

CHAPTER 2

The History of Health and Health Education/Promotion

CHAPTER OBJECTIVES

After reading this chapter and answering the questions at the end, you should be able to:

- Discuss how health beliefs and practices have changed from the earliest humans to the present day.
- Identify the dual roots of modern health education/promotion.
- Explain why a need for professional health education specialists emerged.
- Trace the history of public health in the United States.
- Relate the history of school health from the mid-1800s to the present.
- Identify important governmental publications from 1975 to the present and describe how these publications have impacted health promotion and education.

Although the history of health education/promotion as a profession is slightly more than 100 years old, the concept of educating about health has been around since the dawn of humans. This chapter discusses the history of health, health care, and health education/promotion from the earliest human records to the present. The main focus is on Northern Africa and Europe. These areas had the greatest influence on the development of health knowledge and health care in the United States. Although other parts of the world—for example, the Far East, Africa, Central America, and South America—contributed to the history of health and health care, their accounts

are not as directly relevant to the history of health in the United States.

It is important that students recognize the difference between “educating about health,” which can be done by anyone who believes they have knowledge about health to share with someone else, and “health education/promotion,” which is done by a professionally trained health education specialist. The need for professional health education specialists emerged as human knowledge of health and health care increased. This chapter emphasizes the health education/promotion profession during the past 150 years as it evolved from the dual roots of school health and

public health. You cannot fully appreciate the health education/promotion profession without understanding its origin. History reveals how progress was made over time. It also depicts the obstacles faced by those who promoted health improvements throughout the years. “At the same time, historical study shows us that despite the difficulties, change is possible, given dedication, organization and persistence. Historical case studies may be able to teach us useful lessons about successful strategies used by public health reformers in the past” (Fee & Brown, 1997, p. 1763).

Early Humans

We assume that the earliest humans learned by trial and error to distinguish between things that were healthful and those that were harmful. They were able to observe how animals bathed to cool their bodies and remove external parasites, apply mud to calm insect bites, consume certain herbs to provide medicinal benefits and avoid other herbs that were poisonous (Goerke & Stebbins, 1968, p. 5).

It does not stretch the imagination too far to see how education about health first took place. Someone may have eaten a particular plant or herb and become ill. That person would then warn (educate) others against eating the same substance. Conversely, someone may have ingested a plant or an herb that produced a desired effect. That person would then encourage (educate) others to use this substance. Through observation, trial, and error, other types of health-related knowledge were discovered. Eventually, this knowledge was transformed into rules or taboos for a given society. Rules about preserving food and how to bury the dead may have been implemented. Perhaps taboos against defecation within the tribe’s communal area or near sources of drinking water were established (McKenzie & Pinger, 2015). The trial and error method, which undoubtedly produced serious illness and even death among some



Figure 2.1 Preparation of medicine from honey (the leaf from an Arabic translation of the *Materia Medica of Dioscorides*, dated 1224 Iraq, Baghdad School).

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early humans, gradually became less needed. Knowledge was passed verbally from one generation to the next, preventing at least some of the potential ill effects of everyday life. As society progressed even further, this knowledge was written down and saved (see **Figure 2.1**).

There was still much more unknown than known about protecting health. Disease and death were probably much more common than health and longevity. To early humans, it was puzzling when disease and death occurred for no apparent reason. In an attempt to make these events seem more rational, early man often attributed disease and accidents to magical spirits, which were believed to live in trees, animals, the earth, and the air. When these spirits were angered, they would punish

individuals or communities with disease and death (Goerke & Stebbins, 1968). To prevent disease, sacrifices were made to please the spirits or gods, taboos were obeyed, amulets were worn, and “haunted” places were avoided. Charms, spells, and chants were also used as protection from disease (Duncan, 1988). Again, it is likely that some form of rudimentary education about health was taking place to inform people how to keep from provoking the spirits and, thus, prevent disease.

Early Efforts at Public Health

Evidence of broad-scale public health activity has been found in the earliest of civilizations. In India, sites excavated at Mohenjo-Daro and Harappa dating back 4,000 years indicate that bathrooms and drains were common. The streets were broad, paved, and drained by covered sewers (Rosen, 1958). Archeological evidence also shows that the Minoans (3000–1430 B.C.E.) and Myceneans (1430–1150 B.C.E.) built drainage systems, toilets, and water-flushing systems (Pickett & Hanlon, 1990). The oldest written documents related to health care are the **Smith Papyri**, dating from 1600 B.C.E., which describe various surgical techniques. The earliest written record concerning public health is the **Code of Hammurabi** (see **Box 2.1**), named after the king of Babylon. It contained laws pertaining to health practices and physicians, including the first known fee schedule (Rubinson & Alles, 1984).

Early Cultures

The medical lore of the distant past was handed down from generation to generation. In virtually every culture for which there are documented historical accounts, people turned to some type of a physician or medicine man for health information (education

Box 2.1 The Rights and Duties of the Surgeon of 2080 B.C.E.: from the Code of Hammurabi

“If a physician operate on a man for a severe wound (or make a severe wound upon a man), with a bronze lancet, and save the man’s life; or if he open an abscess (in the eye) of a man, with a bronze lancet, and save the man’s eye, he shall receive ten shekels of silver (as his fee).”

“If he be a freeman,* he shall receive five shekels.”

“If it be a man’s slave, the owner of the slave shall give two shekels of silver to the physician.”

“If a physician operate on a man for a severe wound, with a bronze lancet, and cause the man’s death; or open an abscess (in the eye) of a man with a bronze lancet, and destroy the man’s eye, they shall cut off his hands.”

“If a physician operate on a slave of a freeman for a severe wound, with a bronze lancet, and cause his death, he shall restore a slave of equal value.”

“If he open an abscess (in his eye), with a bronze lancet, and destroy his eye, he shall pay silver to the extent of one half of his price.”

“If a physician set a broken bone for a man or cure his diseased bowels, the patient shall give five shekels of silver to the physician.”

“If he be a freeman, he shall give three shekels.”

“If it be a man’s slave, the owner of the slave shall give two shekels of silver to the physician.”

“If a veterinary physician operates on an ox or ass for a severe wound and save its life, the owner of the ox or ass shall give the physician, as his fee, one sixth of a shekel of silver.”

“If he operate on an ox or an ass for a severe wound, and cause its death, he shall give to the owner of the ox or ass one fourth its value.”

*Freeman indicates a rank intermediate between that of “man” (or gentleman) and that of “slave.”

Harper, R. F. (1904). *The code of Hammurabi*. University of Chicago Press.

about health), treatments, and cures (Green & Simons-Morton, 1990). In Egypt, as in many other cultures, this role was held by the priests. Eventually, the various incantations, spells, exorcisms, prescriptions, and clinical observations were compiled into written format, some of which survive in our museums and libraries (Libby, 1922).

The Egyptians made substantial progress in the area of public health. They possessed a strong sense of personal cleanliness and were considered to be the healthiest people of their time (see **Figure 2.2**). They used numerous pharmaceutical preparations and constructed earth privies for sewage, as well as public drainage pipes (Pickett & Hanlon, 1990). Nevertheless, they relied primarily on priests for their health information and used remedies such as “dung of the gazelle and the crocodile, the fat of a serpent, mammalian entrails and other excreta, tissues and organs” (Libby, 1922, p. 6).

In approximately 1500 B.C.E., the Hebrews extended Egyptian hygienic thought and formulated (in the biblical book of Leviticus) what is probably the world’s first written hygienic code. It dealt with a variety

of personal and community responsibilities, including cleanliness of the body, protection against the spread of contagious diseases, isolation of lepers, disinfection of dwellings after illness, sanitation of campsites, disposal of excreta and refuse, protection of water and food supplies, and specific hygiene rules for menstruating women and women who had recently delivered a child.

The history of health and health care in the Greek culture (1000–400 B.C.E.) is intriguing as well as relevant to modern healthcare philosophy. The Greeks were perhaps the first people to put as much emphasis on disease prevention as they did on the treatment of disease conditions. Balance among the physical, mental, and spiritual aspects of the person was emphasized. Among the early Greeks, religion played an important role in health care. However, the role of the physician began to take on a more defined shape, and a more scientific view of medicine emerged.

In the early stages of Greek culture, as represented in the *Iliad* and the *Odyssey*, the priesthood played a role in the healing arts. In the *Iliad*, **Asclepius** was a Thessalian chief



Figure 2.2 The Egyptians were known for their cleanliness and were considered the healthiest people of the time.

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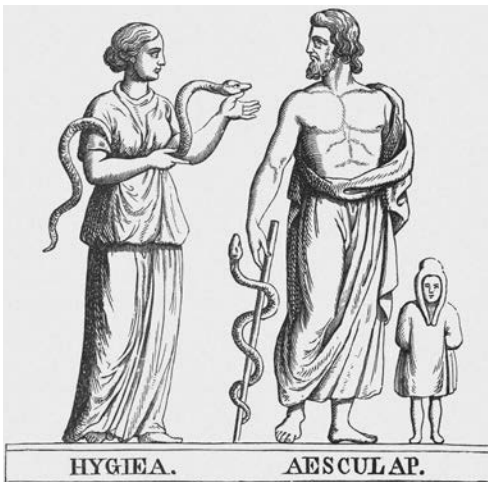


Figure 2.3 Asclepius and Hygeia.

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who had received instruction in the use of drugs. By the beginning of the eighth century B.C.E., tradition had enshrined him as the god of medicine. He had two daughters who also had health-related powers. **Hygeia** was given the power to prevent disease, whereas **Panacea** was given the ability to treat disease. Hygeia was the more prominent figure and was often pictured with her father in sculptures and illustrations of the time (Schouten, 1967) (see **Figure 2.3**). The words *hygiene* and *panacea* can be traced back to these daughters of Asclepius (Libby, 1922).

Eventually, hundreds of elaborate temples were built throughout Greece to worship Asclepius. These temples were typically on beautiful sites overlooking the sea or beside healing fountains. The temple priests practiced their healing arts, which often involved fraud. The temple priests should not be confused with the **Asclepiads**. The Asclepiads were a brotherhood of men present at the temples who initially claimed descent from Asclepius. Although some of the Asclepiads probably helped the priests with their trickery, others broke away from the priests and began to practice medicine based on more rational principles. These ancient temples of Asclepius



Figure 2.4 Illustration of a caduceus, a symbol that shows two snakes braided around a staff. It is representative of the medical profession and has its earliest association with Asclepius, the Greek healer.

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left their symbol as a permanent reminder of the past—the staff and serpent of the physician, known as the **caduceus** (Rubinson & Alles, 1984) (see **Figure 2.4**).

