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## CHAPTER 2

# The Professionals

### KEY TERMS

acute care hospital  
American Speech-Language-Hearing Association (ASHA)  
clinical fellowship year (CFY)  
convalescent hospital  
diagnosis  
evaluation (assessment)

evidence-based practice (EBP)  
inpatient  
National Student Speech-Language-Hearing Association (NSSLHA)  
outpatient  
scope of practice  
signs

speech-language pathology assistant (SLPA)  
subacute hospital  
swallowing disorders (dysphagia)  
symptoms  
telecommunication devices for the deaf (TDD)

### LEARNING OBJECTIVES

After studying this chapter, you will be able to:

- List the people whom speech-language pathologists and audiologists help, beyond the clients and patients directly receiving therapy.
- Explain the importance of the American Speech-Language-Hearing Association to the professions of speech-language pathology and audiology.
- List the people who may be involved in the team approach in a school setting and a hospital setting.
- Explain the basics of the scope of practice of speech-language pathologists and audiologists.
- List the variety of work settings in which speech-language pathologists and audiologists practice.

### CHAPTER OUTLINE

Introduction  
Beginning Your Study of Speech-Language Pathology and Audiology  
A Brief History of the Professions  
Professional Organizations

- State Organizations
- International Organizations

- Audiology Organizations
- Student Organizations

Professional Ethics  
The Team Approach  
Communication Disorders  
Professionals

- Speech-Language Pathologists

- Scope of Practice
  - Evaluation of Communication and Swallowing Disorders
  - Diagnosis of Communication and Swallowing Disorders

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- Treatment of Communication and Swallowing Disorders
- Work Settings
- Employment Outlook
- Audiologists
  - Scope of Practice
- Work Settings
- Employment Outlook
- Speech, Language, and Hearing Scientists
- Speech-Language Pathology Assistants
- Audiology Assistants
- Chapter Review
  - Chapter Summary
  - Study Questions
    - Knowledge and Comprehension
    - Application
    - Analysis and Synthesis
  - References

## ► Introduction

Speech-language pathology and audiology are wonderful professions filled with caring and amiable professionals who serve interesting people with challenging disabilities. You will likely find these professions to be increasingly fascinating as you study them. In these fields, it eventually becomes nearly impossible to separate the individual from the profession: The knowledge and skills you learn as a speech-language pathologist or audiologist become an important part of who you are as a person and how you interact and communicate with others.

## ► Beginning Your Study of Speech-Language Pathology and Audiology

This text is designed to answer your questions about speech-language pathology and audiology. As you journey through its chapters, you will likely recognize that the scope of these professions is broader than you initially imagined. Speech-language pathologists and audiologists learn and are concerned about people from the moment of conception to their last breath of life. At every age, infants, children, adolescents, young adults, middle-aged adults, and elderly adults may experience unique challenges that affect their speech, language, cognitive, hearing, and swallowing functions. You will learn about many of these challenges through this course and this text. If you decide to major in communication disorders, you will learn about each of the areas introduced in this text in more depth. Conversely, if you choose to take only this course, you will still find this information to be invaluable throughout your adult life.

Some clinicians believe that speech-language pathology and audiology are the best majors for preparing students for adult life and parenthood. During their education and training, students learn about the following subjects:

- Normal and abnormal development of infants and children
- How to work with children both on a one-on-one basis and in small groups of two or three
- How to talk with children about what is bothering them as well as how to talk with parents regarding their concerns about their children
- How to motivate children to work hard to improve their communication and academic skills
- How to work with children who are fearful of failure and who need special care to learn to trust you and themselves
- How to work with adults and elderly people with a variety of neurological problems

- How to handle the sensitive and sometimes emotional issues that accompany impairment or loss of communication abilities
- The problems faced by hearing-impaired individuals at all ages, and how these problems affect not only the child with a hearing loss but also the parents and family of the child
- How to be a patient, active listener—a trained listener—which is perhaps the most important interpersonal skill you can develop

Communication disorders can affect people throughout the life span. For example, children may be born with hereditary disorders and syndromes, cleft lips and palates, hearing impairments, auditory processing disorders, and cerebral palsy. Adults with acquired communication disorders caused by stroke or traumatic brain injury may never be able to communicate easily and effectively again, which can prevent them from returning to work or force them to work at a lower-level (and lower-paying) job.

The person with a communication disorder is, in a way, the tip of an iceberg. A child or adult with a communication disorder affects the family around that individual, as well as countless other people with whom the child or adult tries to communicate (FIGURE 2-1). Therefore, when we help individuals improve their communication abilities, we are also helping many other people, both directly and indirectly—most of whom we never meet.

### INSIGHT QUESTION

Have you ever had a “problem” by which other people referred to you (e.g., “Big nose!” “Skinny!” “Fatty!”)? How did you feel about being referred to primarily as a problem and secondarily as a person?

