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Unit 1
Health Informatics

While studying, look for the online icon to:

- **Review** vocabulary with e-flash cards and games
- **Assess** learning with quizzes and online exercises
- **Expand** knowledge with animations and activities
- **Listen** to pronunciation of key terms in the audio Glossary

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Career Pathway

Healthcare Insider:
P. M. Xiong, Bachelors of Science
Health Care Management—Patient Care Coordinator

"I find my job to be very rewarding! The opportunity to meet new people and get to know them is the best part of my job. Making patients feel comfortable while they are visiting the dental office is essential. Many people are afraid of the dentist due to bad experiences. While working at the dental office, I realized that I wanted to manage my own office one day. I made the decision to go back to school to continue my education while working full time. It was very difficult to work full time, go to school full time, and be a mom to two young kids. But it was all worth it in the end."

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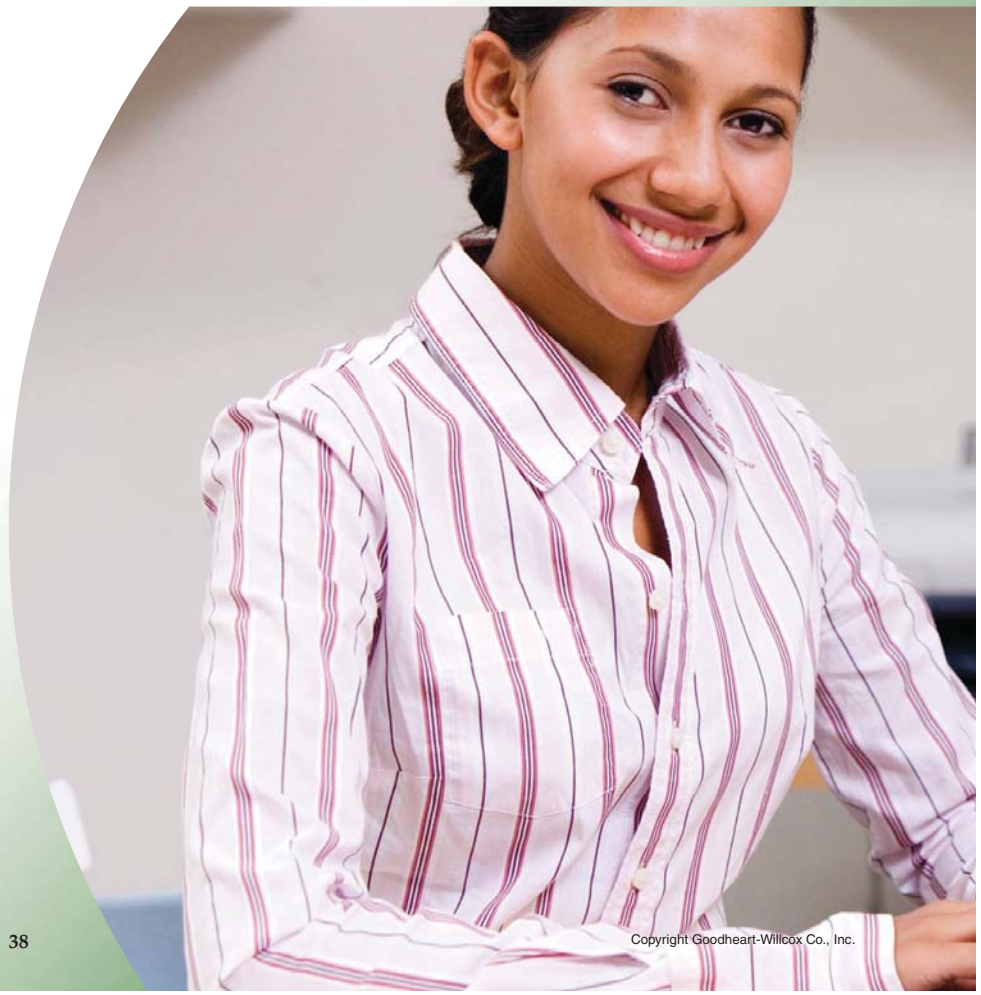
Chapter 2
Career Skills in Health Informatics



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PROFESSIONAL VOCABULARY

You will need to learn the essential terms listed below before you begin your reading. These terms will help you understand the main concepts of the chapter. These terms, which will be highlighted in yellow within the text, will become part of your professional vocabulary.