The famous Greek physician **Hippocrates** came from the Asclepian tradition. He lived from about 460 B.C.E. until 377 B.C.E. (See **Figure 2.5**.) Hippocrates developed a theory of disease causation consistent with the philosophy of nature held by leading philosophers of his day. Hippocrates taught that health was the result of balance, and disease was the result of an imbalance. To the Greeks, the ideal person was perfectly balanced in mind, body, and spirit. Thus, study and practice related to philosophy, athletics, and theology were all important to maintain balance. To do this, however, took a tremendous commitment of time and energy. Each day required physical activity, study, and philosophical discussion while maintaining proper nutrition and rest. Few people could afford to lead such a life. Those who did were the

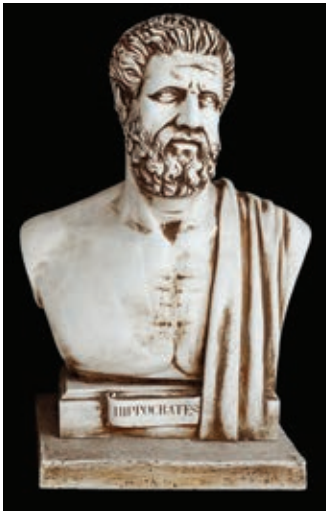


Figure 2.5 Hippocrates, 460–375 B.C.E., “Father of Western Medicine”.

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aristocratic upper class leading a life of leisure supported by a slave economy (Rosen, 1958). The ideal Greek human being that is so often mentioned was, in fact, a small percentage of the Greek population.

Hippocrates holds an important place in the history of medicine. His theory of health and disease was still being taught in medical schools as a valid theory of disease causation as recently as the first quarter of the 20th century. Hippocrates, however, did more than just theorize about disease. He carefully observed and recorded associations between certain diseases and such factors as geography, climate, diet, and living conditions. Duncan (1988) noted, “One of his [Hippocrates’s] most noteworthy contributions is the distinction between ‘endemic’ diseases, which vary in prevalence from place to place, and ‘epidemic’ diseases, which vary in prevalence over time” (p. 12). The traditional Hippocratic Oath is still used today and is the basis for medical ethics. Hippocrates and the Asclepiads moved health care away from religion and priests and attempted to establish a more rational basis to explain health and disease. Hippocrates’s

concept of balance in life is still promoted today as the best means for maintaining health and well-being.

Hippocrates has been credited with being the first epidemiologist and the father of modern medicine (Duncan, 1988). It is not hard to imagine that he was also a health educator. One can easily see Hippocrates educating his friends and patients about diet, exercise, rest, and the importance of balance in preventing disease and promoting health.

The Romans conquered the Mediterranean world, including the Greeks. In doing so, however, the Romans did not destroy the cultures they conquered but learned from them. The Romans accepted many Greek ideas, including those related to health and medicine. As medical practitioners, the Romans copied much of what they had learned from the Greeks. Where the Romans really excelled was in engineering and administration. They developed water transport systems to move large quantities of fresh safe water to population centers and sewage systems to remove waste. These were major public health advancements (Rosen, 1958). (See **Figure 2.6.**)

The Roman Empire (500 B.C.E.–C.E. 500) built an extensive and efficient aqueduct system. Evidence of some 200 Roman aqueducts remains today, from Spain to Syria and from Northern Europe to North Africa (McKenzie & Pinger, 2015). The total capacity of the 13 aqueducts delivering water to the city of Rome has been estimated at 222 million gallons every 24 hours. At the height of the empire, this would have been enough to provide each citizen of Rome with at least 40 gallons of fresh water per day. Additionally, attention was paid to water purity. At specific points along the aqueduct, generally near the middle and end, settling basins were located, in which sediment might be deposited (Rosen, 1958).

The Romans also developed an extensive system of underground sewers. These served to carry off both surface water and sewage. The main sewer in Rome that emptied into the



Figure 2.6 Roman aqueducts.

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Tiber River was 10 feet wide and 12 feet high; it was still part of the Roman sewer system during the 20th century.

The Romans made other health advancements. They observed the effect of occupational hazards on health, and they were the first to build hospitals. By the second century C.E., a public medical service was set up whereby physicians were appointed to various towns and institutions. A system of private medical practice also developed during the Roman era (Rosen, 1958).

The Romans furthered the work of the Greeks in the study of human anatomy and the practice of surgery. Some Roman anatomists even dissected living human beings to further their knowledge of anatomy (Libby, 1922). In quoting the Latin writer Cornelius, Libby noted that these anatomists “procured criminals out of prison, by royal permission, and dissecting them alive, contemplated, while they were still breathing, the parts which nature had before concealed, considering their

position, color, figure, size, order, hardness, softness, smoothness, and asperity” (Libby, 1922, p. 54). Although some opposed this hideous practice, others supported it, holding “it is by no means cruel as most people represent it, by the tortures of a few guilty, to search after remedies for the whole innocent race of mankind in all ages” (Libby, 1922, p. 54).

Middle Ages

The era from the collapse of the Roman Empire to about 1500 C.E. is known as the Middle Ages or Dark Ages. This was a time of political and social unrest, when many health advancements of previous cultures were lost. Rosen (1958) notes that, “the problem that confronted the medieval world was to weld together the culture of the barbarian invaders with the classical heritage of the defunct [Roman] Empire and with the beliefs and teachings of the Christian religion” (p. 52). This proved to be no easy task.

With the Roman Empire no longer able to protect settlements, each city had to defend itself against its enemies. For safety, people lived within city walls along with their domesticated animals. As the population grew, expansion was difficult and overcrowding was common (Rosen, 1958). Lack of fresh water and sewage removal were major problems for many medieval cities; Roman public health advancements were lost.

To make matters worse, there was little emphasis on cleanliness or hygiene. The new religion, Christianity, found its disciples among the lower classes, where personal hygiene was not practiced, and as a consequence, an entirely different attitude toward the human body developed. Excessive care of the body, that is, man's earthly and mutable part, was unimportant in the Christian dualistic concept, which separated body from soul. For some Eastern churchmen and holy men, living in filth was regarded as evidence of sanctity: cleanliness was thought to betoken pride, and filthiness humility. (Goerke & Stebbins, 1968, p. 9)

Fortunately, as Christianity matured so did its concept of the human body. Eventually, Christians came to believe that the body is the soul's earthly dwelling; thus, permitting better care of it.

Early Christians also reinforced the notion that disease was caused by sin or disobeying God. This propelled priests and religious leaders back into the position of preventing and treating disease. The health-related advancements of the Greco-Roman era were abandoned and shunned. Entire libraries were burned, and knowledge about the human body was seen as sinful.

The Middle Ages were characterized by great epidemics. Perhaps the cruelest of these was leprosy, a disease characterized by severe facial and extremity disfigurement. A highly contagious and virulent disease, all Western countries issued edicts against anyone suspected of having leprosy and regulated every aspect of the sufferer's life. In some

communities, lepers were given the last rites of the church, forced to leave the city, made to wear identifying clothing, and required to carry a rod identifying them as lepers. Other lepers were forced to wear a bell around their necks and to ring it as a warning when other people came near. Such isolation usually brought about a relatively quick death resulting from hunger and exposure (Goerke & Stebbins, 1968). Eventually, leprosy hospitals were founded to treat the afflicted. It has been estimated that by 1200 C.E., there were 1,900 leper houses and leprosaria in Europe (Rosen, 1958).

The bubonic plague, known as the Black Death, may have been the most severe epidemic the world has ever known. The death toll was higher and the disruption of society greater than from any war, famine, or natural disaster in history. "At Constantinople, the plague raged with such violence that 5,000, and even 10,000 persons are said to have died in a single day" (Donan, 1898, p. 94). Estimates of casualties vary from 20 to 35 million, with Europe losing one quarter to one third of its entire population. In Avignon, France, 60,000 people died. As a result, the pope was forced to consecrate the Rhone River so that bodies might be thrown into it, because the churchyards were filled (Goerke & Stebbins, 1968).

Imagine what it must have been like to live through the plague. Literally one out of every three or four people you knew contracted the disease and died. The cause of the disease was unknown, creating widespread fear and superstition. Often, religious leaders and doctors were some of the first victims. They were exposed to the disease early in the epidemic through their contact with infected sufferers. This left many communities with no religious or medical leadership.

People reacted to the plague in different ways. Some became extremely pious, turned away from earthly pleasures, and practiced extreme self-denial in hopes of pleasing God. Others took the opposite approach, lost faith

in God, and disregarded legal, moral, and sexual restraints (Goerke & Stebbins, 1968). The Brotherhood of the Flagellants was a group of religious zealots who believed the plague could be avoided by admitting to their sins and then ritualistically beating themselves in atonement. Today, such a group would most likely be labeled a religious cult. Members of this group marched in long, two-column lines from city to city. In each city, they would chant a litany and conduct their ritualistic ceremony. At a signal from the group's master, the Flagellants would strip to the waist and march in a circle until they received another signal from the master. Upon receiving the second signal, they would throw themselves to the ground with their body position indicating the specific sin they had committed. The master would move among the bodies, thrashing those who had committed certain sins or had offended the discipline of the Flagellants in some way. This would be followed by a collective flagellation in which the group members would rhythmically beat their own backs and breasts with a heavy scourge made of three or four leather thongs tipped with metal studs. According to eyewitness accounts, the Flagellants lashed themselves until their bodies became swollen and blue, and blood dripped to the ground. Further complicating the health consequences of such punishment was a rule prohibiting bathing, washing, or changing clothes. When joining the Brotherhood, group members had to pledge to scourge themselves three times daily for 33 days and eight hours, which represented one day for each year of Christ's earthly life (Ziegler, 1969). In other words, to complete the Flagellant pledge, one would have to undergo the ritualistic beating 100 times.

Debate existed during the Middle Ages concerning the cause of the plague. In 1348, Jehan Jacme wrote that the disease was caused by five factors: (1) the wrath of God, (2) the corruption of dead bodies, (3) waters and vapors formed in the interior of the

earth, (4) unnatural hot and humid winds, and (5) the conjunction of stars and planets (Winslow, 1944).

Another story concerning the origins of the disease had Italian merchants trapped in a city on the Black Sea that was under siege by a local Mongol prince. The prince was forced to call off the siege because large numbers of his army were dying of a strange disease. Before leaving, the prince ordered his army to catapult the dead, diseased bodies into the city. Within days, the people inside the city began to die. Afraid, the Italian merchants set sail for Italy, but not before infected rats had boarded the ship. Soon many of the sailors became sick. The ship tried to dock in several cities but was denied permission because of the illness. Finally, permission was granted to dock in Sicily where the rats came on shore and the plague began (De'ath, 1995).

Despite the disagreement that existed on the cause of the disease, contemporaries believed that the disease was contagious. In other words, it was passed from person to person in some unknown way. Although this concept of contagion had been around for many years and was discussed in the Bible, it was not until the Middle Ages and the epidemics of leprosy and bubonic plague that it started to become more universally accepted. The contagion concept opened the door to new interest in science and severely weakened the argument of those promoting the sin-disease theory.

The Middle Ages also saw epidemics of other communicable diseases, including smallpox, diphtheria, measles, influenza, tuberculosis, anthrax, and trachoma. The last major epidemic disease of this period was syphilis, which appeared in 1492. As with other epidemics, syphilis killed thousands of people (McKenzie et al., 2018).

