



Health Assistant

Flexible Instruction Day

Assignment #1

Learning Standard	HEALTH/MEDICAL ASSISTING SERVICES, OTHER Code: 51.0899 Career Cluster: Health Science Health Care Systems
Task # & Description	201 Define the role, functions, and responsibilities of the health care team members. 202 Define the chain of command within the scope of practice of the health care team members.

CONTACT INFORMATION/ASSISTANCE

Instructor Name: Mrs. Blank

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I will be available by email and/or the Remind app from 7:40-12 and 12:30-3:10 to answer your questions. Please reach out if you are having difficulty completing your assignments.

INSTRUCTIONS

- ✓ All work is due on the day we return to school. This is counted towards your attendance **and** as a grade.
- ✓ Read chapter 2 then complete worksheet. Both are included in this packet.

Name: _____

Session: _____

____ / __20__ points

2

Health Care Systems

CHAPTER OBJECTIVES

After completing this chapter, you should be able to:

- Describe at least eight types of private health care facilities
- Analyze at least three government health services agencies and the services offered by each
- Describe at least three services offered by voluntary or nonprofit agencies
- Compare the basic principles of at least four different health insurance plans
- Explain the purpose of organizational structures in health care facilities
- Define, pronounce, and spell all key terms

KEY TERMS

Agency for Healthcare Research and Quality (AHRQ)
assisted living facilities
Centers for Disease Control and Prevention (CDC)
clinics
dental offices
emergency care services
Food and Drug Administration (FDA)
genetic counseling centers
health departments
health insurance plans
Health Insurance Portability and Accountability Act (HIPAA)
health maintenance organizations (HMOs)

home health care
hospice
hospitals
independent living facilities
industrial health care centers
laboratories
long-term care facilities (LTCs or LTCFs)
managed care
Medicaid
medical offices
Medicare
Medigap
mental health facilities
National Institutes of Health (NIH)
nonprofit agencies

Occupational Safety and Health Administration (OSHA)
optical centers
organizational structure
Patient Protection and Affordable Care Act
preferred provider organization (PPO)
rehabilitation facilities
school health services
TRICARE
U.S. Department of Health and Human Services (USDHHS)
voluntary agencies
Workers' compensation
World Health Organization (WHO)

2:1 Private Health Care Facilities

Today, health care systems include the many agencies, facilities, and personnel involved in the delivery of health care. According to U.S. government statistics, health care is one of the largest and fastest-growing industries in the United States. This industry employs over 17 million workers in more than 200 different health care careers. It attracts people with a wide range of educational backgrounds because it offers multiple career options. By the year 2020, employment is expected to increase by 5.6 million jobs to over 22.1 million workers. Health care spending in the United States is projected to increase from over 2.7 trillion dollars in 2012 to 4.6 trillion dollars in 2020.

Many different health care facilities provide services that are a part of the industry called *health care* (Figure 2-1). Most private health care facilities require a fee for services. In some cases, grants and contributions help provide financial support for these facilities. A basic description of the various facilities will help provide an understanding of the many different types of services included under the umbrella of the health care industry.

Hospitals

Hospitals are one of the major types of health care facilities. They vary in size and types of service provided. Some hospitals are small and serve the basic needs of a community; others are large, complex centers offering a wide range of services including diagnosis, treatment, education, and research. Hospitals are also classified as private or proprietary (operated for profit), religious, nonprofit or voluntary, and government, depending on the sources of income received by the hospital.

There are many different types of hospitals. Some of the more common ones include:

- **General hospitals:** treat a wide range of conditions and age groups; usually provide diagnostic, medical, surgical, and emergency care services
- **Specialty hospitals:** provide care for special conditions or age groups; examples include burn hospitals, oncology (cancer) hospitals, pediatric (or children's) hospitals, psychiatric hospitals (dealing with mental diseases and disorders), orthopedic hospitals (dealing with bone, joint, or muscle disease), and rehabilitative hospitals (offering services such as physical and occupational therapy)
- **Government hospitals:** operated by federal, state, and local government agencies; include the many facilities

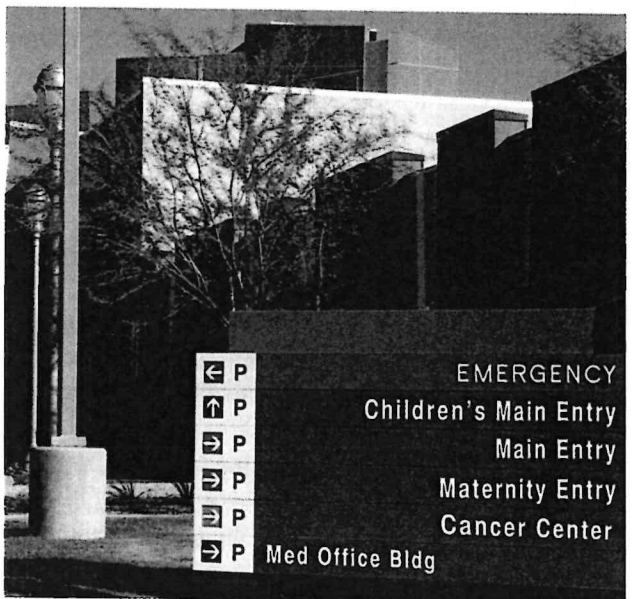
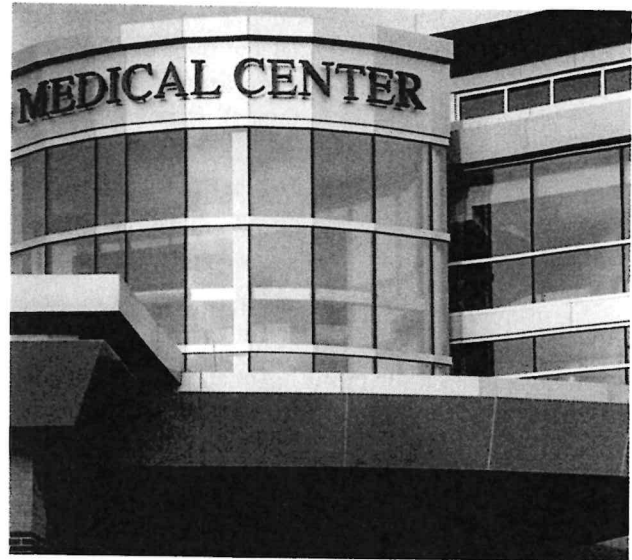


