recreation, dietary, and housekeeping to residents for a monthly fee

**Outpatients**, or individuals who have not been formally admitted to a healthcare facility and usually have stays of 24 hours or less, have an even larger variety of healthcare options. **Ambulatory care facilities** and alternative treatment options such as **home health** and **hospice** are widely available to this patient population. Ambulatory care facilities are categorized into hospital-based facilities (see Table 1-4), which are connected or controlled by a hospital, and freestanding facilities (see Table 1-5), which are independent of larger hospital systems.

## Home Health Services

Critically, chronically, and/or terminally ill patients have the option of receiving home health services. Elderly patients stricken by chronic diseases such as diabetes, cancer, and cardiac conditions are the major users of such services. As the name implies, home health services are provided in the patient's home on an as-needed basis. Home health services typically consist of nursing, physical and occupational therapies, and speech therapy under a physician's direction. This option has become increasingly popular due to the convenience it provides to patients and cost savings it offers to third-party payers.

## Hospice Care

Another treatment option for terminally ill patients is hospice care. This patient population usually has a window of 6 months or less to

**TABLE 1-4 Hospital-Based Ambulatory Care Facilities**

Type	Description
Ambulatory surgery	Provide same-day surgical procedures including preoperative and postoperative services on patients who are admitted and discharged on the same day
Clinics and satellite clinics	Provide medical services to patients on an appointment and/or walk-in basis at an on-site or remote unit or building
Emergency department	Provide immediate or urgent care to critically ill or trauma patients on a walk-in basis
Observation services	Provide monitoring and assessment services to unstable patients to determine the need for inpatient hospitalization
Partial hospitalization	Provide services and accommodations to patients who need day or night care on a continuous or regular basis

**TABLE 1-5 Freestanding Ambulatory Care Facilities**

Type	Description
Ambulatory surgery centers	Provide same-day surgical procedures at a nonhospital-based center that includes preoperative and postoperative services on patients who are admitted and discharged on the same day
Birth centers	Provide traditional and nontraditional (water births) labor and delivery services to pregnant women
Industrial health clinics	Provide limited on-the-job health services to employees who are injured or become ill during working hours
Neighborhood health clinics	Provide no-cost or low-cost services to indigent patients in destitute residential areas
Physician office practices	Provide physician services to patients at individually or group-owned facilities
Public health departments	Provide preventive care and education such as vaccinations, blood pressure screenings, AIDS and sexually transmitted disease education, and birth control mechanisms to citizens
School health clinics	Provide general health services to students attending colleges and universities
Urgent care centers	Provide physician services on a walk-in basis to patients during regular operational hours and after hours when most physician offices are closed (such as evenings and weekends)

live. Hospice care is often provided to cancer, HIV/AIDS, end-stage renal disease, and end-stage heart and lung disease patients. In this setting, palliative rather than curative care is provided; **palliative care** simply relieves or eases the patient's pain and other symptoms.

Such care is generally provided in the patient's home, but can also be provided in a hospital or hospice community. Periodically, patients are admitted to the hospital to offer **respite care** or temporary relief to the patient's primary caregiver(s). Healthcare personnel and other professionals are also available to give emotional, spiritual, and other nonmedical support to patients and their family members.

## Healthcare Professions

A variety of professionals (see Table 1-6) work together to coordinate and establish optimal treatment and care for patients throughout the