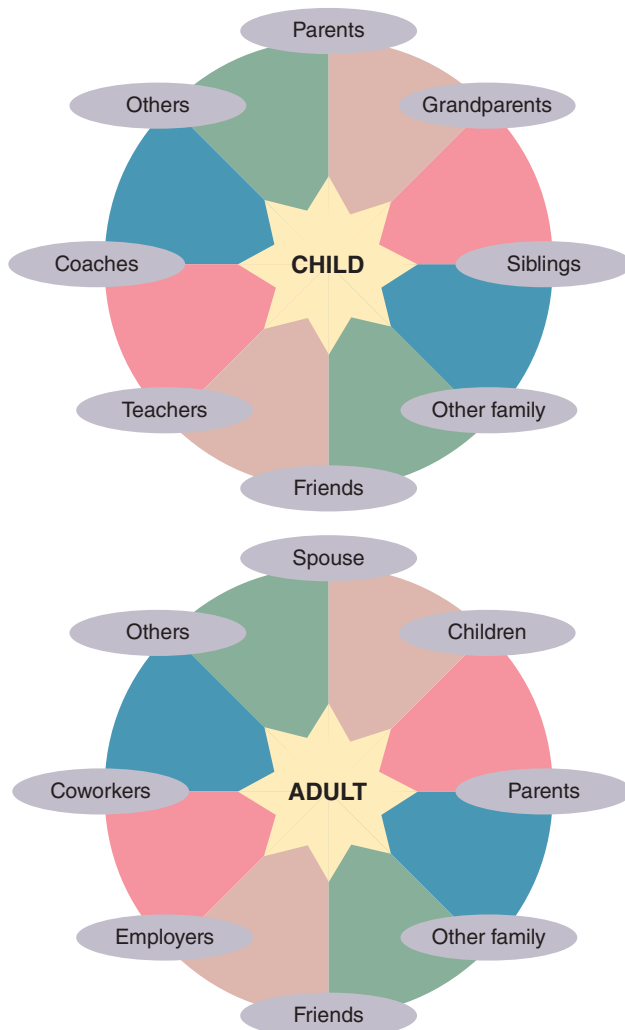


FIGURE 2-1 Who is really helped?

## PERSON-FIRST LANGUAGE

Students and professionals in speech-language pathology and audiology must keep in mind that the problems individuals experience do not define who they are. People are not their problems; problems are something people experience. Therefore, as clinicians and researchers, we follow the “person-first” convention as closely as possible; in other words, we refer to “a boy with an articulation disorder,” “a girl with a hearing impairment,” “a client/patient with a voice disorder,” and so on. Professionally, we avoid phrases such as “He’s an articulation client,” “She’s hearing impaired,” “She’s a voice case,” and so on, because such wording implies that the person’s problem is his or her identity. It is easy to slip into the habit of referring to the problem that the person has rather than to the person who has a problem. We need to learn early and maintain our vigilance to always use person-first language.

### ► A Brief History of the Professions

The professions of speech-language pathology and audiology are relatively new compared to medicine and education. These professions have common origins: They can be traced back to Alexander Graham Bell, whose father and grandfather had been *elocutionists* (individuals who studied formal speaking in pronunciation, grammar, style, and tone) in Edinburgh, Scotland, in the 1860s. A. G. Bell and his father were interested in people who were deaf or hard of hearing (A. G. Bell’s mother and wife were both deaf) and developed and applied a formal system of speech rehabilitation for the deaf. In doing so, A. G. Bell recognized the need for the professions of speech-language pathology and audiology.

In the early 1900s, groups with special interests in *speech correction* in the United States were formed within the National Association of Teachers of Speech (NATS), a professional society for individuals with interests in rhetoric, theater, and public speaking. In 1925, the American Academy of Speech Correction (AASC) was unofficially chartered by a group within NATS. The AASC members included physicians, psychologists, professors of English and speech, phonetician, and *speech correctionists*. The AASC eventually evolved to become the American Speech and Hearing Association. In the 1970s, when language disorders became an essential area of the profession, the organization changed its name to the **American Speech-Language-Hearing Association (ASHA)** but retained the abbreviation ASHA.

Moeller (1975), in her book *Speech Pathology and Audiology: Iowa Origins of a Discipline*, discussed the roots of our professions in psychology and psychiatry. In 1924, Lee Edward Travis, a doctoral student at the University of Iowa with training in psychology and medicine became “the first individual in the world to be trained by clearly conscious design at the doctoral level for a definite and specific professional objective of working experimentally and clinically with speech and hearing disorders” (p. 14).

Rehabilitation is a relatively new concept. Even after World War I, when thousands of injured soldiers were released from hospitals, little rehabilitation was provided. Most certainly, there was no speech therapy or hearing aids for the hearing losses experienced by many of these soldiers owing to acoustic trauma from explosions. If soldiers were medically able to be discharged, they were sent home; how they functioned when they arrived there was not the concern of the medical personnel. After World War II, however, rehabilitation of injured individuals

**American Speech-Language-Hearing Association (ASHA):** The professional organization that represents speech-language pathologists and audiologists and sets standards for their education, training, and certification. The organization was formerly called the American Speech and Hearing Association, and retained the ASHA abbreviation.

(including those with head injuries) became an important focus of their overall treatment.

In the United States, special education and special services for children struggling educationally were not federally mandated and widespread until the 1960s. During that decade and the following decades, important federal legislation was enacted to provide the necessary services to school-age and even preschool children:

- 1965: The *Elementary and Secondary Education Act (Public Law 89-10)* was enacted. This law required states to provide funds so that students with special needs, including the gifted, would be evaluated and appropriately educated.
- 1975: The *Education of All Handicapped Children Act (Public Law 94-142)* mandated that all school-age children with disabilities must be provided a free and appropriate education in the least restrictive environment. This included providing all related services, such as speech-language therapy, physical therapy, and occupational therapy, for children to maximally benefit from their education.
- 1986: The *Education of the Handicapped Amendments (Public Law 99-457)* provided federal funds to states to develop programs for children with disabilities from birth through 2 years of age, and the provisions of Public Law 94-142 were extended to children with disabilities between 3 and 5 years of age.
- 1990: The *Individuals with Disabilities Act (IDEA)* came into being. In addition, the *Americans with Disabilities Act (ADA) (Public Law 101-336)* mandated improved access for individuals with handicaps to buildings and facilities and provided for effective communication for people with disabilities, including the use of interpreters, sign language, and **telecommunication devices for the deaf (TDD)**.