In addition to these essential terms, you will see bold terms throughout the chapter. The meanings of these terms are explained where the terms first appear. The bold terms, like the essential terms listed here, will become part of your professional vocabulary and deepen your understanding of the topics presented here.

career portfolio a written record of career planning and preparation

confidentiality the legally protected right of patients to have their personal and medical information kept private

employability skills skills related to choosing a career, acquiring and keeping a job, changing jobs, and advancing in a career

health informatics services career pathway that involves methods, devices, and resources used to acquire, store, retrieve, and work with healthcare and biomedical information

HOSA–Future Health Professionals a career and technical student organization for future healthcare workers

interdisciplinary healthcare team a group of professionals from different health science training backgrounds working in coordination toward a common goal for the patient

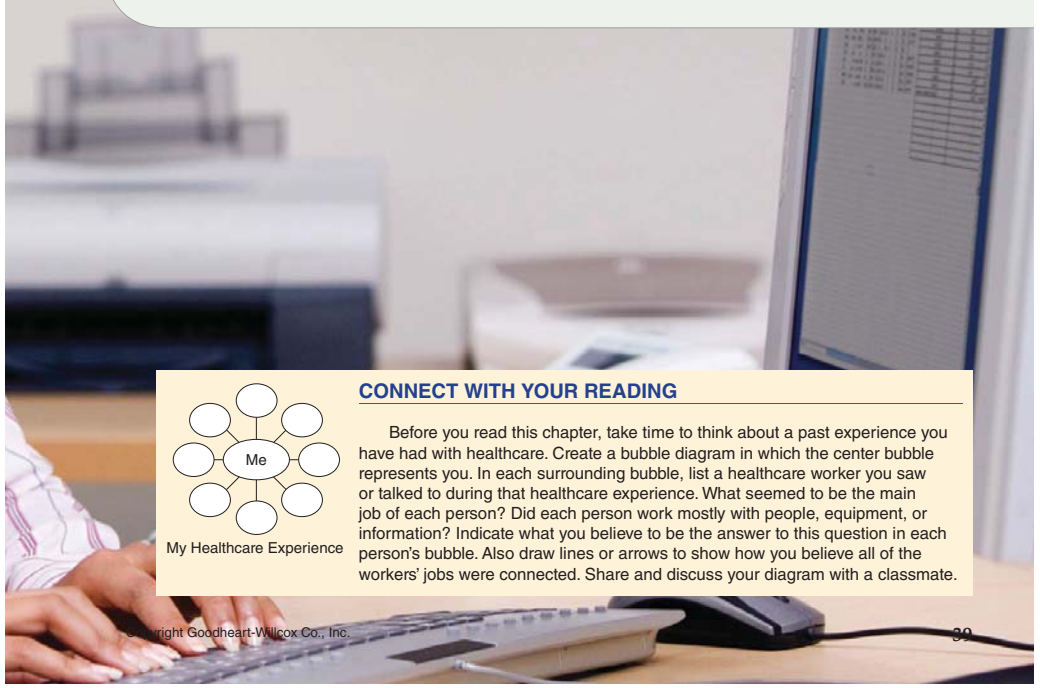
internship practical work or training experience that allows students to apply what they have learned in class

medical coding the act of assigning numbers to descriptions of a patient's diseases, injuries, and treatments according to established codes

personal traits an individual's unique combination of qualities and characteristics

professional look the standards of appearance normally expected of a qualified person in a work environment

technical skills the ability to perform tasks in a specific healthcare discipline or department



CONNECT WITH YOUR READING

My Healthcare Experience

Before you read this chapter, take time to think about a past experience you have had with healthcare. Create a bubble diagram in which the center bubble represents you. In each surrounding bubble, list a healthcare worker you saw or talked to during that healthcare experience. What seemed to be the main job of each person? Did each person work mostly with people, equipment, or information? Indicate what you believe to be the answer to this question in each person's bubble. Also draw lines or arrows to show how you believe all of the workers' jobs were connected. Share and discuss your diagram with a classmate.

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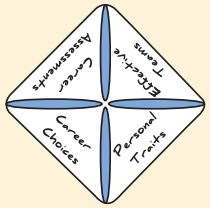

MAP YOUR READING

Create a visual summary for this chapter. Begin with a square sheet of paper—an 8 1/2-inch square works well. Fold each of the four points of the square to the center. Label each of the four resulting flaps with one of these topics: *Personal Traits*, *Career Choices*, *Effective Teams*, and *Career Assessments*. When you finish reading each of these sections in the chapter, open the corresponding flap and draw a picture or symbol to illustrate what you have read. Ask yourself what each topic looks like, how you could draw it, and what graphic or symbol best represents it. Finally, for each of the four topics, write two words that explain how the topic relates to you personally in the center square of your visual summary.