Although there were no professional health education specialists during the Middle Ages, education about health continued to exist. Priests, medical doctors, and community leaders attempted to "educate" anyone

who would listen to their ideas about health and disease prevention. Given the rudimentary level of health knowledge and the lack of consensus on prevention and causation of disease, a professional health education specialist would probably have contributed little to the general population's health in the Middle Ages.

Renaissance

The Renaissance, which means “rebirth,” lasted roughly from 1500 c.e. to 1700 c.e. This time period was characterized by a gradual change in thinking. People began to view the world and humankind in a more naturalistic and holistic fashion. Although progress was slow, science again emerged as a legitimate field of inquiry, and numerous scientific advancements were made. The world did not change overnight from the superstitious and backward beliefs of the Dark Ages to a completely enlightened society in the Renaissance. Disease and plague still ravaged Europe and overall medical care was still rudimentary. Bloodletting was a major form of treatment for everything from the common cold to tuberculosis. Popular remedies included crabs’ eyes, foxes’ lungs, oil of anise, oil of spiders, and oil of earthworms. A major means of diagnosing a patient’s condition consisted of examining the urine for changes in color. The inspection of a patient’s urine by a true physician was known as “water casting.” For many years, this was the principal diagnostic procedure utilized by the medical profession.

Much surgery and dentistry was performed by barbers because they had the best chairs and sharpest instruments available. Some barbers dispensed health information, as can be seen in the following example from a Danish barber-surgeon: “It is very good for persons to drink themselves intoxicated once a month for the excellent reasons that it frees their strength, furthers sound sleep, eases the passing of water, increases perspiration, and

stimulates general well-being” (Durant, 1961, pp. 495–496). Unfortunately, few were probably moderate enough to restrict their binges to once a month.

Rosen (1958) notes that although the Renaissance “is characterized by the rapid growth and spread of science in various fields public health as a practiced activity received very little, if any, direct benefit from these advances” (p. 84). Evidence of the poor public health conditions can be seen in this note describing the average English household floor of the 16th century:

As to floors, they are usually made with clay, covered with rushes that grow in the fens and which are so seldom removed that the lower part remains sometimes for twenty years and has in it a collection of spittle, vomit, urine of dogs and humans, beer, scraps of fish and other filthiness not to be named (Pickett & Hanlon, 1990, p. 25).

Although living conditions among the English royalty were certainly better than for those of the laboring class, health-related problems were still prevalent. Disposal of human waste was a major problem. Those who lived in old castles located their latrines in large projections on the face of walls. The excrement was discharged from these projections into deep-walled pits, moats, or streams near the walls of the castle. Those less fortunate used chamber pots and simply tossed their contents out the nearest window. Even among royalty, basic hygiene left much to be desired. Few monarchs bathed more frequently than once a week. Much of the material used in royal apparel, such as silk, velvet, and ermine, could not be washed; thus, it simply accumulated dirt and perspiration. Cloaking scents were used to try to renew the clothing, but they were not effective (Hansen, 1980).

On the positive side, the Renaissance was a period of exploration and expanded trade.

The search for knowledge, characteristic of the Greek and Roman eras, was revitalized. Superstitions of the Middle Ages were slowly replaced with a more systematic inquiry into cause and effect. In the middle of the 15th century, learning gained momentum as a result of Johannes Gutenberg's invention of the printing press with moveable type. This allowed the great classical works of Hippocrates and Galen to be reproduced and distributed to larger audiences (Gordon, 1959).

There were also scientific advancements during the Renaissance. The human body was again considered appropriate for study, and realistic anatomical drawings were produced. John Hunter, the father of modern surgery, undertook a more orderly exploration of the workings of the human body. Antonie van Leeuwenhoek discovered the microscope and proved there were life forms too small for the human eye to see. These life forms, however, were not yet associated with disease. John Graunt forwarded the fields of statistics and epidemiology. Through studying the *Bills of Mortality*, published weekly in London, Graunt found that more males than females were born, higher death rates during the first years of life than later in life, and higher death rates among urban dwellers than rural dwellers (Goerke & Stebbins, 1968).

In Italy, many cities had instituted health boards to fight the plague. It did not take long, however, for their responsibilities to be expanded. By the middle of the 16th century, numerous matters had fallen under the control and jurisdiction of these health boards. These included “the marketing of meat, fish, shellfish, game, fruit, grain, sausages, oil, wine and water; the sewage system; the activity of the hospitals; beggars and prostitutes; burials, cemeteries, and pesthouses; the professional activity of physicians, surgeons and apothecaries; the preparation and sale of drugs; the activity of hostels and the Jewish community” (Cipolla, 1976, p. 32).

Age of Enlightenment

The 1700s were a period of revolution, industrialization, and growth of cities. Both the French and American Revolutions took place during this century. Plague and other epidemics continued to be a problem. Science had not yet discovered that these diseases were produced by microscopic organisms. The general belief was that disease was formed in filth and that epidemics were caused by some type of poison that developed in the putrefaction process. The vapors, or “miasmas,” rising from this rotting refuse could travel through the air for great distances and were believed to result in disease when inhaled. This concept, known as the **miasmas theory**, remained popular throughout much of the 19th century. As preventive measures, herbs and incense were often used to perfume the air, supposedly filling the nose and crowding out any miasmas (Duncan, 1988). It was still not known that contaminated water could cause disease infection.

Scientific advancements continued throughout the period. Dr. James Lind, a Royal Navy surgeon, discovered that scurvy could be controlled on long sea voyages by having sailors consume lime juice. To this day, British sailors are known as “limeys.” Edward Jenner discovered a vaccine procedure against smallpox. Bernardino Ramazzini wrote on trade and industrial diseases. Theorists of the time conceived of the mind and body not as separate entities, but as dependent on each other. Philosophers of the 18th century, such as Diderot, Locke, Rousseau, and Voltaire, all “promoted the worth of each human life and the importance of individual health for the well-being of society” (Rubinson & Alles, 1984, p. 5).

Although progress was made during this time, health education/promotion in itself still did not emerge as a profession. With the rudimentary state of medical knowledge in the 16th, 17th, and 18th centuries, there would have been little for a health education specialist to do other than promote the misconceptions

and half-truths that predominated during the time period. However, health boards, the forerunner of today's health departments, did develop as scientific and medical knowledge increased. The roots of modern health education/promotion were planted, and the first sprouts would soon emerge.

The 1800s

In the first half of the 1800s, little happened to improve the public's health. In England, the streets of London were filthy with animal and human waste. Overcrowding and industrialization added to the problem. These conditions, under which so many people lived and worked, had dire results. Smallpox, cholera, typhoid, tuberculosis, and many other diseases reached high endemic levels (Pickett & Hanlon, 1990).

In 1842, a momentous event occurred in the history of public health when Edwin Chadwick published his *Report on an Inquiry into the Sanitary Conditions of the Labouring Population of Great Britain*. In the report, he documented the deplorable living conditions of Britain's laboring class, made a strong case that these conditions were the cause of much disease and suffering, and called for government intervention. This report eventually led to the formation of a General Board of Health for England in 1848 (Goerke & Stebbins, 1968).

Extraordinary advancements in biology and bacteriology took place by the middle of the 19th century in England and throughout Europe. In 1849, Dr. John Snow, who laboriously studied epidemiological data related to a cholera epidemic in London, hypothesized that the disease was caused by microorganisms in the drinking water from one particular water pump located on Broad Street (see **Figure 2.7**). He removed the pump's handle to keep people from using the water source, and the epidemic abated. Snow's action was remarkable because it predated the discovery that microorganisms cause disease and was in opposition to the prevailing miasmas theory of the time (Johnson, 2006).



Figure 2.7 By removing the handle of this pump, which is still in place on Broad Street in London, John Snow interrupted a cholera pandemic.

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In 1862, Louis Pasteur of France proposed his germ theory of disease. After this, advancements in bacteriology greatly accelerated. Over the next 20 years, Pasteur discovered how microorganisms reproduce, introduced the first scientific approach to immunization, and developed a technique to pasteurize milk. Robert Koch, a German scientist, developed the criteria and procedures necessary to establish that a particular microbe, and no other, caused a particular disease. Joseph Lister, an English surgeon, developed the antiseptic method of treating wounds by using carbolic acid, and he introduced the principle of asepsis to surgery. These are just a few of the tremendous advancements in bacteriology made during the second

half of the 19th century. As a result, the years from 1875 to 1900 became known as the **bacteriological period of public health** (McKenzie et al., 2018).

Public Health in the United States

1700s

During the 1700s, health conditions in the United States were similar to those in Europe—deplorable. Diseases such as smallpox, cholera, and diphtheria were prevalent. Because of the slave trade, diseases such as yaws, yellow fever, and malaria were common in southern states (Marr, 1982). Large numbers of immigrants were entering the ports, cities were growing, overcrowding was common, and the Industrial Revolution was about to begin.

The primary means of controlling disease were quarantine and regulations on environmental cleanliness. For example, as early as 1647, the Massachusetts Bay Colony enacted regulations to prevent pollution of Boston Harbor. In 1701, Massachusetts passed laws allowing for the isolation of smallpox patients and for ship quarantine, as needed. However, there was no overseeing body or agency to enforce compliance.

In an attempt to address health problems, some cities formed local health boards (Pickett & Hanlon, 1990). Prominent citizens who advised elected officials on health-related matters made up these boards. They had no paid staff, no budget, and no authority to enforce regulations. According to tradition, the first health board was formed in Boston in 1799, with Paul Revere as chairman. This is contested, however, by other cities claiming earlier health boards, including Petersburg, Virginia (1780), Baltimore (1793), Philadelphia (1794), and New York (1796).

Life expectancy is one measure of health status for a given population. It is defined as

“the average number of years a person from a specific cohort is projected to live from a given point in time” (McKenzie & Pinger, p. 608). The first life expectancy tables were developed for the United States in 1789 by Dr. Edward Wigglesworth (Ravenel, 1970).

Table 2.1 shows Wigglesworth’s table. It provides strong evidence of the prevailing health conditions. In 1789, life expectancy at birth was only 28.15 years. By 2020, the projected life expectancy at birth in the United States was 79.5 years (U.S. National Center for Health Statistics, 2009).

1800s

From 1800 to 1850, health status improved little. Conditions of overcrowding, poverty, and filth worsened as the Industrial Revolution encouraged more and more people to move to the cities. Epidemics of smallpox, yellow fever, cholera, typhoid, and typhus were

Table 2.1 Expectation of Life According to Wigglesworth Life Table—1789

Current Age	Expected Remaining Years of Life	Current Age	Expected Remaining Years of Life
At birth	28.15	At Age 50	21.16
At Age 5	40.87	At age 55	18.35
At age 10	39.23	At age 60	15.43
At age 15	36.16	At age 65	12.43
At age 20	34.21	At age 70	10.06
At age 25	32.32	At age 75	7.83
At age 30	30.24	At age 80	5.85
At age 35	28.22	At age 85	4.73
At age 40	26.04	At age 90	3.37
At age 45	23/92	At age 95	1.62

Reproduced from Ravenel, M. P. (1921). *A half century of public health*. American Public Health Association.

common. Tuberculosis and malaria reached exceptionally high levels. For example, in 1850, the Massachusetts tuberculosis death rate was 300 per 100,000 population, and the infant mortality was about 200 per 1,000 live births. Conditions were so bad that life expectancy actually decreased in some cities during this period of time. In Boston, the average age at death dropped from 27.85 years in 1820–1825 to 21.43 in 1840–1845. In New York during the same period, the average age of death decreased from 26.15 to 19.69 (Shattuck, 1850).