The professions of speech-language pathology and audiology have grown as the services they provide have been increasingly valued and funded. From the early years of emphasis on stuttering, articulation, and hearing disorders, these professions expanded until they touched every communication problem known to science. With the addition of **swallowing disorders (dysphagia)** to their scope of practice, speech-language pathologists can work with disorders of anatomy and physiology that involve the oral, pharyngeal (*pharynx*), laryngeal (*larynx*), and respiratory systems, regardless of a person's communication abilities.

## ► Professional Organizations

The American Speech-Language-Hearing Association is the primary scholarly and professional organization for individuals in the fields of communication sciences and disorders in the United States. ASHA is committed to ensuring that all people with speech, language, and hearing disorders receive services to help them communicate effectively. ASHA provides professional support, public awareness, opportunities for professional growth, and advocacy for the professions and the individuals whom they serve.

ASHA considers communication sciences and disorders to be a single discipline with two separate professions: speech-language pathology and audiology. ASHA also publishes two documents that outline the scope of these

### **Telecommunication devices for the deaf (TDD):**

Telephone systems used by those with significant hearing impairments in which a typewritten message is transmitted over telephone lines and is received as a printed message.

### **Swallowing disorders**

**(dysphagia):** Difficulty swallowing that occurs when impairments affect any of the four phases of swallowing (oral preparatory, oral, pharyngeal, or esophageal), which places a person at risk for aspiration of food and/or liquid and potential aspiration pneumonia.



professions: “Scope of Practice in Speech-Language Pathology” and “Scope of Practice in Audiology.” These documents are available on the ASHA website ([www.asha.org](http://www.asha.org)).

ASHA’s Certificates of Clinical Competence (CCC) in Speech-Language Pathology (CCC-SLP) and Audiology (CCC-A) are nationally recognized professional credentials that indicate individuals have met rigorous academic and professional standards, and that they have the knowledge, skills, and expertise to provide high-quality clinical services. SLPs and audiologists must engage in ongoing professional development to keep their certification current.

As the need for speech-language pathology and audiology services has increased, membership in ASHA has steadily grown. As of 2016, ASHA had a membership of over 190,000, including members from countries other than the United States. Children and adults worldwide experience communication disorders, and perhaps in countries where there is the greatest need (the “developing countries”), there are the fewest professionals and resources to provide help.

### INSIGHT QUESTION

How could attending state and national conferences and conventions be valuable to your professional development and career?

## State Organizations

All U.S. states have their own state associations (e.g., California Speech-Language-Hearing Association [CSHA]) that provide many of the same services as ASHA, albeit at the state level. Both the state associations and the national ASHA organization hold annual conventions and conferences and provide numerous opportunities for continuing education and professional development. Individual state licensing boards also regulate the practice of speech-language pathology and audiology, with the state licensing requirements generally following the requirements for ASHA certification.

## International Organizations

Each country around the world that educates and trains individuals to work in these professions has its own national association—for example, Speech-Language and Audiology Canada (SAC), Australian Association of Speech and Hearing (AASH), Chinese International Speech-Language and Hearing Association (CICHA), and Egypt Society for Phoniatrics and Logopedics (ESPL). Note that many countries around the world use *phoniatrics* and *logopedics* as their terms for speech and language, respectively, in their association titles.

## Audiology Organizations

In addition to being members of ASHA, many audiologists are members of the American Audiological Association (referred to as “Triple A”—AAA). AAA is separate from ASHA and has its own national conventions designed to meet the needs of audiologists.

## Student Organizations

Students can join the **National Student Speech-Language-Hearing Association (NSSLHA)** while they are undergraduate or graduate students (full- or part-time, national or international). NSSLHA ([www.nsslha.org](http://www.nsslha.org)) provides students

### **National Student Speech-Language-Hearing Association (NSSLHA):**

The ASHA recognized national organization for undergraduate and graduate students interested in the study of human communication and related disabilities. NSSLHA’s mission is to promote unity and fellowship among students and sponsor professional development opportunities for these students.

with a closer affiliation to professionals in the discipline, as well as monthly professional publications and other support designed specifically for them. NSSLHA also has developed an excellent manual for students, titled *Communication Sciences Student Survival Guide* (NSSLHA, 2010), which provides, among other things, information on financing your education and advice (from students' perspectives) about enhancing your education and involvement in the profession throughout your education.

## ► Professional Ethics

To be nationally certified professionals, members of a profession must adhere to a code of ethics. Ethics is the process of deciding what is the right thing to do in a moral dilemma (Aiken, 2014). Ethics are the standards of conduct that guide professional behavior. They define acceptable versus unacceptable behaviors and promote high and consistent standards of practice.

The establishment of a code of ethics has been a major function of ASHA since its founding in 1925. For speech-language pathologists and audiologists, ethical practice transcends employment settings, levels of experience, and nature of the clientele. Once a speech-language pathologist or audiologist signs the agreement to follow the ASHA Code of Ethics and holds a current Certificate of Clinical Competence, he or she must abide by the ASHA Code regardless of the certification held or the location where services are provided (Miller, 2007). Failure to abide by the Code of Ethics could result in loss of certification or licensure. Refer to ASHA's website ([www.asha.org](http://www.asha.org)) for a copy of the Code of Ethics.

### ? INSIGHT QUESTION

Earning a degree in communication sciences and disorders is difficult. How much more difficult do you think it would be without arms and only one leg?

## ► The Team Approach

As professionals working with communication disorders, we are members of a team—in all of our work, we use the team approach. We typically work with other professionals as well as with family members of clients. At a minimum, the people on the team are the client and the clinician, with the client always being the most important team member. After all, without the client, there would be no need for any other team members. In most cases, the team includes several other people, such as family members of the client, the clinician's su-

### STUDENTS WITH ACCENTS AND DISABILITIES

Students from many countries and with many accents and nonstandard dialects choose to become speech-language pathologists or audiologists. ASHA's 1998a and 1998b position statements state that students and professionals in the communication sciences and disorders professions who speak with accents and/or dialects can effectively provide speech, language, and audiological services as long as they have:

- the expected level of knowledge in normal and disordered communication,
- the expected level of diagnostic and clinical case management skills, and
- if modeling is necessary, the ability to model the target phoneme, grammatical feature, or other aspect of speech and language that characterizes the client's particular problem (ASHA, 1998a, p. 1).