FIGURE 2-1 Different health care facilities. Top image © iStockphoto/Steve Shepard, Middle Image © iStockphoto/Catherine Yeulet, and Bottom Image © iStockphoto/Paul Hill

located throughout the world that provide care for government service personnel and their dependents; examples are Veterans Administration hospitals (which provide care for veterans), state psychiatric hospitals, and state rehabilitation centers

- *University or college medical centers:* provide hospital services along with research and education; can be funded by private and/or governmental sources

In many instances the classifications and types of hospitals can overlap. For example, a hospital in a major city can be a for-profit hospital, but still receive government funding. A hospital can also be a general hospital, but offer specialty services such as oncology and pediatrics.

Long-Term Care Facilities

Long-term care facilities (LTCs or LTCFs) mainly provide assistance and care for elderly patients, usually called *residents*. However, they also provide care for individuals with disabilities or handicaps and individuals with chronic or long-term illness.

There are many different types of long-term care facilities. Some of the more common ones include:

- *Residential care facilities (nursing homes or geriatric homes):* designed to provide basic physical and emotional care to individuals who can no longer care for themselves; help individuals with activities of daily living (ADLs), provide a safe and secure environment, and promote opportunities for social interactions
- *Extended care facilities or skilled care facilities:* designed to provide skilled nursing care and rehabilitative care to prepare patients* or residents for return to home environments or other long-term care facilities; some have *subacute units* designed to provide services to patients who need rehabilitation to recover from a major illness or surgery, treatment for cancer, or treatments such as dialysis for kidney disease or heart monitoring
- **Independent living and assisted living facilities:** allow individuals who can care for themselves to rent or purchase an apartment in the facility; provide services such as meals, housekeeping, laundry, transportation, social events, and basic medical care (such as assisting with medications)

Most assisted or independent living facilities are associated with nursing homes, extended care facilities, and/or skilled care facilities. This allows an individual

to move readily from one level of care to the next when health needs change. Many long-term care facilities also offer special services such as the delivery of meals to the homes of the elderly, chronically ill, or people with disabilities. Some facilities offer senior citizen or adult day care centers, which provide social activities and other services for the elderly. The need for long-term care facilities has increased dramatically because of the large increase in the number of elderly people. Many health care career opportunities are available in these facilities, and there is a shortage of nurses and other personnel.

Medical Offices

Medical offices vary from offices that are privately owned by one physician to large complexes that operate as corporations and employ many physicians and other health care professionals. Medical services obtained in these facilities can include diagnosis (determining the nature of an illness), treatment, examination, basic laboratory testing, minor surgery, and other similar care. Some medical physicians treat a wide variety of illnesses and age groups, but others specialize in and handle only certain age groups or conditions. Examples of specialties include pediatrics (infants and children), cardiology (diseases and disorders of the heart), and obstetrics (care of the pregnant female).

Dental Offices

Dental offices vary in size from offices that are privately owned by one or more dentists to dental clinics that employ a group of dentists. In some areas, major retail or department stores operate dental clinics. Dental services can include general care provided to all age groups or specialized care offered to certain age groups or for certain dental conditions.

Clinics or Satellite Centers

Clinics, also called *satellite clinics* or *satellite centers*, are health care facilities found in many types of health care. Some clinics are composed of a group of medical or dental doctors who share a facility and other personnel. Other clinics are operated by private groups who provide special care. Examples include:

- *Surgical clinics or surgicenters:* perform minor surgical procedures; frequently called “one-day” surgical centers because patients are sent home immediately after they recover from their operation
- *Urgent, walk-in, or emergency care clinics:* provide first aid or emergency care to ill or injured patients
- *Rehabilitation clinics:* offer physical, occupational, speech, and other similar therapies

*In some health care facilities, patients are referred to as *clients*. For the purposes of this text, *patient* will be used.

- *Substance abuse clinics:* provide rehabilitation for drug and alcohol abuse
- *Specialty clinics:* provide care for specific diseases; examples include diabetic clinics, kidney dialysis centers, and oncology (cancer) clinics
- *Outpatient clinics:* usually operated by hospitals or large medical groups; provide care for outpatients (patients who are not admitted to the hospital)
- *Health department clinics:* may offer clinics for pediatric health care, treatment of sexually transmitted diseases and respiratory disease, immunizations, and other special services
- *Medical center clinics:* usually located in colleges or universities; offer clinics for various health conditions; offer care and treatment and provide learning experiences for medical students

Optical Centers

Optical centers can be individually owned by an ophthalmologist or optometrist or they can be part of a large chain of stores. They provide vision examinations, prescribe eyeglasses or contact lenses, and check for the presence of eye diseases.