Public health reform in the United States was slow to begin. Interestingly, a major report helped jump-start the public health reform movement in the United States, just as Chadwick's landmark 1842 report stimulated public health reform in Britain. Lemuel Shattuck's 1850 *Report of the Sanitary Commission of Massachusetts* contained remarkable insights about the public health issues of Massachusetts, including how to approach and solve these problems. Shattuck was a bookseller and publisher from Boston. He retired early at age 46 and dedicated the remainder of his life to his interest in community affairs (American Public Health Association [APHA], 1959). His report is remarkable because no national or state public health programs existed at the time, and local health agencies that did exist were functioning at a minimal level. Shattuck visualized how to improve the public's health through the initiation of state and local level health departments. "Shattuck made 50 recommendations in his report to improve public health practice." Of those 50 recommendations, 36 are still accepted principles of public health practice today (Goerke & Stebbins, 1968). Among his many recommendations were the keeping of vital statistics, environmental sanitation, control of food and drugs, teaching prevention and sanitary science in medical schools, smoke control in cities, control of alcoholism, the supervision of mental disease, exposure of nostrums, preaching health from pulpits, routine

physical exams, and the establishment of nurse training schools (APHA, 1959; Pickett & Hanlon, 1990).

The publication of Shattuck's report did not mean an end to the public health problems in the United States. In fact, the report went largely unnoticed for 19 years until 1869, when the Commonwealth of Massachusetts established a state board of health made up of physicians and laymen exactly as Shattuck had envisioned. One year later, Virginia and California formed their own state boards of health (Ravenel, 1970). By 1900, 38 states had established state boards of health. Today, every U.S. state has a state board or department of health.

Despite the formation of state boards of health, these state-level agencies could not meet health needs on a more local level. With limited resources, there was simply too much to accomplish. As a result, the first full-time county health departments were formed in Guilford County, North Carolina, and Yakima County, Washington, in 1911. Some sources have cited Jefferson County, Kentucky, as the first county health department, set up in 1908 (Pickett & Hanlon, 1990).

As states initiated boards of health, board members had to interact, communicate, and develop their skills. These needs led to the founding of the American Public Health Association (APHA). (See Chapter 8 for more APHA information.) Following a series of national conventions on quarantine held from 1857 through 1860, "Stephen Smith invited a group of 'refined gentlemen' to discuss informally the possibility of a national sanitary association" (Bernstein, 1972, p. 2). Smith's suggestion of an association for health officials and interested citizens was well received. A decision was made to establish a committee to work on a permanent organization. One year later, in 1873, the first annual meeting was held in Cincinnati, Ohio, and 70 new members were elected. Smith remained active in the association throughout his life. At the age of 99, he walked

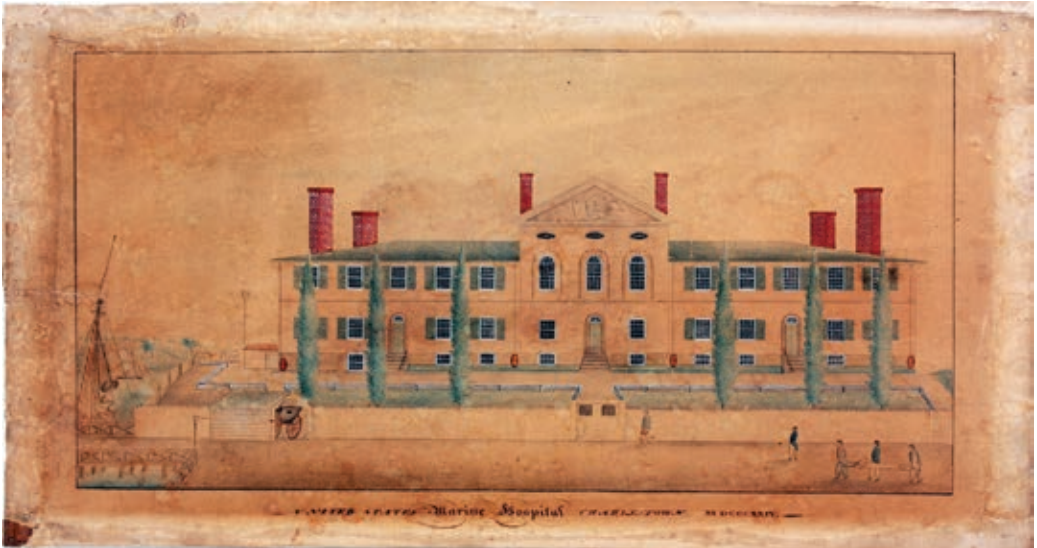


Figure 2.8 Old Marine Hospital in Charleston, South Carolina, 1934.

Courtesy of the U.S. Naval Academy Museum, Annapolis, Maryland.

to the podium unassisted to speak at the 50th anniversary celebration of the APHA.

The federal government started a public health service that dates back to 1798, when Congress passed the Marine Hospital Service Act. Previously, sailors in the merchant marine had nowhere to turn for health care. Because they paid no local or state taxes, ill or injured sailors generally were not welcomed in port cities. The Marine Hospital Service Act required the owners of every ship to pay the tax collector 20 cents per month for every seaman they employed. This money was used to build hospitals and provide medical services in all major seaport cities (see **Figure 2.8**). This act created the first prepaid hospital and medical insurance system. Eventually the plan came under the administrative control of a national public health agency (Pickett & Hanlon, 1990).

Successive legislation throughout the 19th century gradually expanded the scope of the Marine Hospital Service. In 1902, Congress retitled it the Public Health and Marine Hospital Service and gave it a definite

organizational structure under the direction of the surgeon general. In 1912, “Marine Hospital” was dropped from the name, and the service became known as it is today, the U.S. Public Health Service. “The mission of the U.S. Public Health Service Commissioned Corps is to protect, promote, and advance the health and safety of our Nation” (U.S. Public Health Service, 2020). The Commissioned Corps comprises over 6,100 health professionals who proudly wear the uniform of the U.S. Public Health Service (see **Figure 2.9**). These professionals serve in 800 locations within the United States and abroad.

In 1879, Congress created the National Board of Health. The board was composed of seven members appointed by the president, including representatives of the army, navy, Marine Hospital Service, and Justice Department. Its functions were to obtain information on all matters related to public health and provide grants-in-aid to state boards of health. The National Board also provided money to university scientists for health-related research. Unfortunately, the board



Figure 2.9 Uniform of the U.S. Public Health Service.

Courtesy of U.S. Department of Health and Human Services.

was short-lived. In administering quarantine functions, the board incurred opposition from state agencies and private shipping concerns. Others in positions of power were not in favor of the research grant program and felt such expenditures were extravagant. Thus, in 1882, the board's appropriations were transferred to the Marine Hospital Service, which carried on with the quarantine functions but discontinued the grant program (U.S. Department of Health, Education, and Welfare [USDHEW], 1976).

1900 to Present

The period from 1900 to 1920 is known as the **reform phase of public health** (McKenzie, Pinger & Seabert 2018). During this time, urban areas expanded, and many people lived and worked in deplorable conditions. To address these concerns, federal regulations were passed concerning the food

industry, states passed workers' compensation laws, the U.S. Bureau of Mines and the U.S. Department of Labor were created, and the first clinic for occupational diseases was established. By the end of the 1920s, the movement for healthier workplace conditions was well established, and the average life expectancy had risen to 59.7 years.

Also during this period, the first national voluntary health agencies were formed. They were run primarily by volunteers along with a few paid staff. Each of these agencies was designed to address a specific health problem. For example, the National Association for the Study and Prevention of Tuberculosis was established in 1902, and the American Cancer Society was founded in 1913. Today, volunteer agencies continue to be important players in the prevention of disease and the promotion of health (McKenzie, Pinger & Seabert 2018). They often hire health education specialists.

The 1920s were a relatively quiet period in public health. Progress continued, but at a slower pace. However, the Public Health Education Section of the APHA was founded in 1922 (Bernstein, 1972). This is the APHA section to which most health education specialists belong. Its mission is, “To be a strong advocate for health education and health promotion for individuals, groups and communities, and systems and support efforts to achieve health equity in all activities of the Association” (APHA, 2020).

The need for health education/promotion existed in the early 20th century as many questionable and fraudulent health practices were being promoted. Moore’s book about public health in the United States (1923) included two chapters on questionable and unreliable health activities. One of the most interesting examples involved a cure-all product known as Tanlac. The May 11, 1917, edition of the *Holyoke Daily Transcript* contained Fred Wicks’ testimonial in a Tanlac advertisement, as well as his obituary (Moore, 1923, pp. 173–174).

Other examples of questionable health practices also abound. William Harvey Kellogg and his younger brother W. K., founders of the Kellogg cereal company, were best known in the early 1900s for the sanitarium they established and operated in Battle Creek, Michigan. The rich and famous came from all over the world to be treated at the sanitarium. Many of the treatment modalities, however, would be considered questionable and even quackery by today’s standards. For example, they used some 200 different types of hydrotherapy along with therapeutic enemas, electric horses, vibrators, and cold air (Butler, Thornton, & Stoltz, 1994). However, the sanitarium did promote exercise and good nutrition as ways to prevent and treat disease. (See **Figure 2.10**.) The concept of prevention was again gaining prominence.

Tension between preventive medicine and curative medicine began to appear in the United States during the early 20th century.



Figure 2.10 Kellogg Sanitarium in Battle Creek, Michigan.

Reproduced from Butler, M., Thornton, F., & Stoltz, D. (1994). *The Battle Creek idea*. Heritage Publications.

Moore (1923) related a story about a town in which public health work had banished malaria. A physician was asked how his profession had been affected by this public health advancement. He replied off-handedly, “If it hadn’t been for the influenza, I’d have gone broke. That saved us” (p. 373).

In a more rational manner, Newsholme (1936) noted three reasons why treatment formed a larger part of public health efforts than prevention and why it would continue to do so in the future. First, the knowledge to prevent disease and death was only partial. Medical workers simply did not have the knowledge and skills to prevent many disease states. Second, even when knowledge to prevent disease did exist, many people did not know about it, and those who did know found it difficult to make those changes necessary to prevent disease. Third, there were such a large number of sick people needing prompt medical treatment that it was difficult to focus attention on prevention. Many of the same arguments are used today to account for the emphasis on traditional medical interventions instead of prevention.