The above statement was reaffirmed in the ASHA (2011) Professional Issues Statement on The Clinical Education of Students with Accents (<http://www.asha.org/policy/PI2011-00324.htm>). That statement further provides specific "Strategies for Supporting Students When There Are Concerns About Their Accents".



**FIGURE 2-2** The team approach always includes the client/patient, family, and other professionals.

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pervisor or administrator, teachers, and reading specialists in a school setting. Depending on the setting and the needs of the client or patient, physicians, nurses, physical therapists, occupational therapists, respiratory therapists, and other professionals also may be involved directly with helping the person (**FIGURE 2-2**).

Typical treatment teams for different settings include the following members:

- University clinic: Client, family, student clinician, and supervisor
- School: Child, family, school speech-language pathologist, classroom or special education teacher, school psychologist, and others
- Hospital: Patient, family, physician, nurse, dietitian, speech-language pathologist, physical therapist, occupational therapist, psychologist, social worker, and others

Countless other people are indirectly involved with helping clients and patients, including secretarial and administrative staff, custodial and maintenance workers, and kitchen workers. The list of the “behind the scenes” people is long, and if any of these people are not doing their job well, that deficiency or limitation can affect the person we are trying to help. After clinicians have been working for a while, they begin to realize that what often makes the “machinery” of the work environment function smoothly are the people who are the least acknowledged for their contributions. As communication specialists, we need to show our appreciation for all people who are part of the big picture of helping people with communication disorders.

## ► Communication Disorders Professionals

The field of communication disorders involves interrelated professionals who begin by earning a bachelor’s degree (either a B.A. or a B.S., depending on the institution) in speech-language pathology, communication (communicative) disorders, or speech and hearing sciences (other terms may be used). Students also may earn an undergraduate degree in another major and then



begin their education at the graduate level, although they must take a series of undergraduate speech-language pathology and audiology courses to prepare for the more advanced courses in this field. At the graduate school level, they begin to specialize in either speech-language pathology or audiology. The entry-level requirement for speech-language pathologists to work professionally is an M.A. (Master of Arts) or M.S. (Master of Science). The entry-level requirement for audiologists is a doctoral degree, either a Ph.D. (Doctor of Philosophy) or Au.D. (Doctor of Audiology).

After receiving a master's degree, passing the national examination, and becoming nationally certified and state licensed (to be discussed later), individuals become independent practitioners. In some countries (e.g., the United Kingdom, Australia, and New Zealand), a bachelor's degree in speech-language pathology (therapy or logopedics) is a professional degree; however, students in these programs begin their education in speech-language pathology in their freshman year of college, and their senior year is roughly equivalent to a graduate year in the United States.

Some individuals in speech-language pathology choose to continue their graduate education after their master's degree by pursuing a Doctor of Philosophy (Ph.D.), Speech-Language Pathology Doctorate (SLP-D), or Doctor of Education (Ed.D.), which usually takes 3 to 5 years of additional education and training. SLPs and audiologists with doctorates have a range of opportunities as professors, clinicians, and researchers in a wide variety of settings, such as universities, hospitals, clinics, rehabilitation centers, laboratories, and corporations. The following is a brief explanation of the work of speech-language pathologists and audiologists.

## Speech-Language Pathologists

The American Speech-Language-Hearing Association has designated use of the professional title *speech-language pathologist*; however, many other English-speaking countries prefer to use the designation *speech-language therapist* (e.g., England, Ireland, and New Zealand). What we are called by other professionals, clients, patients, and their families depends somewhat on the setting in which we are working. In public schools, we are more likely to be called speech therapists, speech-language therapists, speech teachers (mostly by children), or speech and hearing specialists. In medical settings, we are commonly referred to by physicians, nurses, and patients as speech therapists or speech pathologists (rarely are we referred to as speech-language pathologists by other professionals).

The education, coursework, and clinical training of SLPs are specified by ASHA. The national professional organization specifies coursework and clinical training requirements and standards to help maintain consistency in the quality of new professionals throughout the United States. Upon completion of an M.A. or M.S. in their major, individuals are eligible to take the national *Praxis Examination* administered by Educational Testing Service (ETS). In addition, to earn ASHA certification, individuals must complete a 36-week **clinical fellowship year (CFY)**, which involves full-time work. After successful completion of all of these requirements, the person becomes a nationally certified speech-language pathologist.

## Scope of Practice

The **scope of practice** or work of speech-language pathologists may be described in a few words: We identify, evaluate, diagnose, and treat people of all ages who have communication and swallowing disorders. The following is a brief description

### Clinical fellowship year

**(CFY):** A 36-week full-time (35 hours per week) or the equivalent part-time mentored clinical experience totaling a minimum of 1260 hours begun after all academic coursework and university clinic training are completed; required by ASHA to be eligible for the Certificate of Clinical Competence (CCC).

**Scope of practice:** ASHA's delineation of the general and specific areas in which speech-language pathologists and audiologists may engage with the appropriate and necessary education, training, and experience.

of the primary roles in which speech-language pathologists may be involved when working with clients and patients.

**Evaluation (assessment):**

The overall clinical activities designed to understand an individual's communication abilities and disabilities before a treatment program is determined and established.