**TABLE 1-6 Healthcare Professionals**

<b>Profession</b>	<b>Job Description</b>	<b>Educational Requirements</b>
Physician	Diagnose and treat illnesses; order, perform, and interpret diagnostic tests; perform surgeries; prescribe medication; counsel patients; and specialize in specific disease treatment and patient populations	<ul style="list-style-type: none"> <li>• Completion of an undergraduate degree and medical school (4 years)</li> <li>• Residency or internship (3–8 years)</li> <li>• National licensure exam</li> </ul>
Physician assistant (PA)	Diagnose and treat illnesses; order, perform and interpret diagnostic tests; assist with surgical procedures; prescribe medication (in most states); and counsel patients under the direction of a physician	<ul style="list-style-type: none"> <li>• Completion of PA-certified program (2–4 years)</li> <li>• National licensure exam</li> </ul>
Registered nurse	Carry out physician orders, treat patients, administer medications, and educate and advise patients	<ul style="list-style-type: none"> <li>• Receipt of a diploma or completion of either an associate's or bachelor's degree</li> <li>• Pass national licensure exam</li> </ul>
Medial assistant	Take medical histories; obtain vital signs; prepare patients for exams and assist physicians during exams; draw blood; collect lab specimens; and conduct administrative tasks such as answering phones, filing charts, scheduling appointments, and medical billing and coding	<ul style="list-style-type: none"> <li>• Receipt of certificate/diploma (1 year) or completion of associate's degree (2 years)</li> <li>• National certification exam (in some states)</li> </ul>
Surgical technologist	Assist in surgical operations and procedures under the direction of a physician, organize equipment and instruments in the operating room, and prepare patients for surgery	<ul style="list-style-type: none"> <li>• Receipt of certificate/diploma (9 months) or completion of associate's degree (2 years)</li> <li>• National certification exam</li> </ul>
Dental hygienist	Clean teeth, provide preventive dental care, educate patients on oral hygiene, and assist dentists	<ul style="list-style-type: none"> <li>• Completion of an undergraduate degree (associate's or bachelor's)</li> <li>• Licensure exam</li> </ul>
Pharmacist	Fill prescriptions; educate patients on medications; advise physicians and other clinical personnel on drug selection and dosage; compound medications; and conduct drug research, experiments, and tests	<ul style="list-style-type: none"> <li>• Completion of doctor of pharmacy degree (6–8 years)</li> <li>• National licensure exam</li> </ul>



**TABLE 1-6 (Continued)**

<b>Profession</b>	<b>Job Description</b>	<b>Educational Requirements</b>
Pharmacy technician	Assist licensed pharmacists by performing duties such as counting tablets and labeling bottles	<ul style="list-style-type: none"> <li>• On-the-job training</li> <li>• Receipt of certificate or diploma, or completion of associate's degree (voluntary in most states)</li> <li>• National certification exam (voluntary in most states)</li> </ul>
Clinical psychologist	Assess and treat mental and emotional disorders	<ul style="list-style-type: none"> <li>• Completion of a doctoral degree</li> <li>• National licensure exam</li> </ul>
Audiologist	Identify and assess hearing impairments, recommend treatment and provide rehabilitation to hearing-impaired patients	<ul style="list-style-type: none"> <li>• Completion of a master's degree</li> <li>• National licensure exam</li> <li>• Additional licensure exam to dispense hearing aids (in some states)</li> </ul>
Speech therapist	Identify, assess, and treat patients with speech delays and abnormalities, language, cognitive, and communication disorders, and voice, swallowing, and fluency conditions	<ul style="list-style-type: none"> <li>• Completion of a master's degree</li> <li>• National licensure exam</li> </ul>
Clinical dietitian	Assess patients' nutritional needs, plan food preparation and services for specific patient populations, oversee the operation of food management services within healthcare facilities	<ul style="list-style-type: none"> <li>• Completion of a bachelor's degree</li> <li>• Licensure (in some states)</li> <li>• Certification (in some states)</li> <li>• Registration (in some states)</li> </ul>
Physical therapist	Rehabilitate patients with physically debilitating injuries or illness to restore body function and mobility, to ease pain, and to improve range of motion	<ul style="list-style-type: none"> <li>• Completion of a master's degree</li> <li>• National licensure exam</li> </ul>
Physical therapist assistant	Rehabilitate patients with physically debilitating injuries or illness to restore body function and mobility, to ease pain, and to improve range of motion under the direction and supervision of a physical therapist	<ul style="list-style-type: none"> <li>• Completion of an associate's degree</li> <li>• National licensure or registration exam (in some states)</li> </ul>
Occupational therapist	Assist physically, emotionally, and/or psychologically ill patients with learning, restoring or maintaining ADLs such as cooking, cleaning, etc.	<ul style="list-style-type: none"> <li>• Completion of a master's degree</li> <li>• National certification exam</li> </ul>