When considering healthcare careers, most people think of becoming doctors or nurses. Yet there are hundreds of different jobs in the field of healthcare. Some of those jobs fall into the career pathway of health informatics services. If you have a desire to help others, and you enjoy learning about the latest technology, you should consider a health informatics career.

In this chapter you will learn about job opportunities in **health informatics services** and begin to assess your personal career interests and aptitudes. You will also see how teamwork unfolds in a medical office and study the qualities of effective teams. You will learn the guidelines for effective correspondence and for maintaining a patient's medical record, which are important technical skills for a job in health informatics services. You will also complete a career assessment, establish your career portfolio, and learn how to improve your skills by participating in activities sponsored by HOSA–Future Health Professionals.

health informatics services
career pathway that involves methods, devices, and resources used to acquire, store, retrieve, and work with healthcare and biomedical information

The Health Informatics Worker: Myesha

When asked about her job, Myesha always says she loves what she does. Myesha is a puzzle solver. As a health informatics services worker, she works with patient data every day, doing the **medical coding** for every patient visit in the medical office where she works. Myesha has a strong background in anatomy. She understands the origins of, symptoms and signs of, diagnostic tests for, treatments for, and outcomes of diseases.

The information Myesha provides for a patient's medical record allows the physician she works for to receive payment for treatment services. Correctly coded information also allows the patient to receive health insurance benefits for those services. One of Myesha's favorite parts of her job is working with Medicare patients to arrange treatment plans that meet complex insurance requirements. Patients with serious illnesses feel a tremendous sense of relief when they find out that their medical costs will be reimbursed.

Myesha likes to help people, but she doesn't provide direct, hands-on care. Instead, she helps patients by ensuring their medical records contain accurate information. Myesha is a worker in the health informatics services career pathway.

medical coding
the act of assigning numbers to descriptions of a patient's diseases, injuries, and treatments according to established codes

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Personal Traits

Are you well organized? Are you thorough and attentive to detail when you work? Is correct spelling important to you? If you possess these **personal traits**, then you might enjoy a career in the health informatics services pathway.

As you might guess from the name, information is the main focus of the health informatics worker. Because a patient's health can depend upon the accuracy of his or her medical record, health informatics workers must be thorough, reliable, and trustworthy.

Workers protect the privacy of patient information by maintaining **confidentiality**. Keeping information confidential requires more than avoiding talking about a patient's condition in a public place. Health informatics workers maintain confidentiality by

- not sharing computer passwords;
- closing any computer screen that shows patient information before leaving their work area;
- making sure that medical documents are not left in a fax machine where other people can see them;
- knowing who is able to receive a patient's medical information and which parts can be shared; and
- providing only facts and not making judgments or assumptions about the information.

Do you enjoy working with computers? Do you like learning new things? Medical records are quickly evolving from paper to electronic systems, so the computer is the constant companion of the health informatics worker.

Adjusting to new equipment, updated technologies, and revised software is common for health informatics workers. Workers must interpret rules and detailed instructions and keep up with constantly changing guidelines for coding and recording information. Health informatics workers welcome the challenge of adjusting to these changes because they want to improve the process for keeping accurate medical records.

personal traits
an individual's unique combination of qualities and characteristics

confidentiality
the legally protected right of patients to have their personal and medical information kept private

Professionalism: Kia

When you visit your local medical clinic, Kia's bright smile welcomes you. She is the medical assistant who greets you at the reception desk. As a health informatics worker, Kia accesses your account to update your personal information and checks information about your insurance coverage. She schedules your appointments and forwards your phone call to the correct worker when you call the clinic.

Kia's appearance and attitude must leave patients with a positive impression of the clinic. Without a good first experience, patients may assume that the clinic's medical care is poor and choose to find a different medical provider. A medical office is like any other business: it can't stay open if it doesn't make money.

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professional look the standards of appearance normally expected of a qualified person in a work environment

Although Kia loves fashionable clothes, she is careful to wear business-like clothing at work. She chooses skirts and tops that are not too revealing, low heels, minimal jewelry, and light makeup to create a **professional look**.

Kia understands that she needs to look mature and **competent**, or *capable*, to patients of all ages. Appearing skilled and experienced projects an image of professionalism. In her office, visible tattoos are not allowed, and piercings are limited to her ears. Her clothing is neat, clean, and in good condition. For Kia, the way she looks is just as important as the way she acts.