**Evidence-based practice**

**(EBP):** The integration of (a) external scientific evidence [research], (b) clinical expertise/expert opinion, and (c) client/patient/caregiver perspectives to providing high-quality services reflecting the interests, values, needs, and choices of the individuals served.

**Diagnosis:** The determination of the type and cause of a speech, language, cognitive, swallowing, or hearing disorder based on the signs and symptoms of the client or patient obtained through case history, observations, interviews, formal and informal evaluations, and other methods.

**Signs:** Objective findings (based on an evaluation) of a disorder, disability, disease, or change of condition as perceived by an examiner, such as an SLP, PT, OT, nurse, or physician.

**Symptom:** A subjective indication of a disorder, disability, disease, or change of condition as perceived by a client, patient, or other nonmedical or rehabilitation specialist, such as a family member.

**Evaluation of Communication and Swallowing Disorders.** When a speech-language pathologist suspects or identifies a communication or swallowing impairment, a thorough **evaluation (assessment)** is in order. These evaluations always need to follow **evidence-based practice (EBP)** (for further details, see the discussion of the “Treatment of Communication and Swallowing Disorders”). The evaluation generally includes an interview and standardized or *clinician-devised* assessments (i.e., nonstandardized tests designed for specific patients). The purposes of the evaluation are to determine the following elements:

- The cause of the problem
- The nature of the problem
- Whether it is progressive or static
- The characteristics of the problem
- What makes it better and what makes it worse
- The severity of the problem
- Treatment goals
- The potential for habilitation or rehabilitation

**Diagnosis of Communication and Swallowing Disorders.** Determining a **diagnosis** means the SLP makes a professional decision as to the specific diagnostic terms that may be used to best represent the client's or patient's communication, cognitive, or swallowing problems. The diagnosis is based on the **signs, symptoms**, and test results of the client or patient. Specific diagnostic terms, with their associated billing codes, are necessary for SLPs to be reimbursed by insurance companies, Medicare, or other third-party payers. A written description of a client's or patient's problems in a formal report is essential, as is *documentation* (reporting) of all therapy goals, rationales, and treatment procedures. (The terms *therapy*, *treatment*, and *intervention* are often used interchangeably by authors, although most SLPs use the term *therapy* when talking among themselves—for example, “I have some therapy to do.”)

**Treatment of Communication and Swallowing Disorders.** Most speech-language pathologists love doing therapy and developing creative strategies for helping clients and patients. Our evaluations and therapy always need to have evidence-based practice (EBP) as their foundation. Evidence-based practice is the integration of (1) external scientific evidence (research), (2) clinical expertise or expert opinion from highly regarded clinicians, and (3) client/patient/caregiver perspectives to providing high-quality services reflecting the interests, values, needs, and choices of the individuals whom we serve. Because EBP is client/patient/family centered, the clinician's task is to interpret the best current evidence from systematic research in relation to an individual client/patient, including that individual's preferences, environment, culture, and values regarding health and well-being. Ultimately, the goal of evidence-based practice is providing optimal clinical service to a client/patient on an individual basis. Because evidence-based practice is a continuing process, it is a dynamic integration of ever-evolving external scientific evidence and clinical expertise in day-to-day practice (ASHA, 2012).

The ASHA (2005) Joint Coordinating Committee on Evidence-Based Practice established the following position in regard to EBP:

It is the position of the American Speech-Language-Hearing Association that audiologists and speech-language pathologists incorporate the principles of evidence-based practice in clinical decision making to provide high quality clinical care. The term *evidence-based practice* refers to an approach in which current, high-quality research evidence is integrated with practitioner expertise and client preferences and values into the process of making clinical decisions.

By engaging in evidence-based clinical practice, audiologists and speech-language pathologists accomplish the following goals:

- They recognize the needs, abilities, values, preferences, and interests of the individuals and families to whom they provide clinical services, and they integrate those factors with the best current research evidence and their own clinical expertise in making clinical decisions.
- They acquire and maintain the knowledge and skills necessary to provide high-quality professional services, including knowledge and skills related to evidence-based practice.
- They evaluate prevention, screening, and diagnostic procedures, protocols, and measures to identify maximally informative and cost-effective diagnostic and screening tools, using recognized appraisal criteria described in the evidence-based practice literature.
- They evaluate the efficacy, effectiveness, and efficiency of clinical protocols for prevention, treatment, and enhancement using criteria recognized in the evidence-based practice literature.
- They evaluate the quality of evidence appearing in any source or format, including journal articles, textbooks, continuing education offerings, newsletters, advertising, and web-based products, prior to incorporating such evidence into clinical decision making.
- They monitor and incorporate new and high-quality research evidence having implications for clinical practice.

## Work Settings

Speech-language pathologists work in a variety of work settings, with considerable diversity among their clients and patients. These work environments can roughly be divided into educational and medical settings. The largest employer of SLPs is the public schools, which are legally mandated in the United States to provide these services to every child from birth to 21 years of age, and to students who are in adult transition programs who need and qualify for services. Many SLPs also work in infant and early childhood programs funded by local and state agencies. Speech-language pathologists are working with increasingly complex clinical cases, including children with multiple handicaps.

At the other end of the educational spectrum, increasing numbers of speech-language pathologists are being employed by community colleges to provide services to older students and to direct or be involved with programs for people of all ages who have sustained neurological damage. Some speech-language pathologists also provide clinical supervision in university training programs and may do some clinical teaching.

Many SLPs work in medical settings of all types, including **acute care hospitals**, **subacute hospitals**, **convalescent hospitals (skilled nursing facility [SNF])**, and **inpatient** and **outpatient** clinics. *Home health care* (i.e., therapy provided in the patient's home) is an increasingly popular employment opportunity for SLPs. Home health care is designed to provide rehabilitation services without the high

**Acute care hospitals:** A hospital where patients are treated for brief but severe episodes of illness, injury, trauma, or during recovery from surgery.