Emergency Care Services

Emergency care services provide special care for victims of accidents or sudden illness. Facilities providing these services include ambulance services, both private and governmental; rescue squads, frequently operated by fire departments; emergency care clinics and centers; emergency departments operated by hospitals; and helicopter or airplane emergency services that rapidly transport patients to medical facilities for special care.

Laboratories

Laboratories are often a part of other facilities but can operate as separate health care services. Medical laboratories can perform special diagnostic tests such as blood or urine tests. Dental laboratories can prepare dentures (false teeth) and many other devices used to repair or replace teeth. Medical and dental offices, small hospitals, clinics, and many other health care facilities frequently use the services provided by laboratories.

Home Health Care

Home health care agencies are designed to provide care in a patient's home (Figure 2-2). The elderly and the disabled frequently use the services of these agencies. Examples of such services include nursing care, personal care, therapy (physical, occupational, speech, respiratory),



FIGURE 2-2 Many types of health care can be provided in a patient's home. © iStockphoto/Steve Debenport

and homemaking (food preparation, cleaning, and other household tasks). Health departments, hospitals, private agencies, government agencies, and nonprofit or volunteer groups can offer home care services.

Hospice

Hospice agencies provide care for terminally ill persons who usually have life expectancies of 6 months or less. Care can be provided in the person's home or in a hospice facility. Hospice offers palliative care, or care that provides support and comfort, that is directed toward allowing the person to die with dignity. Psychological, social, spiritual, and financial counseling are provided for both the patient and the family. Hospice also provides support to the family following a patient's death.

Mental Health Facilities

Mental health facilities treat patients with mental disorders and diseases. Examples of these facilities include guidance and counseling centers, psychiatric clinics and hospitals, chemical abuse treatment centers (dealing with alcohol and drug abuse), and physical abuse treatment centers (dealing with child abuse, spousal abuse, and geriatric [elderly] abuse).

Genetic Counseling Centers

Genetic counseling centers can be independent facilities or can be located in another facility such as a hospital, clinic, or physician's office. Genetic counselors work with couples or individuals who are pregnant or considering a pregnancy. They perform prenatal (before birth) screening tests, check for genetic abnormalities and birth defects, explain the results of the tests, identify medical options when a birth defect is present, and help the individuals cope with the psychological issues caused by a genetic disorder. Examples of genetic

disorders include Down's syndrome and cystic fibrosis. Counselors frequently consult with couples prior to a pregnancy if the woman is in her late childbearing years, has a family history of genetic disease, or is of a specific race or nationality with a high risk for genetic disease.

Rehabilitation Facilities

Rehabilitation facilities are located in hospitals, clinics, and/or private centers. They provide care to help patients with physical or mental disabilities obtain maximum self-care and function. Services may include physical, occupational, recreational, speech, and hearing therapy.

Health Maintenance Organizations

Health maintenance organizations (HMOs) are both health care delivery systems and types of health insurance. They provide total health care services that are primarily directed toward preventive health care for a fee that is usually fixed and prepaid. Services include examinations, basic medical services, health education, and hospitalization or rehabilitation services as needed. Some HMOs are operated by large industries or corporations; others are operated by private agencies. They often use the services of other health care facilities including medical and dental offices, hospitals, rehabilitative centers, home health care agencies, clinics, and laboratories.

Industrial Health Care Centers

Industrial health care centers or *occupational health clinics* are found in large companies or industries. Such centers provide health care for employees of the industry or business by performing basic examinations, teaching accident prevention and safety, and providing emergency care. Major resort industries, such as Disney, may also provide emergency health care to visitors.

School Health Services

School health services are found in schools and colleges. These services provide emergency care for victims of accidents and sudden illness; perform tests to check for health conditions such as speech, vision, and hearing problems; promote health education; and maintain a safe and sanitary school environment. Many school health services also provide counseling.

2:2 Government Agencies

In addition to the government health care facilities mentioned previously, other health services are offered at international, national, state, and local levels. Government

services are tax supported. Examples of government agencies include:

- **World Health Organization (WHO):** an international agency sponsored by the United Nations; compiles statistics and information on disease, publishes health information, and investigates and addresses serious health problems throughout the world; Internet address: www.who.int
- **U.S. Department of Health and Human Services (USDHHS):** a national agency that deals with the health problems in the United States; Internet address: www.hhs.gov
- **National Institutes of Health (NIH):** a division of the USDHHS; involved in research on disease; Internet address: www.nih.gov
- **Centers for Disease Control and Prevention (CDC):** another division of the USDHHS; concerned with the causes, spread, and control of diseases in populations (Figure 2-3); Internet address: www.cdc.gov
- **Food and Drug Administration (FDA):** a federal agency responsible for regulating food and drug products sold to the public; Internet address: www.fda.gov
- **Agency for Healthcare Research and Quality (AHRQ):** a federal agency established to improve the quality, safety, efficiency, and effectiveness of health care for Americans; Internet address: www.ahrq.gov
- **Occupational Safety and Health Administration (OSHA):** establishes and enforces standards that protect workers from job-related injuries and illnesses; Internet address: www.osha.gov
- **Health departments:** provide health services as directed by the U.S. Department of Health and Human Services (USDHHS); also provide specific services needed by the state or local community; examples of



FIGURE 2-3 The Centers for Disease Control and Prevention (CDC) deals with the causes, spread, and control of diseases in populations. CDC/James Gathany

services include immunization for disease control, inspections for environmental health and sanitation, communicable disease control, collection of statistics and records related to health, health education, clinics for health care and prevention, and other services needed in a community; Internet address: www.hhs.gov; use the search box to locate the web address of a specific state or local health department

2:3 Voluntary or Nonprofit Agencies

Voluntary agencies, frequently called **nonprofit agencies**, are supported by donations, membership fees, fund-raisers, and federal or state grants. They provide health services at national, state, and local levels.