*(Continued)*

**TABLE 1-6** (Continued)

<b>Profession</b>	<b>Job Description</b>	<b>Educational Requirements</b>
Occupational therapist assistant	Assist physically, emotionally, and/or psychologically ill patients with learning, restoring or maintaining ADLs such as cooking, cleaning, etc., under the direction and supervision of an occupational therapist	<ul style="list-style-type: none"> <li>• Completion of a certificate or associate's degree</li> <li>• National certification exam (in most states)</li> </ul>
Respiratory therapist	Assess and treat patients with breathing and other cardiopulmonary disorders utilizing a variety of treatment modalities	<ul style="list-style-type: none"> <li>• Completion of an associate's or bachelor's degree</li> <li>• National certification</li> <li>• National registration (optional)</li> <li>• Licensure (in most states)</li> </ul>
Radiation therapist	Administer radiation therapy to cancer patients and maintain treatment equipment	<ul style="list-style-type: none"> <li>• Completion of an associate's or bachelor's degree</li> <li>• National licensure exam (some states)</li> <li>• National certification exam (some states)</li> </ul>
Biomedical engineer	Develop and maintain medical devices and equipment to assist with patient care, combine the disciplines of biology and medicine in various research studies, and consult with physicians and other healthcare professionals about medical equipment needs	<ul style="list-style-type: none"> <li>• Completion of a bachelor's degree with a specialization in biomedical engineering</li> </ul>
Medical laboratory technologist	Perform clinical tests on blood, tissues, serum, and bodily fluids and other specimens to determine the presence or cause of disease	<ul style="list-style-type: none"> <li>• Completion of a bachelor's degree</li> <li>• National licensure or registration (some states)</li> </ul>
Diagnostic medical sonographer	Use ultrasound equipment to view internal body parts by correctly positioning patients and equipment to obtain an optimal view	<ul style="list-style-type: none"> <li>• Receipt of a certificate or completion of an associate's or bachelor's degree program</li> <li>• National registration exam (optional, but preferred by most employers)</li> </ul>
Radiologic technologist	Prepare patients for radiological exams, take X-rays, and administer nonradioactive materials into a patient's bloodstream	<ul style="list-style-type: none"> <li>• Receipt of a certificate or completion of an associate's or bachelor's degree</li> <li>• National certification exam (voluntary)</li> </ul>
Emergency medical technician	Provide emergency transportation to injured or ill patients not in healthcare facilities and report, assess, and administer limited treatment under the direction of a physician via radio communication	<ul style="list-style-type: none"> <li>• Completion of a certificate or associate degree program</li> <li>• National certification exam</li> <li>• National registration exam (in most states)</li> </ul>

continuum of health care. Each healthcare profession has specific duties and responsibilities in which practitioners are allowed to perform. Educational requirements and options vary according to discipline and correspond to the level of responsibility associated with each profession. As the demand for healthcare services increases, healthcare specialties will become more standardized, requiring higher levels of specialization and knowledge.

## **Physicians**

Physicians or medical doctors are the cornerstone of the healthcare industry; they direct and oversee patient care. All other healthcare professionals work under the direction and orders of physicians; therefore, physicians are among the most highly trained and skilled workers within the healthcare industry. As outlined in Table 1-6, doctors must complete a bachelor's degree and score satisfactorily on the Medical College Admission Test to even be eligible for admission to medical school.

Once admitted to medical school, students must complete at least 4 years of combined didactic, clinical, and internship training. This training can lead to either a doctor of medicine or doctor of osteopathic medicine degree. Medical doctors utilize generally accepted treatment modalities of traditional western medicine, while osteopathic physicians typically focus on holistic treatment options and preventive care.

Many medical doctors then complete residency training in a specific area of specialization (see Table 1-7), which can take an additional 3–7 years. Residency training is on-the-job training usually conducted in a hospital setting; residents work under the direction of a licensed physician within a medical specialty or subspecialty. To be eligible to practice in any state or the District of Columbia, physicians are also required to pass a licensure exam.