**Subacute hospital:** A level of care needed by patients who do not require acute care but who are medically fragile and require special services (e.g., respiratory therapy, intravenous tube feeding, and complex wound management care).

**Convalescent hospital (skilled nursing facility [SNF]):** A medical facility that provides long-term medical, nursing, or custodial care for individuals (e.g., during the course of a chronic illness or the rehabilitation phase after an acute illness or injury).

**Inpatient:** A patient who has been admitted to a hospital or other healthcare facility for at least an overnight stay.

**Outpatient:** A patient who is not hospitalized but is being treated in an office, clinic, or medical facility.

cost of hospitalization. *Private practice* provides opportunities for SLPs to work with a variety of clients or to specialize in a specific age group or disorder. Private practice also allows speech-language pathologists to have considerable independence and flexibility in their work schedules and to develop their entrepreneurial skills (Fogle, 2001).

The aging population presents an increasing number of clinically complex cases with multiple impairments. For example, it is not uncommon to see a patient with a hearing loss, stroke, heart disease, cancer, and visual impairments, along with arthritis and diabetes mellitus. Because speech-language pathologists are good communicators with good to excellent interpersonal skills, they are often advanced into administrative positions in various work settings, which increases their opportunities in a variety of ways (Lubinski, Golper, & Frattali, 2007).

Speech-language pathologists can devote their time to the age groups they most enjoy—for example, early childhood, school-age, adolescence, adult, or elderly. Many SLPs enjoy working in more than one setting. For example, some clinicians work in public schools during the day as their primary job, but then work in hospitals or their own private practice for a few hours after leaving the school in the afternoon.

In 2013, ASHA reported that almost 56% of SLPs in the United States were employed in educational settings, with 53% working in schools and 2.9% working in colleges and universities. Almost 40% were employed in healthcare settings, including 12.6% in hospitals, 10.4% in *residential healthcare facilities* (convalescent hospitals), and 15.8% in *nonresidential healthcare facilities* (clinics, rehabilitation centers). Nearly one-fifth (18.8%) were employed full- or part-time in private practice.

Job opportunities in foreign countries are plentiful; all industrialized countries have speech-language pathologists, and many have shortages. In addition, military bases worldwide often provide speech-language pathologists for the dependents of service members who are being educated in schools on the base. Many military and VA hospitals have speech-language pathologists on staff.

**FIGURE 2-3** shows the primary employment settings of speech-language pathologists in 2013.

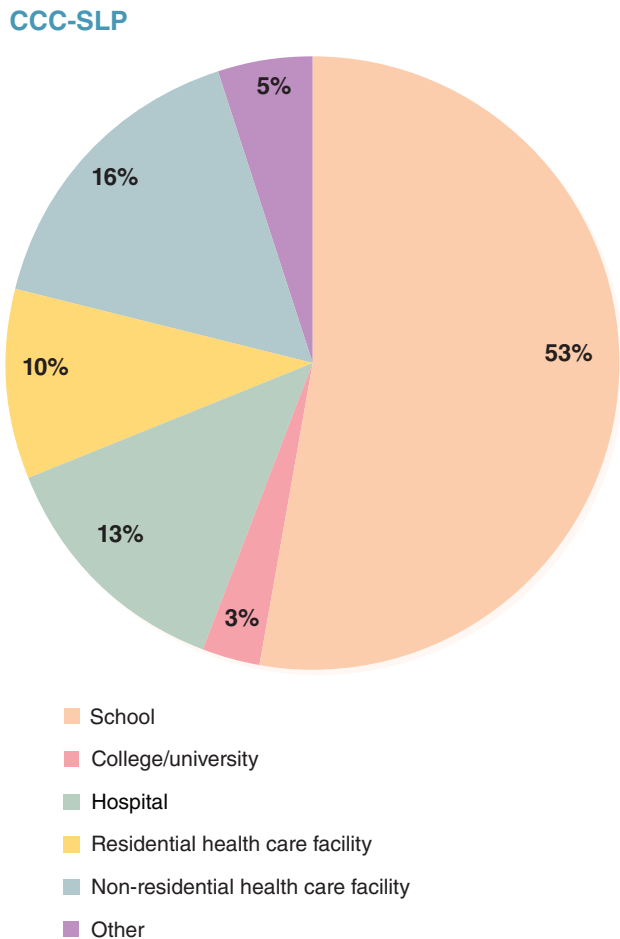
## Employment Outlook

According to the October 2016 issue of *The ASHA Leader*, only 1% of ASHA-certified speech-language pathologists were unemployed and seeking work at the end of 2015. This figure, which is below the current national unemployment rate of 5%, has remained steady over the past 10 years, even as the overall U.S. unemployment rate rose to 10% in 2009. *US News and World Report* (2016) ranked speech-language pathologists number 19 in its Best Health Care Jobs category and number 28 in its 100 Best Jobs in the U.S. category (“Good jobs are those that pay well, challenge us, are a good match for our talents and skills, are not too stressful, offer room to advance, and provide a satisfying work-life balance.”) SLPs typically have a high job-satisfaction level. According to the U.S. Department of Labor’s Bureau of Labor Statistics, in its *Occupational Outlook Handbook* (2016), the job outlook is very good for speech-language pathologists for the years 2016–2024, with a 21% increase in SLP positions expected (“much faster than average for all occupations”). The median annual wage for speech-language pathologists in May 2015 was \$73,410 (\$35.29 per hour).

Elementary, secondary, and special education, as well as other federally mandated services, provide employment opportunities for speech-language pathologists in schools. Also, because of the increasing number of premature

### INSIGHT QUESTION

Many people are surprised by SLPs’ relatively broad scope of practice, the variety of clients and patients with whom SLPs work, and the array of work settings in which SLPs are employed. Are there any surprises for you?