Examples of nonprofit agencies include the American Cancer Society, American Heart Association, American Respiratory Disease Association, American Diabetes Association, National Mental Health Association, Alzheimer's Association, National Kidney Foundation, Leukemia and Lymphoma Society, March of Dimes Foundation, American Red Cross, and Autism Speaks. Many of these organizations have national offices as well as branch offices in states and/or local communities.

As indicated by their names, many such organizations focus on one specific disease or group of diseases. Each organization typically studies the disease, provides funding to encourage research directed at curing or treating the disease, and promotes public education regarding information obtained through research. These organizations also provide special services to victims of disease, such as purchasing medical equipment and supplies, providing treatment centers, and supplying information regarding other community agencies that offer assistance.

Nonprofit agencies employ many health care workers in addition to using volunteer workers to provide services.

2:4 Health Insurance Plans

The cost of health care is a major concern of everyone who needs health services. Statistics show that the cost of health care is more than 17 percent of the gross national product (the total amount of money spent on all goods and services). Also, health care costs are increasing much faster than other costs of living. To pay for the costs of health care, most people rely on **health insurance plans**. Without insurance, the cost of an illness can mean financial disaster for an individual or family.

Health insurance plans are offered by several thousand insurance agencies. A common example is Blue Cross/Blue Shield (Figure 2-4). In this type of plan, a *premium*, or a fee the individual pays for insurance coverage, is made to the insurance company. When the insured individual incurs health care expenses covered by the insurance plan, the insurance company pays for the services. The amount of payment and the type of services covered vary from plan to plan. Common insurance terms include:

- **Deductibles:** amounts that must be paid by the patient for medical services before the policy begins to pay
- **Co-insurance:** requires that specific percentages of expenses are shared by the patient and insurance company; for example, in an 80–20 percent co-insurance, the company pays 80 percent of covered expenses, and the patient pays the remaining 20 percent
- **Co-payment:** a specific amount of money a patient pays for a particular service, for example, \$10 for each physician visit regardless of the total cost of the visit

Many individuals have insurance coverage through their places of employment (called employer-sponsored health insurance or group insurance), where the premiums are paid by the employer. In most cases, the individual also pays a percentage of the premium. Private policies are also available for purchase by individuals.

A health maintenance organization (HMO) is another type of health insurance plan that provides a managed care plan for the delivery of health care services. A monthly fee or premium is paid for membership, and the fee stays the same regardless of the amount of health care used. The premium can be paid by an employer and/or an individual. Total care provided is directed toward preventive-type health care. An individual insured under this type of plan has ready access to health examinations and early treatment and detection of disease.



FIGURE 2-4 Health insurance plans help pay for the costs of health care. Courtesy of Empire Blue Cross and Blue Shield

Because most other types of insurance plans do not cover routine examinations and preventive care, the individual insured by an HMO can therefore theoretically maintain a better state of health. The disadvantage of an HMO is that the insured is required to use only HMO-affiliated health care providers (doctors, laboratories, hospitals) for health care. If a nonaffiliated health care provider is used instead, the insured usually must pay for the care.

A **preferred provider organization (PPO)** is another type of managed care health insurance plan usually provided by large industries or companies to their employees. The PPO forms a contract with certain health care agencies, such as a large hospital and/or specific doctors and dentists, to provide certain types of health care at reduced rates. Employees are restricted to using the specific hospital and/or doctors, but the industry or company using the PPO can provide health care at lower rates. PPOs usually require a deductible and a co-payment. If an enrollee uses a nonaffiliated provider, the PPO may require co-payments of 40–60 percent.

The government also provides health insurance plans for certain groups of people. Two of the main plans are Medicare and Medicaid.

Medicare is a federal government program that provides health care for almost all individuals over the age of 65, for any person with a disability who has received Social Security benefits for at least 2 years, and for any person with end-stage renal (kidney) disease. Medicare consists of three kinds of coverage: type A for hospital insurance, type B for medical insurance, and type D for pharmaceutical (medication) expenses. Type A covers hospital services, care provided by an extended care facility or home-health care agency after hospitalization, and hospice care for people with a terminal illness. Type B offers additional coverage for doctors' services, outpatient treatments, therapy, clinical laboratory services, and other health care. The individual does pay a premium for type B coverage and also must pay an initial deductible for services. In addition, Medicare pays for only 80 percent of the services; the individual must either pay the balance or have another insurance policy to cover the expenses.

Medigap policies are health insurance plans that help pay expenses not covered by Medicare. These policies are offered by private insurance companies and require the payment of a premium by the enrollee. Medigap policies must meet specific federal guidelines. They provide options that allow enrollees to choose how much coverage they want to purchase.