## **Continuum of Care**

Healthcare services are categorized into three basic levels: primary, secondary, and tertiary.

**TABLE 1-7 Common Physician Specialties (Sugar-Webb, 2005)**

<b>Specialty</b>	<b>Description</b>
Family and general practice	Provide comprehensive medical and surgical services to all patient groups; refer specialized services to specialty practitioners
Anesthesiology	Provide pain management services to surgical, oncology, obstetric, and other patients as needed
Pediatrics	Provide well-child and preventive care and diagnostic and therapeutic services to infants, children, adolescents, and teens
Obstetrics and gynecology	Provide general diagnostic and therapeutic services to women, manage pregnancy and childbirth, and assess and treat disorders of the female reproductive system
Cardiology	Provide diagnostic and therapeutic services to patients with heart, blood vessel, and lung disorders
Gastroenterology	Provide diagnostic and therapeutic services to patients with digestive system (stomach, small and large intestine, liver, gallbladder, and accessory organs) disorders
Rheumatology	Provide diagnostic and therapeutic services to patients with musculoskeletal ailments such as arthritis, sprains, strains, and back pain
Ophthalmology	Provide diagnostic, therapeutic, and surgical services to patients with eye conditions such as cataracts and glaucoma
Orthopedic surgery	Provide diagnostic, therapeutic, and surgical services to patients with skeletal illnesses and injuries such as fractures, dislocations, and knee and hip trauma
Plastic surgery	Provide surgical services to patients wishing to alter their appearance due to congenital anomalies, burns, facial injuries, general, or other purposes
Dermatology	Provide diagnostic and therapeutic services to patients with skin conditions such as eczema, acne, and psoriasis
Pathology	Provide diagnostic services to other practitioners and law enforcement to determine the cause of disease and/or death
Neurology	Provide diagnostic and therapeutic services to patients with nervous system (brain, spinal cord, and nerves) disorders such as epilepsy, Alzheimer's disease, and cerebral palsy
Oncology	Provide diagnostic and therapeutic services to cancer patients
Nephrology	Provide diagnostic and therapeutic services to patients with urinary system (kidneys, ureters, urinary bladder, urethra, and other organs) disorders such as renal failure and diabetes

## **Primary Care**

Primary care is preventive and wellness care. A primary care provider such as a general practitioner, pediatrician, or nurse practitioner is usually the coordinator of primary care services. The goal of this service level is to decrease the risk of illness in individuals and within a community. Primary care services may include the following:

- Patient education
- Vaccinations
- Diet moderation
- Exercise programs
- Physical exams
- Smoking cessation programs
- Stress reduction techniques

## **Secondary Care**

Secondary care is established to diagnose and treat illness and disease. The primary goal is to detect illness in its early stage and expedite treatment to prevent further disease or illness. Secondary care services may include the following:

- Colonoscopies
- Magnetic resonance imaging
- Computerized axial tomography scans
- Mammograms
- Surgery

## **Tertiary Care**

Tertiary care is restorative or rehabilitative care designed to restore an individual back to an optimal level of health. The primary goal of tertiary care is to decrease the risk of permanent disability related to disease or illness. Common examples of tertiary care include the following:

- Physical therapy
- Occupational therapy
- Speech therapy
- Respiratory therapy
- Use of durable medical equipment



## Licensure, Accreditation, and Certification

With the many changes and challenges in health care, it is imperative that uniformity is established among healthcare facilities and professionals. Many organizations have developed basic standards necessary to maintain a consistent and competent healthcare system. Various standards are incorporated within licensure, accreditation, and certification requirements throughout the healthcare field.

### Licensure

**Licensure** is legal authority granted to a person or facility to perform specific acts or provide specific services. This authority is granted by governmental agencies, usually at the state level; therefore, requirements and guidelines for approval typically vary. As a mandatory requirement, many healthcare professionals such as physicians and pharmacists cannot legally practice without acquiring licensure. Likewise, facilities such as hospitals and nursing homes cannot legally operate without procuring and maintaining licensure.