From 1930 through World War II, the role of the federal government in social programs expanded. Prior to the Great Depression, medical services were self-funded or funded by relatives and friends, as well as by religious organizations and some voluntary agencies. During the Depression; however, private resources could not meet the demands of those requiring assistance. In 1933, President Franklin D. Roosevelt created numerous agencies and programs as part of his New Deal, which improved the plight of the disadvantaged. Much of the money was used for public health efforts, including the control of malaria, the building of hospitals, and the construction of municipal water and sewage systems.

The Social Security Act of 1935 was a real milestone and the beginning of the federal government's involvement in social issues, including health. The act provided support for state health departments and their programs.

Funding was made available to develop sanitary facilities and to improve maternal and child health.

Two major public health agencies were formed at this time. On May 26, 1930, the Ransdell Act converted the Hygienic Laboratory to the National Institute of Health, with a broad mandate to learn the cause, prevention, and cure of disease (USDHEW, 1976). The National Institutes of Health, as it is called today, is now one of the premiere—if not *the* premiere—medical research facilities in the world. In 1946, the Communicable Disease Center was established in Atlanta, Georgia. Now called the Centers for Disease Control and Prevention (CDC), it is one of the world's leading epidemiological centers. (See **Figure 2.11**.) The CDC is also a major training facility for health communications and educational methods (Pickett & Hanlon, 1990). The



Figure 2.11 CDC's "Arlen Specter Headquarters and Emergency Operations Center" located on CDC's Roybal Campus in Atlanta, Georgia.

© Katherine Welles/Shutterstock.

CDC's mission is "to protect America from health, safety and security threats, both foreign and in the U.S." (CDC, n.d.-c)

Following World War II, concern rose over the number of healthcare facilities and the adequacy of the care they provided. In 1946, Congress passed the National Hospital Survey and Construction Act, also known as the Hill-Burton Act, to improve the distribution and enhance the quality of hospitals. From the passage of the Hill-Burton Act through the 1960s, new hospital construction occurred rapidly. Little thought, however, was given to planning. As a result, hospitals were built too close together and provided overlapping and unnecessary services (McKenzie, Pinger & Seabert 2018).

In 1954, Dr. Mayhew Derryberry, the first chief of health education in the federal government, noted, "The health problems of greatest significance today are the chronic diseases. . . . The extent of chronic diseases, various disabling conditions, and the economic burden that they impose have been thoroughly documented" (*Voices From the Past*, 2004, p. 368). Before the 1950s, the major emphasis of public health had been on communicable or contagious diseases. However, through improved public health services, medical care, and immunization programs, many contagious diseases no longer threatened as they once had, and the focus shifted ever so slowly to the prevention of chronic diseases. Derryberry predicted how this change of focus would impact health education: "Health education and health educators will be expected to contribute to the reduction of the negative impact of such major health problems as heart disease, cancer, dental disease, mental illness and other neurological disturbances, obesity, accidents and the adjustments necessary to a productive old age" (*Voices From the Past*, 2004, p. 368). Although the seed may have been planted for health education specialists to play a greater role in the prevention of chronic diseases, it was not until the 1970s that the seed finally sprouted.

In 1965, the federal government again passed major legislation designed to improve the health of the U.S. population. Although major improvements were made in health facilities and the quality of health care, there were still many underserved people. Most of these people were either poor or elderly. In response, Congress passed the Medicare and Medicaid bills as amendments to the Social Security Act of 1935. **Medicare** was created to assist in the payment of medical bills for the elderly, whereas **Medicaid** did the same for the poor. These bills provided medical care for millions of people who could not otherwise have obtained such services.

It was evident by the 1970s that disease prevention held the greatest potential for improving Americans' health and reducing healthcare costs. The first national effort to promote the health of citizens through a more preventive approach took place in Canada. In 1974, the Canadian Ministry of Health and Welfare released a publication titled **A New Perspective on the Health of Canadians** (Lalonde, 1974). This document, often called the *Lalonde Report*, presented epidemiological evidence that supported the importance of lifestyle and environmental factors. It called for numerous national health promotion strategies that encouraged Canadians to be more responsible for their own health. (See Chapter 1 for information on the Health Field Concept associated with this publication.) The Lalonde Report influenced many U.S. health professionals to rethink their assumptions that focused on high-technology, treatment-based medicine. So important was this report that Bates and Winder (1984) likened it to a re-emergence of Hygeia and the beginning of the second public health revolution (p. 24).

Healthy People Initiatives and Public Health Standards

In the United States, the government publication **Healthy People** was the first major recognition of the importance of lifestyle in

promoting health and well-being (U.S. Public Health Service, 1979). This publication supported a shift from the traditional medical model toward lifestyle and environmental strategies that emphasized prevention.

In 1980, ***Promoting Health/Preventing Disease: Objectives for the Nation*** was released. This federal document contained 226 U.S. health objectives for the United States, divided into three areas: preventive services, health protection, and health promotion. These objectives provided the framework for public health efforts during the 1980s. They allowed public health professionals to focus on key areas while providing baseline data for measuring progress (U.S. Department of Health and Human Services [USDHHS], 1980). Although not all of these objectives were met, the planning and evaluation process used to develop them became a valuable way to measure progress in U.S. health and healthcare services. This led to the practice of developing U.S. health objectives each decade from the 1990s through the 2020s.

The Healthy People initiative has evolved into an important strategic planning tool for public health professionals at the federal, state, and local levels. Formal reviews measure the progress of these objectives at mid-course (halfway through the 10-year period) and again at the end of 10 years.

Healthy People 2030, the fifth iteration of the Healthy People public health objectives, was released on August 18, 2020, and includes 355 measurable objectives (CDC, n.d.-a). It will guide U.S. public health practice and health education specialists through the decade of the 2020s. Health education specialists need to be familiar with these objectives and use them in their respective practice settings. The [Healthypeople.gov](https://www.healthypeople.gov) website is user friendly and permits the entire report to be searched and accessed. The vision, mission, foundational principles, and overarching goals of Healthy People 2030 can be seen in **Table 2.2**. (CDC, n.d.-b, d).

For *Healthy People 2030* to be effective, programs must be developed and initiated to meet the established objectives. This means that partner states, counties, communities, organizations, and individuals must get involved. It is important to note that when discussing implementation of the Healthy People 2030 Objectives, the CDC suggests a four-step process that includes the major responsibilities of a health education specialist. The four steps are 1) Identifying the needs and priority populations, 2) set targets, 3) utilize evidence-based resources and tools, and 4) Monitor progress (CDC, n.d.-g). You will learn more about the Responsibilities of a Certified Health Education Specialist (CHES) in Chapter 6 of this text.

To inform and guide public health's working toward the Healthy People 2030 objectives, it is imperative that the "10 Essential Public Health Services" be included in all communities (CDC, n.d.-f) (see **Figure 2.12**). The "10 Essential Public Health Services" was revised in 2020 to include equity at the center of the framework. From a health education perspective, it is important to note that one of the 10 Essential Public Health Services is to "communicate effectively to inform and educate people about health, factors that influence it, and how to improve it." With "communication being one of the eight responsibilities of a health education specialist, this confirms the essential role health education specialists play in public health."

Another important initiative designed, in part, to improve the effectiveness of public health departments working on the Healthy People 2030 objectives is the National Public Health Performance Standards (NPHPS) (CDC, n.d.-e). This is a partnership initiative to develop performance standards; collect, monitor, and analyze data; and ultimately improve public health performance. It is important in that it provides a common, systematic strategy for measuring public health

Table 2.2 *Healthy People 2030 Vision, Mission, Foundational Principles, and Overarching Goals*

Overarching Goals	
Vision	A society in which all people can achieve their full potential for health and well-being across the lifespan.
Mission	To promote, strengthen, and evaluate the nation's efforts to improve the health and well-being of all people.
Foundational Principles	<p>The following foundational principles guide decisions about Healthy People 2030:</p> <ul style="list-style-type: none"> ■ The health and well-being of all people and communities is essential to a thriving, equitable society. ■ Promoting health and well-being and preventing disease are linked efforts that encompass physical, mental, and social health dimensions. ■ Investing to achieve the full potential for health and well-being for all provides valuable benefits to society. ■ Achieving health and well-being requires eliminating health disparities, achieving health equity, and attaining health literacy. ■ Healthy physical, social, and economic environments strengthen the potential to achieve health and well-being. ■ Promoting and achieving health and well-being nationwide is a shared responsibility that is distributed across the national, state, tribal, and community levels, including the public, private, and not-for-profit sectors. ■ Working to attain the full potential for health and well-being of the population is a component of decision making and policy formulation across all sectors.
Overarching Goals	<p>Achieving these broad and ambitious goals requires setting, working toward, and achieving a wide variety of much more specific goals. Healthy People 2030's overarching goals are to:</p> <ul style="list-style-type: none"> ■ Attain healthy, thriving lives and well-being free of preventable disease, disability, injury, and premature death. ■ Eliminate health disparities, achieve health equity, and attain health literacy to improve the health and well-being of all. ■ Create social, physical, and economic environments that promote attaining the full potential for health and well-being for all. ■ Promote healthy development, healthy behaviors, and well-being across all life stages. ■ Engage leadership, key constituents, and the public across multiple sectors to take action and design policies that improve the health and well-being of all.

Reproduced from U.S. Department of Health and Human Services. (n.d.). *Healthy people 2030 framework*. <https://health.gov/healthypeople/about/healthy-people-2030-framework>

performance. Local and state health departments are encouraged to use these performance standard assessments to conduct their own self-assessments. Through this process,

weaknesses can be identified and improvements can be made to enhance the overall performance of public health departments (CDC, n.d.-e).



Figure 2.12 Ten essential public health services.

Data from Centers for Disease Control and Prevention. (n.d.). *10 Essential Public Health Services*. Retrieved July 1, 2021, from <https://www.cdc.gov/publichealthgateway/publichealthservices/essentialhealthservices.html>

Health Education/Promotion: A Recognized Profession

One more important historical event for health education/promotion occurred on October 27, 1997, when the Standard Occupational Classification (SOC) Policy Review Committee approved the creation of a new, distinct classification for the occupation of health educator (Auld, 1997/1998). Health educators had pursued this goal for more than 25 years. Health educators were previously included in the category “Instructional Coordinator,” a broad, primarily education-related category that failed to consider the many varied and unique responsibilities of health education specialists. Approval of health education as a separate occupational classification means that the Department of Labor’s Bureau of Labor Statistics, the Department of Commerce’s Bureau of the Census,

and all other federal agencies that collect occupational data now collect data on health education specialists. Many state and local governments also maintain data on health education/promotion. For the first time, it is possible to determine the number of health education specialists employed and the outlook for future health education/promotion positions. This approval is one more sign that health education/promotion is gaining the respect and recognition it deserves.