Medicaid is a medical assistance program that is jointly funded by the federal government and state governments but operated by individual states. Benefits and individuals covered under this program vary slightly from state to state because each state has the right to establish its own eligibility standards, determine the type and scope of services, set the rate of payment for

services, and administer its own program. In most states, Medicaid pays for the health care of individuals with low incomes, children who qualify for public assistance, and individuals who are physically disabled or blind. Generally, all state Medicaid programs provide hospital services, physician's care, long-term care services, and some therapies. In some states, Medicaid offers dental care, eye care, and other specialized services.

The *Children's Health Insurance Program (CHIP)* was established in 1997 to provide health care to uninsured children of working families who earn too little to afford private insurance but too much to be eligible for Medicaid. It provides inpatient and outpatient hospital services, physician's surgical and medical care, laboratory and X-ray tests, and well-baby and well-child care, including immunizations.

Workers' compensation is a health insurance plan providing treatment for workers injured on the job. It is administered by the state, and payments are made by employers and the state. In addition to providing payment for needed health care, this plan also reimburses the worker for wages lost because of an on-the-job injury.

TRICARE is a U.S. government health insurance plan for all military personnel. It provides care for all active duty members and their families, survivors of military personnel, and retired members of the Armed Forces. The Veterans Administration provides for military veterans.

Managed care is an approach that has developed in response to rising health care costs. Employers, as well as insurance companies who pay large medical bills, want to ensure that such money is spent efficiently rather than wastefully. The principle behind managed care is that all health care provided to a patient must have a purpose. A second opinion or verification of need is frequently required before care can be provided. Every effort is made to provide preventive care and early diagnosis of disease to avoid the high cost of treating disease. For example, routine physical examinations, well-baby care, immunizations, and wellness education to promote good nutrition, exercise, weight control, and healthy living practices are usually provided under managed care. Employers and insurance companies create a network of doctors, specialists, therapists, and health care facilities that provide care at the most reasonable cost. HMOs and PPOs are the main providers of managed care, but many private insurance companies are establishing health care networks to provide care to their subscribers. As these health care networks compete for the consumer dollar, they are required to provide quality care at the lowest possible cost. The health care consumer who is enrolled in a managed care plan receives quality care at the most reasonable cost but is restricted in choice of health care providers.

Health insurance plans do not solve all the problems of health care costs, but they do help many people

by paying for all or part of the cost of health services. However, as the cost of insurance increases, many employers are less willing to offer health care insurance. Individuals with chronic illnesses often find they cannot obtain insurance coverage if their place of employment changes. This is one reason the federal government passed the **Health Insurance Portability and Accountability Act (HIPAA)** in 1996. This act has five main components:

- *Health Care Access, Portability, and Renewability:* limits exclusions on preexisting conditions to allow for the continuance of insurance even with job changes, prohibits discrimination against an enrollee or beneficiary based on health status, guarantees renewability in multiemployer plans, and provides special enrollment rights for individuals who lose insurance coverage in certain situations such as divorce or termination of employment
- *Preventing Health Care Fraud and Abuse; Administrative Simplification, and Medical Liability Reform:* establishes methods for preventing fraud and abuse and imposes sanctions or penalties if fraud or abuse does occur, reduces the costs and administration of health care by adopting a single set of electronic standards to replace the wide variety of formats used in health care, provides strict guidelines for maintaining the confidentiality of health care information and the security of health care records, and recommends limits for medical liability. The confidentiality requirement is discussed in more detail in Section 5:1 under Privacy Act.
- *Tax-Related Health Provisions:* promotes the use of medical savings accounts (MSAs) by allowing tax deductions for monies placed in the accounts, establishes standards for long-term care insurance, allows for the creation of state insurance pools, and provides tax benefits for some health care expenses
- *Application and Enforcement of Group Health Plan Requirements:* establishes standards that require group health care plans to offer portability, access, and renewability to all members of the group
- *Revenue Offsets:* provides changes to the Internal Revenue Code for HIPAA expenses

Compliance with all HIPAA regulations was required by April 2004 for all health care agencies. These regulations have not solved all of the problems of health care insurance, but they have provided consumers with more access to insurance and greater confidentiality in regard to medical records. In addition, standardization of electronic health care records, reductions in administrative costs, increased tax benefits, and decreasing fraud and abuse in health care have reduced health care costs for everyone.

Major changes to health care insurance have been provided by the **Patient Protection and Affordable Care Act**. This act was signed into law in March of 2010, and by 2014 most of the provisions of the act were in place. The primary provisions of this law are as follows:

- Guaranteed issue that requires all insurers to charge the same premium to all applicants of the same gender, age, and geographic location, regardless of pre-existing conditions
- Prohibits insurance companies from rescinding coverage to any individual as long as premiums are paid
- Expands Medicaid eligibility to include families and individuals with incomes up to 133% of the poverty level unless a particular state opts out of this requirement
- Creates affordable insurance exchanges in every state that provide a more organized and competitive market for insurance, offer a choice of plans to individuals or small businesses, and establish common rules regarding the offering and pricing of insurance
- Mandates that all individuals secure minimum health insurance and imposes a fine on those who do not obtain insurance under the shared responsibility rules; special exemptions do exist such as financial hardship, religious beliefs, individuals who are American Indians, individuals for whom the lowest cost health care plan exceeds 8% of income, and individuals who have income below the lowest tax filing threshold
- Provides subsidies for low-income families, individuals, or very small businesses, on a sliding income scale of between 100% and up to 400% of the poverty level, to purchase insurance through a health insurance exchange
- Allows young adults to be covered under their parent's policy up to age 26
- Provides improvement in enrollment for Medicaid and CHIP
- Enforces a "shared responsibility payment" or fine per full-time employee that must be made by any firm that employs more than 50 people and does not offer health insurance
- Improves benefits for Medicare and prescription drug coverage
- Allows a restructuring of Medicare reimbursement from fee-for-service to bundled payments; for example, a specific amount is paid to a group of physicians for treating an individual with a specific diagnosis instead of individual payments for each treatment provided