Kia conveys a positive attitude naturally. She admits it was a challenge, however, to learn the practical steps for maintaining confidentiality in a medical clinic. She reminds herself to speak quietly so that patient information can't be heard by others. She is careful not to use a patient's name when calling coworkers over the intercom for a phone call. She has learned to avoid conversations about patients when she is in the elevator or the cafeteria.

Health Informatics Services Career Choices

Jobs in health informatics services don't focus on direct interaction with patients or hands-on patient care. These jobs would appeal to people who are more interested in the data and information involved in healthcare than in patient interaction. If you enjoy both technology and healthcare, you might consider a career in health information management, health information technology, or health informatics (Figure 2.1).

Health Information Management

Health information management (HIM) workers assemble and organize a patient's health information to create a medical record. This document includes a **medical history** that lists all of the diseases and surgeries a patient has had, his or her current symptoms, results of examinations and diagnostic tests, treatments, and other health services. The record also lists the patient's **family medical history** because some

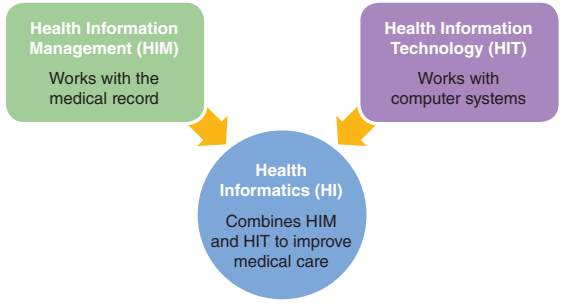

Figure 2.1 Health informatics services is an umbrella pathway for different types of career options that increasingly combine health information and technology. Which of the three career categories listed most interests you?

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health concerns are genetic. The presence of a genetic marker for cancer or heart disease can shed light on a patient's illness or set of symptoms. Finally, the medical record contains **personal identifying information** such as a Social Security number to connect a patient to the correct record.

Increasingly, HIM employees work with electronic health records, which are stored on a computer database instead of in paper files. HIM workers understand the flow of information within healthcare facilities, from large hospital systems to a physician's private practice. HIM workers are vital to the daily collection, management, and protection of health information.

People who work in the field of health information management are called *health information technicians*. Health information technicians can specialize in particular kinds of information and data. For example, some—like Myesha, whom you read about at the beginning of the chapter—learn to code diagnoses and procedures using a numbering system. Each numerical code determines the payment the healthcare provider receives from Medicare, Medicaid, or other insurance programs. Other health information technicians may specialize in cancer registry data collection. This data is used to track treatment, survival, and recovery rates for research purposes.

Technicians work in all types of medical facilities, from dental offices to medical clinics to hospitals. Day shifts are common, with evening and night shifts available in facilities that are open 24 hours a day. A two-year associate's degree is the most common educational requirement for a health information technician.

Employers prefer to hire credentialed technicians. To become credentialed, a worker must pass a test to become certified and will continue to take classes each year to keep that certification up-to-date. There are separate certifications for health information technicians and medical coders (Figure 2.2).

Technology is changing the work and job titles of some health information technicians. For example, the medical **transcriptionist** used to type medical record information from a physician's recorded **dictation**, a verbal recording describing a patient's symptoms and the treatment given. This was a special skill that involved listening, pausing the recording, and accurately typing what was said. Recent improvements in computerized speech recognition software have made typing almost completely unnecessary.

Figure 2.2 Certifications for Health Information Technicians

Registered Health Information Administrator (RHIA®)	manages patient health information and medical records
Registered Health Information Technician (RHIT®)	ensures that medical records are complete, accurate, and entered in the correct format
Certified Coding Associate (CCA®)	qualified to code in both hospitals and physician practices
Certified Coding Specialist (CCS®)	skilled in coding patient medical record data in the hospital setting

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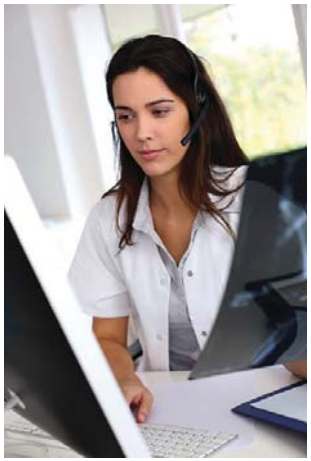

Figure 2.3 Transcriptionists, or *speech recognition editors*, utilize technology in their job every day. Many work from home and provide an important service to a healthcare facility.