## Accreditation

The process of granting recognition to an institution after it has met predetermined standards and qualifications is known as **accreditation**. Healthcare facilities often undergo this rigorous process in order to ensure to consumers that they adhere to the highest standards of care. Accreditation is a voluntary process, yet it is highly recommended. Several accrediting agencies (see Table 1-8) have been established to monitor the quality and commitment of various healthcare facilities to maintain optimal standards of care.

## Certification

**Certification** also recognizes that healthcare facilities have met predetermined standards of care, yet this designation also extends to educational programs as well as to individuals. This process is also voluntary; facilities, programs, and individuals can participate in various types of certification if they wish to receive certain benefits and/or privileges.

**TABLE 1-8 Accrediting Agencies**

Agency	Accredits
Accreditation Association for Ambulatory Health Care (AAAHC)	Ambulatory healthcare facilities such as surgery centers, managed care organizations, and student health centers
American Osteopathic Association (AOA)	All osteopathic medical colleges and healthcare facilities
Commission on Accreditation of Rehabilitation Facilities (CARF)	Rehabilitation, employment, child and family, community, and aging services facilities
Community Health Accreditation Program (CHAP)	Home and community-based healthcare facilities
Joint Commission	Ambulatory care, assisted living, behavioral health, critical access hospitals, home care, hospitals, laboratory services, long-term care, networks, office-based surgery
National Committee for Quality Assurance (NCQA)	Managed care organizations including managed behavioral healthcare organizations, preferred provider organizations, disease management centers, and new health plans

Healthcare facilities wishing to receive Medicare and Medicaid reimbursement must be certified by the state in which they operate; however, if the facility is Joint Commission accredited, it is granted **deemed status**, whereby it is exempt from the certification process.

## **Healthcare Agencies, Organizations, and Associations**

Various healthcare agencies, organizations, and associations have been established to regulate the delivery of health care. These bodies serve to ensure that healthcare consumers and the general public receive quality care, access to healthcare, healthcare education and prevention, and other related services. There are several governmental and nongovernmental bodies that oversee the healthcare delivery process to regulate safety and protection for all involved.

### **Federal Regulatory Agencies**

The federal government is a major regulator of health care in the United States; it has several offices and agencies that establish policies and procedures related to healthcare ownership, financing, and legislation. The U.S. Department of Health and Human Services is the primary governmental agency responsible for administering human services throughout the United States. This parent agency has more than 10 subagencies (see Table 1-9) under its control and it administers over 300 programs that include the following:

- Head Start
- Medicare
- Medicaid
- Temporary Assistance for Needy Families
- Women, Infants, and Children Food Assistance

### **Health Organizations and Associations**

There are a number of other organizations and associations that set standards of care and practice for healthcare providers and facilities. Some of the key organizations include the American Medical Association (AMA), the American College of Surgeons, the American Hospital Association (AHA), and the World Health Organization (WHO).



**TABLE 1-9 United States Department of Health and Human Services Agencies**

<b>Agency</b>	<b>Description</b>
Administration for Children and Families (ACF)	Provides financial family assistance to child support, child care, Head Start, child welfare, and about 60 other programs for children and families
Administration on Aging (AoA)	Provides home and community-based care for the elderly and their caregivers
Agency for Healthcare Research and Quality (AHRQ)	Provides financial, research, and other services for the improvement of the U.S. healthcare system
Agency for Toxic Substances and Disease Registry (ATSDR)	Provides prevention and education services about toxic substances to the public
Centers for Disease Control and Prevention (CDC)	Provides disease and infection education, prevention, and research services for the American public
Centers for Medicare and Medicaid Services (CMS)	Provides quality healthcare services to the indigent, elderly, and other needs-based groups
Food and Drug Administration (FDA)	Provides safety, protection, and education services related to drugs, biological products, medical devices, food, cosmetics, and radiation-emitting products
Health Resources and Services Administration (HRSA)	Provides improved access to healthcare services for uninsured, isolated, and/or medically needy patients
Indian Health Service (IHS)	Provides spiritual, physical, mental, and social health services to American Indians and Alaska natives
National Institutes of Health (NIH)	Provides medical research services to improve, save, and maintain quality of life
Substance Abuse and Mental Health Services Administration (SAMHSA)	Provides services to those with or at risk of mental and/or substance use disorders