- Gives a small business tax credit to qualified small businesses and nonprofit organizations who provide health insurance for employees
- Establishes a national voluntary insurance program that allows individuals to purchase community living assistance services and support for long-term care
- Establishes a Prevention and Public Health Fund to create programs that promote good health and prevent disease
- Provides additional support for medical research and the National Institutes of Health
- Requires minimum health insurance standards and removes annual and lifetime coverage caps
- Eliminates co-payments for insurance benefits that have been mandated as essential coverage benefits such as those for specified preventive care services

TODAY'S RESEARCH TOMORROW'S HEALTH CARE

Nature as a Pharmacy?

Throughout history, many medicines have been derived from natural resources. Examples include aspirin, which comes from willow bark; penicillin, which comes from fungus; and the cancer drug Taxol, which comes from the Pacific yew tree. Recognizing this, many scientists believe that nature is a pharmaceutical gold mine and are exploring the vast supply of materials present in the oceans and in the earth.

The National Cancer Institute (NCI) has more than 50,000 samples of plants and 10,000 samples of marine organisms stored in Frederick, Maryland. Every sample is crushed into a powder and made into extracts that can be tested against human cancer cells. Over 110,000 extracts of these samples are available to other scientists who evaluate their effectiveness against conditions such as viral diseases and infections. To date, more than 4,000 extracts have shown promise and are being used in more advanced studies. One compound, Halichondrin B, labeled "yellow slimy" by researchers, is an extract taken from a deep-sea sponge found in New Zealand. Scientists created a synthetic version of the active component in Halichondrin B, called E7389. After extensive testing, the drug Eribulin that was created from this compound was approved by the FDA in 2010 as a treatment for metastatic breast cancer. Bristol-Myers received FDA approval for another drug, ixabepilone, that is extracted from garden soil bacteria and is also used to treat metastatic breast cancer. Wyeth's drug Rapamune was isolated from soil on Easter Island and approved for preventing kidney rejection after transplants. Another novel drug involves photodynamic activity. A substance called psoralen is obtained from a Nile-dwelling weed called ammi. Psoralen is inactive until it is exposed to light. When it is activated, it attaches to the DNA of cancer cells and kills them. Research led to the approval of a psoralen-like drug that is exposed to certain wavelengths of light and used to treat some forms of lymphoma, a cancer of white blood cells. By creating synthetic versions of the compounds, scientists are preserving natural resources while also benefiting from them.

Other natural products are now being tested and modified. Clinical trials are being conducted on ecteinascidin, which is a substance obtained from a sea creature called a tunicate (a marine organism that spends most of its life attached to docks or rocks). Lab tests show it is safe for humans and that it may be an effective treatment for soft-tissue sarcomas (tumors of the muscles, tendons, and supportive tissues).

Other unique studies involve cone snails found in the reefs surrounding Australia, Indonesia, and the Philippines. These animals produce a unique venom containing nerve toxins. Some of these venoms are being studied as pain relievers because they block pain signals from reaching the brain. Researchers in Oslo, Norway, are studying and testing plant extracts from the sweet wormwood plant and the bark of the cinchona tree to determine if an effective drug can be created to destroy both the malaria parasite and the mosquitoes that carry the parasite. An intriguing bioluminescent bacterium named *Vibrio fischeri* has researchers trying to develop antibiotics that prevent bacterial resistance. This special bacterium emits light when it senses that there are enough bacteria to draw prey that can be used for sources of nourishment, a phenomenon called "quorum sensing," similar to the "safety in numbers" concept. When there are enough of these bacteria, they signal each other and produce an enzyme that creates light. Disease-producing bacteria also use quorum sensing, and when a quorum is reached, they form slimy, sticky biofilms and produce toxins that make people sick. If researchers can develop a class of antibiotics that disrupt the signals bacteria use to sense a quorum or destroy the biofilms that are formed, they can destroy the action of the bacteria and render them harmless. Since the drugs do not kill the bacteria, the bacteria would be less likely to develop resistance. As scientists continue to explore all that nature has to offer, it is possible they will find cures for many cancers, diseases, and infections.

- Requires insurance companies to spend at least 80% to 85% of premiums collected on medical costs or to refund excess money to the insured individuals
- Mandates that insurance companies provide coverage for individuals participating in clinical trials

2:5 Organizational Structure

All health care facilities must have some type of **organizational structure**. The structure may be complex, as in larger facilities, or simple, as in smaller facilities. Organizational structure always, however, encompasses a line of authority or chain of command. The organizational structure should indicate areas of responsibility and lead to the most efficient operation of the facility.

A sample organizational chart for a large general hospital is shown in Figure 2-5. This chart shows organization by department. Each department, in turn, can have an organizational chart similar to the one shown for the nursing department in Figure 2-5. A sample organizational chart for a small medical office is shown in Figure 2-6. The organizational structure will vary with the size of the office and the number of people employed.