In summary, tremendous advancements in public health and health education/promotion took place during the 20th century. It could reasonably be argued that the total number of advancements in public health during the 20th century were equal to or greater than the total number of public health advancements in all prior time. In reflecting on these great successes of public health, the

Department of Health and Human Services identified 10 public health achievements they believed had the greatest impact on major causes of morbidity and mortality of the 20th century. **Box 2.2** lists these 10 achievements. Imagine what life would be like today if none of these achievements had been realized. Think of the role health education/promotion has played in these advancements.

Box 2.3 depicts what are considered to be the greatest public health achievements in the United States from 2001–2010. It is interesting that many of the achievements noted in the first decade of the 21st Century mirror or are closely related to the great achievements of the 20th Century. Further advancements in these overlapping areas means that there has been continued advancement and progress. It is especially interesting that development and distribution of vaccinations continues to be a major public health advancement; especially with the emphasis on vaccine development and distribution during the COVID-19 pandemic of 2020.

Box 2.2 10 Great Public Health Achievements in the United States, 1900–1999

- Vaccination
- Motor vehicle safety
- Safer workplaces
- Control of infectious diseases
- Decline in deaths from coronary (heart) disease and stroke
- Safer and healthier foods
- Healthier mothers and babies
- Family planning
- Fluoridation of drinking water
- Recognition of tobacco use as a health hazard

Centers for Disease Control and Prevention. (1999). Changes in the public health system. *Morbidity and Mortality Weekly Report*, 48(50), 1141–1147. <https://www.cdc.gov/mmwr/preview/mmwrhtml/mm4850a1.htm>

Box 2.3 Greatest Public Health Achievements—United States, 2001–2010

- Vaccine for preventable diseases
- Prevention and control of infectious diseases
- Tobacco control
- Maternal and infant health
- Motor vehicle safety
- Cardiovascular disease prevention
- Occupational safety
- Cancer prevention
- Childhood lead poisoning prevention
- Public health preparedness and response

Centers for Disease Control and Prevention. (2011, May 20). Ten great public health achievements—United States, 2001–2010. *Morbidity and Mortality Weekly Report*, 60(19), 619–623. <https://www.cdc.gov/mmwr/preview/mmwrhtml/mm6019a5.htm>

School Health in the United States

Life in early America was hard, and there was little time for education. The labor of building homes, clearing forests, tilling fields, hunting, and preparing food filled the days. Most people lived under primitive conditions. Settlements were few and far between. Travel and transportation were costly, slow, and limited to foot, horseback, boat, or wagon.

In the mid-1600s, as communities became more established, the call for education was soon heard. Religion had always been an important part of life in America, and it was the religious leaders who led the drive for education. They believed that Satan benefited when people were illiterate, because they could not read the scriptures. In 1647, Massachusetts passed the “Old Deluder” law to prevent Satan from deluding the people by keeping them from reading the Bible. The law specified that a town with 50 families should establish an elementary school, and a town

with 100 households should set up a Latin grammar secondary school (Means, 1962).

The curriculum in these early schools was largely derived from the educational practices in England. Essentially, reading, as the avenue to religious understanding, was the primary subject. Writing, spelling, grammar, and arithmetic supplemented reading. Later, geography and history were added, but the teaching of health was not part of the early education system in the United States.

Because only boys attended these early schools, and working for the family was still a major concern, daily sessions were by necessity of short duration. The length of the school term was usually only a few months. Teachers lacked preparation, with their basic qualifications being only to (1) read, (2) know more of the Bible than the students, (3) work cheap, and (4) keep the students under control. Teachers were totally dependent on the rod for classroom management (Means, 1962). Girls were not sent to school as it was generally felt they could learn everything they needed to know about cleaning, sewing, cooking,

and tending to a home and family from their mothers.

School buildings typically were inadequate (see **Figure 2.13**). They were poorly built, inaccessible, and sometimes temporary structures. Their interiors were inadequately lighted, were furnished with uncomfortable seating, had no sanitary facilities, and were heated with wood-burning stoves. These schools were not even close to meeting modern standards for school construction (Means, 1962).

The schools and their curricula remained much the same until the 1800s. By the mid-1800s, most schools had become tax supported, and attendance was compulsory. Those concerned about public health pointed out the numerous health and safety problems in the schools. These concerns helped bring attention to the conditions of the schools and ultimately paved the way for health instruction in the curriculum (Means, 1962).

Horace Mann, whose writings and speeches promoted the importance of education in general, was perhaps the first



Figure 2.13 An old one-room schoolhouse.

Reproduced from Library of Congress, Prints & Photographs Division, National Child Labor Committee Collection [LC-DIG-ncllc-02986].

spokesperson for teaching health in schools. He was the elected secretary of the Massachusetts State Board of Education in 1837. Beginning in 1837 with the publication of his *First Annual Report* and continuing through the publication of the *Sixth Annual Report* in 1843, Mann called for mandatory hygiene programs that would help students understand their bodies and the relationship between their behaviors and health (Rubinson & Alles, 1984).

Another momentous event in the development of school health occurred in 1850, when Lemuel Shattuck from Massachusetts wrote his *Report on the Sanitary Commission of Massachusetts* (1850). (This is the same report discussed previously in reference to public health.) Although the report has become a classic in the field of public health, it also provided strong support for school health (Means, 1975). In the report, Shattuck (1850) eloquently supports the teaching of physiology, as the term *health education* had yet to be coined:

It has recently been recommended that the science of physiology be taught in the public schools; and the recommendation should be universally approved and carried into effect as soon as persons can be found capable of teaching it. . . . Every child should be taught early in life, that to preserve his own life and his own health and the lives and health of others, is one of the most important and constantly abiding duties. By obeying certain laws or performing certain acts, his life and health may be preserved; by disobedience, or performing certain other acts, they will both be destroyed. By knowing and avoiding the causes of disease, disease itself will be avoided, and he may enjoy health and live; by ignorance of these causes and exposure to them, he may contract disease, ruin

his health, and die. Everything connected with wealth, happiness and long life depend upon health; and even the great duties of morals and religion are performed more acceptably in a healthy than a sickly condition. (pp. 178–179)

Aside from local and state attempts to promote the teaching of health-related curricula in the schools, no concerted national effort existed until that of the Women's Christian Temperance Union. Originally founded in 1874, the union expounded on the evils of alcohol, narcotics, and tobacco through every conceivable means and was one of the most effective lobbying organizations ever (Means, 1962). Between 1880 and 1890, every state in the union passed a law requiring instruction concerning the effects of alcohol and narcotics due to stimulus from the Temperance Movement (Turner, Sellery, & Smith, 1957).

Other national movements soon followed. In 1915, the National Tuberculosis Association introduced the "Modern Health Crusade" as a device for promoting the health of school children. It was based on promotion to "knighthood" for those who followed certain health habits. The Child Health Organization of America encouraged the nation to adopt more functional health education/promotion programs. One of its active leaders, Sally Lucas Jean, was ultimately responsible for changing the name from hygiene education to health education (Means, 1962). With this name change, the focus of health education shifted from that of physiology and hygiene, which was factual and unrelated to everyday living, to an emphasis on healthy living and health behavior.

Despite these advancements, health education from 1900 to 1920 was generally characterized by inconsistency and awkward progress. World War I provided the impetus for widespread acceptance of school health education as a discipline in its own

right (Turner et al., 1957). Out of 2,510,706 men examined as potential military draftees during World War I, 730,756 (29%) were rejected on physical grounds. A large portion of these physical deficiencies could have been prevented if the schools had been doing their part to train children concerning health and fitness (Andress & Bragg, 1922). In the immediate postwar years, 16 states required hygiene instruction in their public schools; 12 of these states made provisions for the preparation of health teachers in the teacher training schools supported by the state (Rogers, 1936).

Significant research and demonstration projects related to school health education were conducted in the 1920s and 1930s. Examples include the Malden, Massachusetts, project, done in cooperation with the Massachusetts Institute of Technology; the Mansfield, Ohio, project supported by the American Red Cross; the Fargo, North Dakota, project sponsored by the Commonwealth Fund; and the Cattaraugus County, New York, project financed by the Milband Memorial Fund. According to Turner and colleagues (1957), “these programs showed that habits could be changed and health improved through health education” (p. 27).

In the 1930s, the drive for health education from the public slowed. Health education continued to address the major health issues of the time but without the enthusiasm brought on by World War I. Notable research studies supplemented authoritative opinion in helping to point out difficulties and offer solutions related to the teaching of health education. Several important conferences were held on health education and youth health at the national level (Means, 1962). The profession was moving forward.

Professional organizations emerged during the 1900s that still exist today. School health education, long associated with physical education, received official recognition in 1937, when the American Physical Education Association became the American Association

for Health and Physical Education, which eventually evolved into the American Association for Health, Physical Education and Recreation and Dance (AAHPERD). In the 1990s, AAHPERD changed from an association to an alliance of national and district associations. The national association that represented health education specialists was the American Association for Health Education (AAHE). For many years, AAHE was a major force in the health education field. At their 2013 National Convention, AAHPERD dropped the association structure and went back to one organization. The name AAHPERD was changed to “SHAPE America” with a mission to, “advance professional practice and promote research related to health and physical education, physical activity, dance and sport.” (SHAPE America, 2020). This means that AAHE is no longer in existence. Although SHAPE America still intends to service those school health educators that also teach physical education, most health education specialists, including those focused on school health, have joined another professional association such as the Society for Public Health Education, which represents all health education specialists in all practice settings, or the American School Health Association.

The American School Health Association evolved from the American Association of School Physicians, which was founded in 1927. Over the next 10 years, this association of school physicians expanded its functions, interests, and scope of activity. As a result, it broadened its membership to include school health personnel other than physicians. In 1938, its name was changed to the American School Health Association to reflect these changes. Today, the mission of the American School Health Association is to “transform all schools into places where every student learns and thrives.” (American School Health Association, 2020)

The American Public Health Association had long been an organization interested

in and supportive of school health. In fact, many of the earliest supporters of health education in the schools had been leaders in public health. Appropriately, the organization established a separate section within its administrative structure to focus on school health interests. In 1942, the School Health Section of the American Public Health Association was formed. (Chapter 8 discusses all of these professional associations in greater detail.)

With the bombing of Pearl Harbor on December 7, 1941, the United States found itself at war. Once again, national focus turned to physical fitness and health. With no major threats of war in the previous 20 years, the physical status of young U.S. men had again degenerated. Of the approximately 2 million men examined for induction into the nation's armed forces, almost 50% were disqualified. Of those disqualified, 90% were found to be physically or mentally unfit (American Youth Commission, 1942). This unfortunate situation helped greatly to stimulate interest in the health of high school students and provided strong motivation for health education/promotion classes.

After World War II, school health education continued to grow as a profession. As Means (1975) observed, "This period from 1940 into the 1970s was one of appraisal, re-evaluation, and consolidation with respect to research accomplished in school health education. During this time leaders in the field attempted to look back, review, and take stock of what was known as a determinant of future action" (p. 107).