*American Medical Association*

Founded in 1847, the AMA was originally established to improve the standards of medical education. Since its inception, the AMA's mission has expanded to include the promotion of medicine and betterment of public health. Headed by a board of trustees, this multidimensional organization provides a number of medical and health resources to both member and nonmember subscribers.

The mission, core values, and vision of the AMA follow:

- Mission: To promote the art and science of medicine and the betterment of public health.
- Core values: (1) leadership; (2) excellence; and (3) integrity and ethical behavior.
- Vision: To be an essential part of the professional life of every physician.

### *American College of Surgeons*

The American College of Surgeons is a not-for-profit organization established to improve the quality of care for surgical patients. This research and education association, founded in 1913, establishes standards for practitioners and educators of surgical medicine. The organization offers educational programs for a variety of patient care settings such as trauma and oncology centers; the association supports ongoing scientific research for surgical practitioners.

### *American Hospital Association*

Founded in 1898, the AHA is a healthcare community of hospitals, healthcare networks, providers, and patients. This association is an advocacy body made up of legislative and executive branches. The AHA represents the needs of its members in the area of national health policy development.

The AHA was founded in Cleveland, Michigan, and was located in Washington, District of Columbia, from 1917 to 1920. In 1920, the association established its headquarters in Chicago, where the majority of employees are still located. The current Washington office was established in 1942 in response to the pressures of shortages brought on by World War II. At that time, the Washington office served as an information center to assist members in contacting the proper federal agencies. Currently, it is the principal lobbying arm of the association. The office of the president and AHA policy, communication, and national advocacy staff are located in the AHA Washington office.

The AHA vision is to establish a society of healthy communities, where all individuals reach their highest potential for health. The mission of the AHA is to advance the health of individuals and com-

munities. The AHA leads, represents, and serves hospitals, health systems, and other related organizations that are accountable to the community and committed to health improvement.

### *World Health Organization*

Established as a specialized agency for health, the WHO serves to help all people attain the highest level of health. This United Nations agency was founded in 1948 to develop holistic health standards, which include complete physical, mental, and social well-being. WHO is the directing and coordinating authority for health within the United Nations system. It is responsible for providing leadership on global health matters, shaping the health research agenda, setting norms and standards, articulating evidence-based policy options, providing technical support to countries, and monitoring and assessing health trends.

## **Resources**

Accreditation Association for Ambulatory Health Care

<http://www.aaahc.org>

American Academy of Physician Assistants Information Center

<http://www.aapa.org>

American Association of Acupuncture and Oriental Medicine

<http://www.aaom.org>

American Association of Colleges of Nursing

<http://www.aacn.nche.edu>

American Association of Medical Assistants

<http://www.aama-ntl.org>

American College of Nurse-Midwives

<http://www.midwife.org>

American College of Surgeons

<http://www.facs.org>

American Hospital Association

<http://www.aha.org>

American Massage Therapy Association

<http://www.amatamassage.org>

American Medical Association

<http://www.ama-assn.org>

American Nurses Association

<http://nursingworld.org>

American Osteopathic Association

<http://www.osteopathic.org>

Centers for Disease Control and Prevention

[www.cdc.gov](http://www.cdc.gov)

Commission on Accreditation of Rehabilitation Facilities

[www.carf.org](http://www.carf.org)

Community Health Accreditation Program

<http://www.chapinc.org>

Joint Commission

<http://www.jointcommission.org>

National Committee for Quality Assurance

<http://www.ncqa.org>

National League for Nursing

<http://www.nln.org>

United States Department of Health and Human Services

<http://www.hhs.gov>

World Health Organization

<http://www.who.int/en/>

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