In both organizational charts illustrated, the lines of authority are clearly indicated. It is important for health care workers to identify and understand their respective positions in a given facility's organizational structure. By doing this, they will know their lines of authority and understand who are the immediate supervisors in charge of their work. Health care workers must

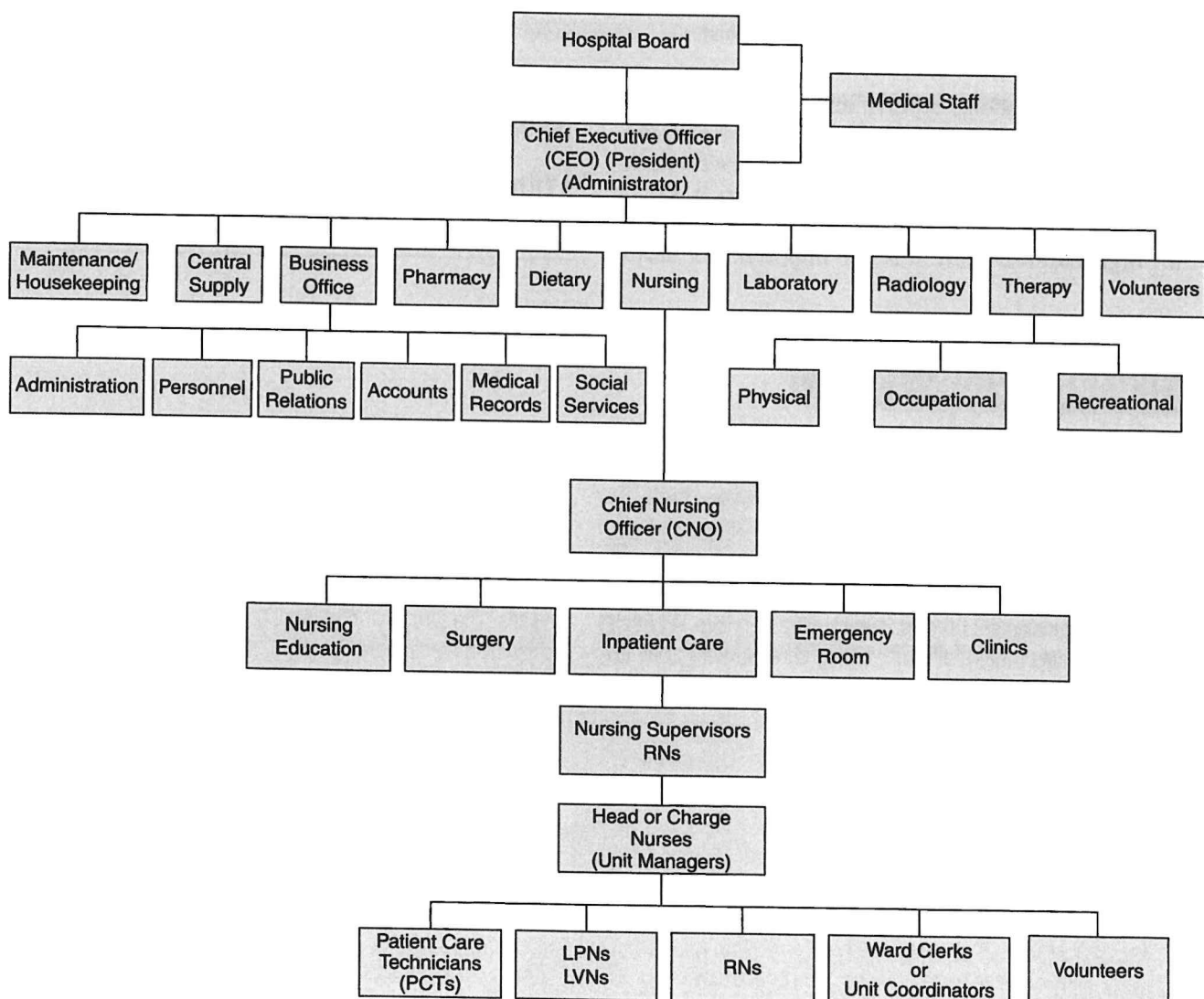


FIGURE 2-5 A sample hospital organizational chart. Copyright © Cengage Learning®. All Rights Reserved.