The **School Health Education Study** was a major study of significance to school health education. Directed by Dr. Elena M. Sliepcevich (1964), the study included 135 randomly selected school systems involving 1,460 schools and 840,832 students in 38 states. Health behavior inventories were administered to students in grades 6, 9, and 12. The results were appalling. Health misconceptions among students at all levels prevailed.

Questionnaires were distributed to school administrators throughout the country to obtain data on organizational procedures and instructional practices related to school health education. Again, the results indicated major problems in the organization and administration of health programs. Cortese (1993) noted, "...some health topics were omitted while others were repeated grade after grade at the same level of sophistication. No logical rationale placed learning exercises at various grade levels, and a need existed for a challenging and meaningful curriculum" (p. 21).

The second phase of the school Health Education Study established a curriculum writing team to develop a school health education curriculum based on needs identified from the first phase of the study. The team consisted of prominent names in school health education at the time, including Gus T. Dalis, Edward B. Johns, Richard K. Means, Ann E. Nolte, Marion B. Pollock, and Robert D. Russell (Means, 1975). Over the next eight years, the writing team developed a comprehensive curriculum package that schools could implement.

The **School Health Education Evaluation Study** of the Los Angeles area was one more important study. Its purpose was to evaluate the effectiveness of school health work in selected schools and colleges of the area. More specifically, the project aimed at the appraisal of the entire school health program, including administrative organization, school health services, health instruction, and healthful school environment. Furthermore, it examined the students' health knowledge, attitudes, and behavior. The study resulted in 11 conclusions and 17 important recommendations for the field. (Means, 1975).

School health programs have continued to evolve from the mid-1970s to the present. Several important events and trends have impacted school health education and overall school health programs. In 1978, the Office of Comprehensive School Health was established

within the U.S. Department of Education. The primary purpose of the office was policy development for health issues that affected children and youth. Although the office held great promise for school health education efforts, unfortunately, it was never fully funded. A director was named, Peter Cortese, but the office was finally deactivated with the budget cuts during President Reagan's administration (Rubinson & Alles, 1984).

The 1980s saw the emergence of two important concepts: coordinated school health programs and comprehensive school health instruction. Based on the initial ideas of Turner and colleagues (1957), and later refined by Allensworth and Kolbe (1987), a **coordinated school health program** consisting of eight interactive components that work together to enhance the health and well-being of the students, faculty, staff, and community was devised. The eight components consisted of health education, physical education, health services, nutrition services, counseling, psychology and social services, healthy school environment, staff health promotion and family, and community involvement.

The original eight component coordinated school health program model has been expanded and revised to now include 10 components, and is known as the Whole School, Whole Community, Whole Child Model (WSCC) (CDC, n.d.-h). To arrive at the 10 WSCC components, the original Healthy School Environment component was split into the social and emotional climate component and the physical environment component. The original family/community involvement component was split into the community involvement component and family engagement component. The WSCC model recognizes the importance of establishing healthy behaviors in youth. To accomplish this, the model promotes the cooperation and collaboration of government agencies, community organizations, schools, community members, and families (See **Figure 2.14**).

Comprehensive school health education is actually the health curriculum component of the WSCC model. **Box 2.4** identifies factors that need to be in place for the development and delivery of a planned, sequential, effective school health education program. Emphasis should be placed on six specific adolescent risk behaviors that are monitored by the Youth Risk Behavior Surveillance System (YRBSS) (CDC, n.d.-i). These six behaviors contribute to the leading causes of death and disability among youth and adults. These behaviors usually are established during childhood, persist into adulthood, are inter-related, and are preventable. These risk behaviors are as follows:

- Behaviors that contribute to unintentional injuries and violence
- Sexual behaviors that contribute to unintended pregnancy and sexually transmitted diseases, including HIV infection
- Alcohol and other drug use
- Tobacco use
- Unhealthy dietary behaviors
- Inadequate physical activity (CDC, n.d.-i)

In 2006, with support from the American Cancer Society, the Joint Committee on National Health Education Standards was formed. Committee members included representation from the American Association for Health Education, The American Public Health Association, The American School Health Association, and the Society of State Leaders of Health and Physical Education. The standards can be seen in **Box 2.5**. The goal of the National Health Education Standards is improved educational achievement for students and improved health in the United States. The standards promote **health literacy**, the capacity of individuals to access, interpret, and understand basic health information and services, and the skills to use the information and services to promote health. The standards provide a foundation for curriculum development, instruction, and assessment of student performance. A rationale and numerous



Figure 2.14 CDC diagram of Whole School, Whole Community, Whole Child (WSCC).

Reproduced from Centers for Disease Control and Prevention. (n.d.). *Whole school, whole community, whole child (WSCC)*. <https://www.cdc.gov/healthyschools/wscw/index.htm>

performance indicators, broken down by grade-level groupings, accompany each of the eight standards. The National Health Education Standards also provide an important guide for colleges and universities to enhance pre-professional preparation as well as the continuing education of health education/promotion teachers (CDC, n.d.-d).

The National Board for Professional Teaching Standards, founded in 1987, developed national standards for school health education teachers. These standards go beyond the requirements for state teacher licensure. Since the fall of 2008, individuals with three years of full-time health education/promotion teaching experience and a valid state teacher's license for those three years may voluntarily

complete a rigorous evaluation process to become a National Board Certified Health Education Teacher. This National Board Certification places school health education on an equal level with other teaching fields and allows highly qualified and dedicated health education teachers to be recognized for their work. Some states or districts may provide salary bonuses for these highly qualified teachers who obtain National Board Certification (National Board for Professional Teaching Standards, 2020). It is expected that many exceptional and highly dedicated health education/promotion teachers will seek National Board Certification.

Since 1987, the concept of a coordinated school health program has dominated the

Box 2.4 Characteristics of an Effective Health Education Curriculum

1. Focuses on clear health goals and related behavioral outcomes.
2. Is research based and theory-driven.
3. Addresses individual values, attitudes, and beliefs.
4. Addresses individual and group norms that support health-enhancing behaviors.
5. Focuses on reinforcing protective factors and increasing perceptions of personal risk and harmfulness of engaging in specific unhealthy practices and behaviors.
6. Addresses social pressures and influences.
7. Builds personal competence, social competence, and self-efficacy by addressing skills.
8. Provides functional health knowledge that is basic, accurate, and directly contributes to health-promoting decisions and behaviors.
9. Uses strategies designed to personalize information and engage students.
10. Provides age-appropriate and developmentally appropriate information, learning strategies, teaching methods, and materials.
11. Incorporates learning strategies, teaching methods and materials that are culturally inclusive.
12. Provides time for instruction and learning.
13. Provides opportunities to reinforce skills and positive health behaviors.
14. Provides opportunities to make positive connections with influential others.
15. Includes teacher information and plans for professional development and training that enhance effectiveness of instruction and student learning.

Centers for Disease Control and Prevention. (n.d.). *Characteristics of an effective health education curriculum*. <https://www.cdc.gov/healthyschools/sher/characteristics/>

school health arena. At first glance, it would seem that schools would be excited to initiate comprehensive school health programs. How could they not embrace a concept that

would bring together multiple components of the school in an integrated attempt to improve the health of faculty, staff, students, and the community? A healthy child taught

Box 2.5 National Health Education Standards

- Health Education Standard 1—Students will understand concepts related to health promotion and disease prevention to enhance health.
- Health Education Standard 2—Students will analyze the influence of family, peers, culture, media, technology, and other factors on health behaviors.
- Health Education Standard 3—Students will demonstrate the ability to access valid information and products and services to enhance health.
- Health Education Standard 4—Students will demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks.
- Health Education Standard 5—Students will demonstrate the ability to use decision-making skills to enhance health.
- Health Education Standard 6—Students will demonstrate the ability to use goal-setting skills to enhance health.
- Health Education Standard 7—Students will demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks.
- Health Education Standard 8—Students will demonstrate the ability to advocate for personal, family, and community health.

Centers for Disease Control and Prevention. (n.d.). *National health education standards*. <https://www.cdc.gov/healthyschools/sher/standards/index.htm>

by a healthy teacher in a health-conscious community should forward the school's overall mission to provide each child with the best education possible. Unfortunately, the full potential of coordinated school health programs has never been realized in most school districts. Factors may include the low priority placed on health by many school administrators; a lack of leadership to promote, coordinate, and oversee school health programs; and an overemphasis on competency testing. Another dynamic could be the adverse reactions from conservative groups that perceive coordinated school health as a means of incorporating sex education into the curriculum. New optimism has emerged with release of the Whole School, Whole Community, Whole Child movement (CDC, n.d.-h). Time will tell if this expanded and more comprehensive model will gain further traction than the coordinated school health program model of the past.

Another positive support for the future of school health is the bipartisan passage of the 2015 *Every Child Achieves Act*, which recognizes both health education and physical education as “core subjects” in schools (US Department of Education, 2015). Health education specialists had been calling for this recognition for many years (Gambescia, 2006; SOPHE, 2011). Previously both health education and physical education were not considered “core subjects” by federal mandates, which allowed schools to minimize their importance while placing more focus on those subjects such as math, science, and English that were considered core subjects. The passage of this act reflects a growing awareness of the importance of health education to the academic success and overall well-being of students. It will be interesting to watch how passage of this act will actually influence school health education in the future.

Despite the apparent lack of success with coordinated school health programs, schools still hold tremendous promise for health education/promotion efforts. With nearly all

young people under 19 years of age attending schools, health education specialists must remain diligent in their effort to bring effective health promotion and education programs to this population. Every health education specialist should be advocating for the Whole School, Whole Community, Whole Child movement with national and state education agencies, federal and state government representatives, and local school boards.

Patient Protection and Affordable Care Act

On March 23, 2010, amid both fanfare and criticism, President Barack Obama signed into law the **Patient Protection and Affordable Care Act** (referred to as the Affordable Care Act or ACA—Also nicknamed Obamacare). Through a combination of cost controls, subsidies, and mandates, it expanded healthcare coverage to 20 million uninsured Americans (Goodnough et al., 2020). Another important feature was the act's focus on prevention and prevention services (Koh & Sebelius, 2010). The bill provided better access to clinical prevention services by removing cost barriers. Furthermore, the bill encouraged, promoted and provided funding for worksite wellness programs, evidence-based community prevention and wellness programs, and school-based health centers. This bill should have created new and expanded opportunities for health education specialists to promote health. More importantly, it was good for the health of Americans. As Koh and Sebelius (2010) stated: “In short, to prevent disease and promote health and wellness, the Act breaks new ground Moving prevention toward the mainstream of health may well be one of the most lasting legacies of this landmark legislation” (p. 5).