**FIGURE 2-3** ASHA-certified speech-language pathologists by primary employment setting.  
Data from ASHA Summary Membership and Affiliation Counts for Year-Ending 2013.

(i.e., less than 5 pounds [2.7 kg]) and micropremature (i.e., less than 2 pounds [0.91 kg]) infants who now survive, there will be increased needs for SLP services throughout much of these children's early development and education. There will continue to be a long-term shortage of SLPs in inner cities, rural, and less densely populated areas. The number of jobs in all types of medical settings will continue to increase for SLPs, partly because of the growing elderly population's susceptibility to strokes.

As healthcare professionals and the public become more aware of the importance of identifying and diagnosing speech, language, cognitive, swallowing, and hearing problems, SLPs in clinics, home health care, and private practice are expected to see increasing needs for their services. As a speech-language pathologist, having a job you enjoy should never be a problem.

## Audiologists

Audiologists are professionals who, “by virtue of academic degree, clinical training, and license to practice and/or professional credential, are uniquely qualified to provide a comprehensive array of professional services related to . . . the audiologic identification, assessment, diagnosis, and treatment of persons with impairments of auditory and vestibular function, and to the prevention of impairments associated with them” (AAA, 2004). ASHA, in conjunction with the American Academy of Audiology, determines the education, coursework, and clinical training of audiologists. Audiologists must earn either a Ph.D. or Au.D., complete a clinical fellowship



in audiology, and pass the national (ASHA) examination in audiology. Audiologists need to be licensed, credentialed, or both in their state of employment and must earn continuing education units (CEUs). In some states, for audiologists to work with and dispense hearing aids, they must also become licensed hearing instrument specialists.

## Scope of Practice

Audiologists evaluate an individual's hearing loss to determine the type and extent of the loss. They further assess the benefits of amplification (e.g., hearing aids) and habilitation or rehabilitation to maximize the person's hearing ability. Many audiologists are able to sell and dispense hearing aids or other amplification devices as part of their practice.

Most states have enacted legislation requiring universal screening of newborn infants for hearing loss, which has become an important new area of practice for audiologists. Another area of practice for some audiologists involves testing for balance disorders that may be associated with inner ear problems. As with speech-language pathologists, the scope of practice of audiologists is expanding.

## Work Settings

Audiologists work in a variety of settings, including public schools, hospitals, clinics, private practices, and industry. Some audiologists also function as consultants to various agencies and help determine appropriate hearing conservation and protection requirements for state and local government employees, as well as industry standards. Some audiologists work in two or more settings in any one week—for example, private practice, industry, and consulting.

Audiologists also teach and supervise in university programs. Even when a university does not offer an audiology program, an audiologist still must provide the basic coursework and training in audiology and aural rehabilitation for the speech-language pathology majors.

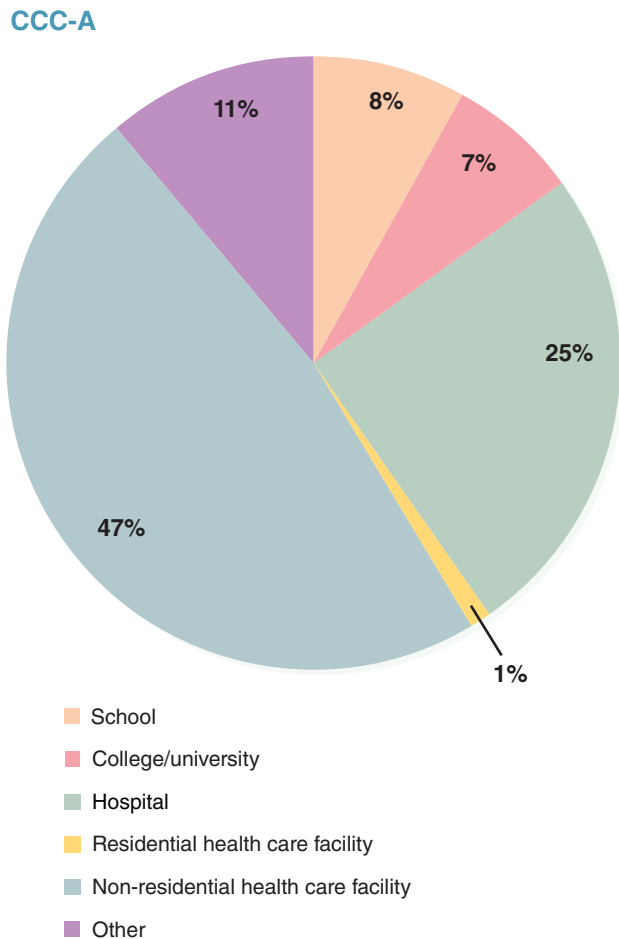
**FIGURE 2-4** shows the primary employment settings of audiologists in 2010.

## Employment Outlook

The 2016 *Occupational Outlook Handbook* from the U.S. Department of Labor's Bureau of Labor Statistics reported that the job outlook is very good for audiologists, projecting that between 2016 and 2024 there will be approximately a 29% increase in these jobs ("much faster than average for all occupations"). The median annual wage for audiologists in May 2015 was \$74,890 (\$36.01 per hour).

The number of jobs in all types of medical settings will continue to increase for audiologists, partly because of the growing elderly population in the United States; these individuals are highly susceptible to hearing losses. At the other end of the age spectrum, micropremature infants tend to have increased needs for audiological services throughout much of their early development and education. Audiologists will become increasingly in demand as healthcare professionals and the public become more aware of the importance of protecting hearing, identifying and diagnosing hearing problems, and wearing hearing aids as willingly as most people wear contact lenses or eyeglasses.