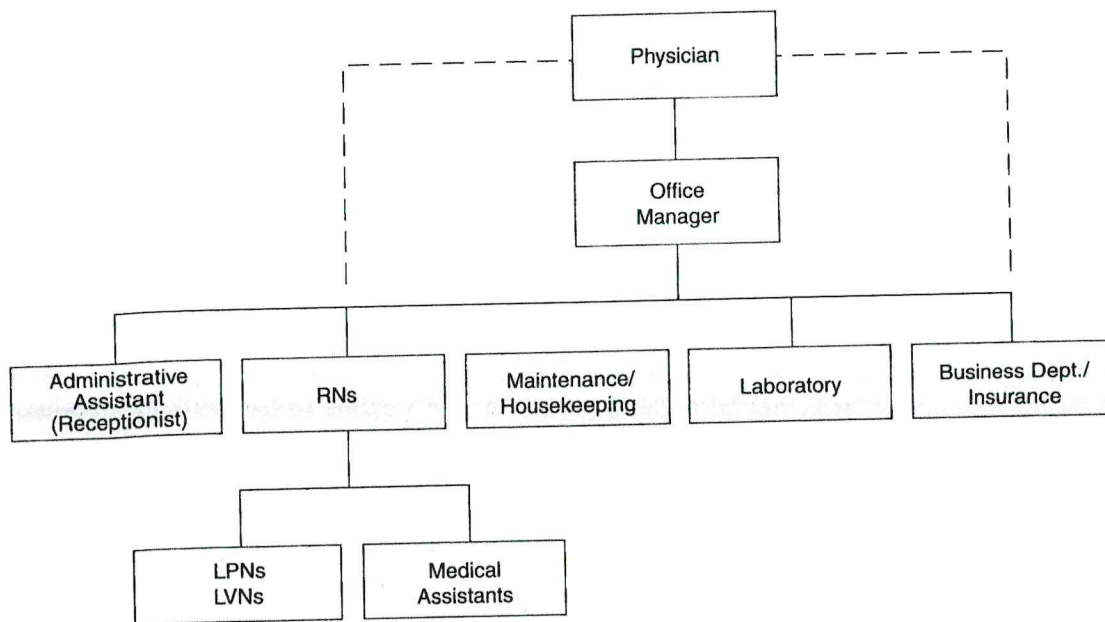


FIGURE 2-6 A sample medical office organizational chart. Copyright © Cengage Learning®. All Rights Reserved.

always take questions, reports, and problems to their immediate supervisors, who are responsible for providing necessary assistance. If immediate supervisors cannot answer the question or solve the problem, it is their responsibility to take the situation to the next level in the organizational chart. It is also important for health

care workers to understand the functions and goals of the organization.

STUDENT: Go to the workbook and complete the assignment sheet for Chapter 2, Health Care Systems.

CHAPTER 2 SUMMARY

Health care, one of the largest and fastest growing industries in the United States, encompasses many different types of facilities that provide health-related services. These include hospitals, long-term care facilities, medical and dental offices, clinics, laboratories, industrial and school health services, and many others. Government and nonprofit or voluntary agencies also provide health care services. All health care facilities require different health care workers at all levels of training.

Many types of health insurance plans are available to help pay the costs of health care. Insurance does not usually cover the entire cost of care, however. It is important for consumers to be aware of the types of coverage provided by their respective insurance plans.

Organizational structure is important in all health care facilities. The structure can be complex or simple, but it should show a line of authority or chain of command within the facility and indicate areas of responsibility.

CHAPTER 2 HEALTH CARE SYSTEMS

ASSIGNMENT SHEET

Grade _____ Name _____

INTRODUCTION: An awareness of the many different kinds of health care systems is important for any health care worker. This assignment will help you review the main facts on health care systems.

INSTRUCTIONS: Read the information on Health Care Systems. Then follow the instructions in each section to complete this assignment.

A. Completion or Short Answer: In the space provided, print the word(s) that best completes the statement or answers the question.

1. Unscramble the following words to identify some health care facilities.
 - a. RAALOTBYRO
 - b. TLEHHA NNCIAMTNAEE
 - c. OLGNETMR AREC
 - d. UNLTISIDAR ETHLAH
 - e. MNCEGEREY AECR
 - f. LNTEMA LHTEHA
 - g. LNCCII
 - h. EAIINRIABHTLTO
 - i. POTSAHIL
2. Place the name of the type of health care facility next to the brief description of the facility.
 - a. _____ provide assistance and care mainly for elderly patients
 - b. _____ provide special care for accidents or sudden illness
 - c. _____ deal with mental disorders and diseases
 - d. _____ health centers located in large companies or industries
 - e. _____ offices owned by one or more dentists
 - f. _____ perform special diagnostic tests
 - g. _____ provide care in a patient's home
 - h. _____ provide physical, occupational, and other therapies
 - i. _____ check for genetic abnormalities and birth defects
3. Hospitals are classified into four types depending on the sources of income received. List the four (4) main types.

4. Differentiate between residential care facilities, extended care facilities, and independent living facilities.
5. List three (3) services offered by medical offices.
6. Identify at least three (3) different types of clinics.
7. List three (3) examples of services that can be provided by home health care agencies.
8. What is palliative care?
9. What is the purpose or main goal of the care provided by rehabilitation facilities?
10. Identify three (3) services offered by school health services.
11. An international agency sponsored by the United Nations is the _____. A national agency that deals with health problems in America is the _____. Another national organization that is involved in the research of disease is the _____. A federal agency that establishes and enforces standards that protect workers from job-related injuries and illnesses is the _____. The federal agency that researches the quality of health care delivery and identifies the standards of treatment that should be provided is the _____.
12. List four (4) services that can be offered by state and local health departments.
13. Nonprofit or voluntary agencies provide many services.
 - a. How do these agencies receive their funding?
 - b. List two (2) services provided by these facilities.

14. Define the following terms related to insurance plans.

- a. premium:
- b. deductible:
- c. 75%/25% co-insurance:
- d. co-payment:
- e. HMOs:
- f. PPOs:

15. a. What is one advantage of HMOs?

b. What is one disadvantage of HMOs?

16. How can an industry or company provide health care at lower rates?

17. Identify the individuals who are usually covered under the following plans.

Medicare:

Medicaid:

Children's Health Insurance Program:

Workers' Compensation:

TRICARE:

18. Why did the concept of managed care develop? What is the principle behind managed care?

19. If you have a pre-existing medical condition and you lose your job, what act protects your accessibility to health insurance coverage?

20. Review the five (5) components of HIPAA. Create three examples of how a health care facility or worker could be in violation of HIPAA regulations.
21. All of the following are a provision of the Patient Protection and Affordable Care Act except:
- a. creation of health insurance exchanges in each state
 - b. expansion of Medicaid eligibility
 - c. requirement of existing insurance policies to meet all the provisions of this act
 - d. implementation of guaranteed issue
-
22. What is the purpose for an organizational structure in a health care facility?