As of 2020, 20 million Americans had gained health insurance coverage through the ACA (Rapfogel, Gee, & Calsyn, 2020). It was

estimated that by 2023, the number of uninsured in the United States would be half the size as in 2012. The ACA, however, was met with much criticism and has faced several legal challenges that reduced its effectiveness. After the 2016 Presidential elections, even more legal challenges were initiated. It is important to note, however, that as of November 2020, the ACA has neither been repealed nor replaced. Perhaps the most significant outcome of the lawsuits is that the ACA's individual mandate tax/penalty was eliminated at the end of 2018. While this had a significant impact on funding for the ACA, it did not eliminate any other features. In December, 2019, a Texas Appellate court ruled that the individual mandate was no longer constitutional since the tax penalty was eliminated. Courts are now considering whether the remainder of the ACA should also be struck down as those opposing the ACA maintain that the mandate is not severable from the remainder of the ACA (Musumeci, 2020). In November, 2020, the Supreme Court heard an appeal of the Texas case with President Trump's Justice Department testifying in favor of the Texas position. In a rare move, the Biden Administration's Justice Department sent a letter to the Supreme Court Justices in February of 2021 stating that they were reversing the position of the former Justice Department and they no longer believed the

ACA to be unconstitutional (Liptak, 2021). No decision had been rendered by the Supreme Court as of April of 2021.

COVID-19 Pandemic

COVID-19 was identified in Wuhan, China, in December of 2019. Since then it has spread to become a worldwide pandemic (CDC, 2020). As of April 1, 2021, there were approximately 130 million cases and nearly 3 million deaths worldwide. In the United States, there were approximately 30.5 million cases with over 552 thousand deaths (Johns Hopkins University, 2021). As a result of the pandemic, public health has become more visible. Public health officials are in the news daily. Health education specialists working in public health settings have important roles to play in addressing the COVID-19 pandemic. Public health education professionals are needed to inform the public about the disease and how it may be prevented and controlled (Brisolara & Smigh, 2020). Behavior change programs and campaigns are needed to encourage mask wearing, handwashing, and social distancing. Further public health professionals are needed to serve as contact tracers and to accurately, concisely and thoroughly translate complex epidemiological data to the general public.

Summary

The history of health and health education/promotion is important to the professional development of health education specialists. By understanding the past, you can appreciate the present and become a leader in this emerging profession.

Today's concept of health education/promotion is relatively new, dating back only to the middle to late 1800s. Since ancient times; however, humans have been searching for ways to keep themselves healthy and

free of disease. Without knowledge of disease causation or medical treatment, it was only natural to rely on superstition and spiritualism for answers. The concept of prevention was intriguing, but the knowledge and skills to prevent disease were unknown.

Progress in preventing and treating disease is evident in the early civilizations of Egypt, Greece, and Rome. These cultures recognized a need for humans to maintain sound minds and bodies. Systems of rudimentary

pharmacology, better waste disposal, and safer drinking water were among some of the most noteworthy improvements.

During the Middle Ages, much of what had been previously learned was lost. Society took a giant step backward. Science and knowledge were shunned, while religion gained new favor as the preferred means of preventing and treating disease. Great epidemics struck the European continent, and millions of people lost their lives.

The Renaissance witnessed a rebirth of interest in knowledge. Science again flourished, and healthcare advancements were made. Understanding of disease, however, was still rudimentary, and the effects of treatments were often worse than the diseases. Sanitary conditions were deplorable and would remain so through the 1800s. The emergence of health education/promotion as a profession was still more than a century away.

The Age of Enlightenment saw tremendous growth in cities as the Industrial Revolution got underway in both England and in the United States. Unfortunately, this population growth compounded sanitation problems related to overcrowding. Epidemics were still prevalent. In addition, employment conditions of the working class were frequently unsafe and unhealthy.

By the mid-1850s, conditions were ripe for the birth of public health in Great Britain and the United States. The contagion theory of disease emerged, and early reformers called for the government to take control of environmental conditions that led to disease. Health departments at city, state, and county levels were established and began to monitor and regulate food safety, water quality, and waste disposal. Professional organizations for health personnel were created, and voluntary agencies were formed. Major pieces of legislation were passed as the government sought to improve working conditions and took greater responsibility for the poor and infirm. During the mid-1900s, emphasis was placed on building new medical facilities

and enhancing the technology required to treat disease.

By the 1970s, the cost of medical treatment had escalated, and concern for prevention was enhanced. This set the stage for the development of national health objectives for the decades of the 1980s, 1990s, and 2000s. *Healthy People 2030* is now in place and identifies the objectives for the current decade. Health education/promotion has made and continues to make great strides as a profession.

In the mid-1800s, as public health was starting to make important strides, school health education was also budding. In addition to reading, writing, and arithmetic, early pioneers saw the need to educate students about health-related matters. In the early 1900s, groups such as the National Tuberculosis Association, the American Cancer Society, and the Women's Christian Temperance Union strongly supported educating school children about health. Both World War I and World War II provided important impetus for health-related instruction and physical training in the schools.

During the 1960s and 1970s, several important studies supported the need for school health education and documented its effectiveness. Coordinated school health programs, created in the 1980s and 1990s, have evolved into the expanded whole school, whole community, whole child concept. School Health Program Guidelines, national health education standards, and identifying the six leading causes of death and disability helped promote health education/promotion.

Although health and school health education have made great strides since the first humans contemplated how to treat and prevent disease, there is still a long way to go. Both in the United States and worldwide, there are many people who do not have access to medical care or the important information and skills of professionally trained health education specialists. Heart disease, cancers, diabetes, obesity, and HIV are prevalent in both developed and developing countries,

and traditional infectious diseases, parasitic infections, poor sanitation, unsafe water, and malnutrition continue to affect people in low- and middle-income countries. Further with the COVID-19 Pandemic of 2020, additional stresses and strains have been placed on the medical and public health systems in the United States and abroad. The need for accurate, honest, transparent information in public health has never been greater. Health education specialists are uniquely trained to assist in addressing issues surrounding the prevention and control of COVID-19.

As in the past, health education professionals of today must envision what *can* be

and strive to make that vision a reality. Turner et al. (1957) noted the following:

As society looks ahead, it can conceive the hope that someday almost every human being will be well, intelligent, physically vigorous, mentally alert, emotionally stable, socially reasonable and ethically sound. At least, society must concern itself with progress toward that goal. (p. 18)

Health education specialists must be important players in this process. Health education specialists must continue their important work through community, worksite, and school-based programs.

Review Questions

1. Describe the earliest efforts at health care and informal health education/promotion.
2. Compare and contrast the great societies of ancient Egypt, Greece, and Rome. How are these cultures similar in relation to health? How are they different?
3. What were the major epidemics of the Middle Ages? Why were they so feared? What factors contributed to their spread? What were some strategies people used to prevent these diseases?
4. Discuss the Renaissance and why it is important to the history of health and health care.
5. Who wrote the *Report of the Sanitary Commission of Massachusetts* (1850)? Explain how this report was important to the history of both school health and public health.
6. Identify at least five major groups or events that forwarded school health programs.
7. What Canadian publication and its U.S. counterpart helped focus attention on the importance of disease prevention and health promotion?
8. What are *national health objectives*? Where can they be found? Why are they so important?
9. Describe the initiatives that have shaped school health education programs over the past 10 years.
10. Explain how the Affordable Health Care Act may serve to improve the public's health and advance the health education/promotion profession in the United States.
11. Discuss how the COVID-19 pandemic has impacted health, health care, and health education practice.

Case Study

Rory (she/her/hers) is a health education specialist employed by the local health department. In this role, she meets with the

news media on a regular basis as a means to educate the public about important health issues. The local TV station wants to

interview her about COVID-19, how it has impacted the health department, and what the average person can do to keep from contracting the disease. Rory wants to develop

an outline of important points she would like to make. Your task, as Rory's student intern, is to develop the first draft of these important talking points.

Critical Thinking Questions

1. If a health educator is simply considered someone who educates others about health, who would be considered humanity's first health educators? Defend your answer.
2. If a health education specialist trained in the year 2013 could time-travel back to the Middle Ages, what impact could that person have on the health problems of that era? What positive factors would work in the health education specialist's favor? What negative factors would work against the health education specialist?
3. When the first schools were being established in Massachusetts, do you believe health education/promotion would have been accepted as an academic subject? Why or why not? Do you believe health education/promotion is accepted as an academic subject at the present time? Why or why not?
4. Go online and find a copy of the new *Healthy People 2030* objectives. Read the introduction and overview. Find the objectives for one of the topic areas and review them. Next, select one objective in that topic area that you feel strongly about, and explain why you feel it will or will not be met by the year 2030. What role might a health education specialist have in meeting the objective you selected?

Activities

1. Develop a timeline using 100-year increments from the early Egyptians to the current year. Mark all of the important health-related events as they occurred along the timeline. Next, continue your timeline 100 years into the future. Predict and mark important health-related events. Explain why you believe these predictions will come true.
2. Imagine what it would have been like to live through an outbreak of the Black Death in the Middle Ages. Write a five-day personal diary, with daily entries depicting what you might have seen or heard and how you might have felt. How would the experience of living through the Black Plague be similar and different from living through the COVID-19 pandemic?
3. Interview several individuals who are at least 80 years old concerning the health care they received as young children. Ask them to describe any health education/promotion they can remember. When was it? Where did it occur? Who provided the education? Was it effective?
4. Contact your high school health teacher. Ask if they are aware of the National Standards for Health Education and to what extent the curriculum in the school district has been based on these standards. Ask the health teacher if they are aware of the Whole School, Whole Community, Whole Child movement. If so, what has been done to implement this model at the local level? Who coordinates the effort? What programs or initiatives are a result of the effort? If nothing has been done, ask why? Try to determine the barriers to initiating the Whole School, Whole Community, Whole Child program in the district.

Weblinks

1. **<http://www.cdc.gov/museum/timeline/index.html>**
Centers for Disease Control and Prevention
This CDC website provides a “timeline” to learn about important events in the history of the CDC from its founding in 1946 to the present. Take note of the many important contributions to public health by this illustrious organization. Give special attention to the 2020s and note the CDC’s role in addressing the COVID-19 pandemic.
2. **<https://history.nih.gov/exhibits/history/index.html>**
National Institutes of Health, Office of History
This National Institutes of Health (NIH) website provides a brief history of this organization, highlighting some of its more important accomplishments.
3. **<https://www.nytimes.com/2020/03/23/health/obamacare-aca-coverage-cost-history.html>**
This New York Times article provides an excellent overview of the Affordable Care Act and what has happened since it was signed into law. It addresses both the positives and negatives of the act and discusses some of the legal challenges it has faced.
4. **<https://health.gov/healthypeople>**
Healthy People 2030
5. **<http://www.cdc.gov/healthyschools/wsc/index.htm>**
Education Development Center, Inc.
This website provides a detailed description of the Whole School, Whole Community, Whole Child initiative including a description of various components and how they can be integrated into the school program. Additional information on health & academics, data & statistics, tools, and resources are available at this site. There is even a Virtual Healthy School tour that you can take. This information is important for health education specialists who want to work in schools and make a difference in the lives of their students.
6. **<https://www.youtube.com/watch?v=AweoZYsiCu4>**
A full-length movie about Father Damien and the Kalaupapa, Molokai, Leper Colony, the last leper colony still functioning in the United States.
7. **<https://vimeo.com/32226544>**
Watch this video on the history of public health in the United States.

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