Audiologists also can expect to see their employment opportunities in schools expand if enrollment increases in elementary, secondary, and special education classes. The long-term shortage of audiologists in inner cities and less densely



**FIGURE 2-4** ASHA-certified audiologists by primary employment setting.

Data from ASHA Summary Membership and Affiliation Counts for Year-Ending 2013.

populated areas, including rural communities, is likely to continue. Overall, audiologists are and will be needed in many work settings and most communities worldwide.

## Speech, Language, and Hearing Scientists

Speech, language, and hearing scientists account for a relatively small portion of the speech-language pathology and audiology professions (less than 5%). They have doctorates and mostly work in universities, although some are employed in government agencies, research centers, laboratories, or industry. Some also provide clinical services in either speech-language pathology or audiology. Depending on their specialty (speech, language, or hearing), these scientists usually are involved with *basic research*—that is, investigating the anatomy and physiology of the speech and hearing mechanisms, the physics and acoustics of speech-sound production, or the acquisition and structure of language. In many cases, they generate grants to carry on their research.

Speech, language, and hearing scientists represent the skeletal framework of the speech-language pathology and audiology professions: Without them, the normative data would not be available for clinicians to compare the normal with the abnormal or to understand the scientific rationales for many clinical procedures. The research data collected by scientists are essential to those who provide direct services to clients and patients of all ages. A firm grounding

in normal communication processes through courses such as anatomy and physiology and speech and hearing science provides the foundation from which clinicians can better understand, diagnose, and treat communication disorders and delays.

**Speech-language pathology assistant (SLPA):**

A support person who performs tasks as prescribed, directed, and supervised by ASHA-certified SLPs.

## Speech-Language Pathology Assistants

For individuals who do not want to or cannot pursue a B.A. and M.A. in speech-language pathology, ASHA established the role of **speech-language pathology assistant (SLPA)**. SLPAs are support personnel who, following academic and/or on-the-job training, perform tasks prescribed, directed, and supervised by ASHA-certified speech-language pathologists. According to ASHA guidelines and state licensure laws, no speech-language pathologist can employ an SLPA without a certified speech-language pathologist as a supervisor. SLPAs are more commonly employed in school-based programs than in medical settings or clinics.

To become SLPAs, individuals may earn an Associate of Arts degree (AA) in speech-language pathology assistant training programs. ASHA is the credentialing body that offers a national registration process to ensure basic knowledge and competencies are developed for those wanting to become SLPAs. Many SLPAs eventually choose to pursue a B.A. and M.A. to become state licensed and ASHA-certified speech-language pathologists (Moore & Pearson, 2003).

The following list of SLPA responsibilities was developed by ASHA (2000):

- Assist the SLP with speech-language and hearing screenings (without interpretation).
- Follow documented treatment plans or protocols developed by the supervising SLP.
- Document patient/client performance (e.g., tally data for the SLP to use; prepare charts, records, and graphs) and report this information to the supervising SLP.
- Assist the SLP during assessment of patients/clients.
- Assist with informal documentation as directed by the SLP.
- Assist with duties such as preparing materials and scheduling activities as directed by the SLP.
- Collect data for quality improvement.
- Perform checks and maintenance of equipment.
- Support the SLP in research projects, in-service training programs, and public relations programs.
- Assist with departmental operations (e.g., scheduling, record keeping).
- Exhibit compliance with regulations, reimbursement requirements, and other responsibilities associated with the assistant position.

## Audiology Assistants

The American Academy of Audiology (2006) has defined the functions of audiology assistants as follows:

An audiology assistant is a person who, after appropriate training and demonstration of competence, performs delegated duties and responsibilities that are directed and supervised by an audiologist. The role of the assistant is to support the audiologist in performing routine tasks and duties so that the audiologist is available for the more complex evaluative, diagnostic, management and treatment services that require the education and training of a licensed audiologist. (p. 5)

The duties of an audiology assistant may include equipment maintenance, hearing aid repair, neonatal screening, preparation of patients for electrophysiologic and balance testing, hearing conservation, air conduction hearing evaluation, assisting the audiologist in testing, record keeping, clinical research, and other tasks after full and complete training and delineation by the supervising audiologist.

The minimal educational background for an audiology assistant is a high school diploma or equivalent, and competency-based training. Some community colleges and online training programs offer an Associate Degree in Audiology for training of audiology assistants. However, the state licensed audiologist who employs and supervises an assistant must assure that the assistant can perform all duties and responsibilities that are delegated (AAA, 2010).

## Chapter Review

### Chapter Summary

You have begun learning about the professions and professionals of speech-language pathology and audiology, and you are in good company. Most countries with speech-language pathologists and audiologists have strong national organizations that help support and regulate the professions. Excellent job opportunities are available throughout the United States and in many other countries around the world for both professions. The people who study and work in these professions are interesting and caring people who enjoy helping others. These professionals are team players who interact regularly with their colleagues as well as with many other professionals.

### Study Questions

#### Knowledge and Comprehension

1. Discuss how helping a child with a communication delay or disorder also can help other people in the child's life.
2. Discuss why it is important as students and professionals to use person-first language.
3. Explain the team approach and why it is important in the work of speech-language pathologists and audiologists.

#### Application

1. Discuss how you might use some of the information you learn in this text and course in your personal life, even if you do not become a speech-language pathologist or audiologist.
2. Discuss how public laws affect the work of speech-language pathologists and audiologists.

3. Discuss some specific things you could do to keep yourself abreast of new developments in the profession.

### Analysis and Synthesis

1. Explain the similarities and differences for speech-language pathologists and audiologists.
2. Discuss why it is important for a professional organization (e.g., ASHA) to specify the education, coursework, and training of individuals entering a profession.
3. Explain why speech-language pathologists might be referred to by different titles depending on the setting in which they work.

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