Transcriptionists may now be called *speech recognition editors* (Figure 2.3). Their job is to correct errors made by speech recognition software. The work is often done at home, and the technician may be located far away from the facility. Sometimes these workers are located in a different state or even a different country from the facility for which they work.

Advancing in a health informatics career usually means getting more education and experience. With a bachelor's or a master's degree, experienced technicians can become compliance or privacy officers, medical records managers, or administrators. Those who advance typically possess strong business and management skills. Work in more advanced positions can involve long hours, and managers may have to respond to problems at all hours of the day. They must adapt to changing technology, interpret complex regulations, and work to improve efficiency while maintaining quality care.

Health Information Technology

Health information technology (HIT) focuses on the systems that are used to manage health information and the secure exchange of health information in a digital format. HIT workers understand the software and hardware used to manage and store patient data. These workers train in computer science and provide support for the electronic health records that HIM workers use to document a patient's health information.

Your fascination with computers and computer systems could lead you to an HIT career as a data analyst, systems analyst, or clinical information system specialist. All of these jobs are centered on computer data. Healthcare facilities need workers who can develop computer programs to collect, share, and store patient information. Some workers are needed to update programs and repair glitches in software. Others make sure that the correct information is collected, and develop security systems for maintaining the privacy of information. These jobs generally require a bachelor's degree. This occupational area is experiencing a high rate of growth, so job opportunities should be plentiful in the coming years.

Health Informatics

A new group of careers—**health informatics (HI)**—is emerging at the intersection of health information management and health information technology. Health informaticists (workers in health informatics) design and develop information systems that improve the quality, effectiveness, and efficiency of patient care. For example, they may study electronic health data to document patient safety concerns, patterns of disease, or the outcomes of various treatments. While the health informatics services pathway is broad, including all of the careers within the pathway, the emerging field of health informatics focuses on the science of using computer technology and health information management to advance medicine.

Students interested in informatics can consider four focused areas for research:

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- **Medical informatics**, or *bioinformatics*, is based on physician research and is of interest to medical students.
- **Nursing informatics** focuses on clinical research and attracts nursing students.
- **Public health informatics** includes public health and bio-surveillance (tracking disease patterns and threats to the health of humans, animals, and plants) and is of special interest to public health students (Figure 2.4).
- **Applied informatics** examines how medical information moves in an electronic environment. It studies processes, policies, and technological solutions, and it attracts HIM students.

Figure 2.4 People working in public health informatics—a specific focus within health informatics—track disease patterns that might threaten humans. Would you be interested in this type of work?

Unlike many other healthcare workers, biomedical and health informatics professionals possess a level of expertise in more than one field. Most health informatics jobs require a combination of computer and data science knowledge as well as some type of healthcare or business background. A bachelor's or master's degree in medical informatics, computer science, public health, or another field related to health science is a common requirement for employment.

Job titles in the health informatics field vary widely. Some examples include *nursing informatics director*, *director of IT informatics*, *regional informatics manager*, *health information systems analyst*, *clinical informatics specialist*, *informatics outreach architect*, and *pharmacy informatics specialist*.

As you might expect, health informaticists work in hospitals with research programs and large healthcare provider organizations, but they are also employed by government agencies, insurance companies, and software development and production organizations. Individuals with an informatics background might also find employment in the rapidly expanding area of **telemedicine**. In this field, communication and information technologies are used to provide medical services to patients in remote locations. Telemedicine virtually brings the medical specialist to the patient.

Related Careers

If you want more contact with patients than you would have in traditional HIM, HIT, and HI jobs, consider becoming a medical assistant or health educator. Both of these jobs require the use of health information, but they also allow for interaction with patients.

Medical Assistants

If you would like more contact with patients than you would have in the jobs already described, you may want to consider becoming a medical assistant. Medical assisting is one of the fastest growing occupations, which means that many jobs should be available. Medical assistants work in a medical office for physicians, chiropractors, or other healthcare professionals. Their job is to keep the office running smoothly by performing a variety of tasks. If you are looking for variety, you will find it as a medical assistant (Figure 2.5 on the next page).

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Figure 2.5 Tasks of a Medical Assistant

Administrative/Clerical	Clinical
scheduling • hospital admissions • clinic appointments • laboratory services filing insurance forms answering the telephone greeting patients writing letters and memos updating patient records processing billing	taking medical histories recording vital signs assisting with examinations performing basic lab tests collecting and preparing laboratory specimens instructing patients about medication and special diets authorizing prescription refills as directed drawing blood

internship
practical work or training experience that allows students to apply what they have learned in class

Medical assistants usually complete a one- or two-year training program that includes an **internship**. Interns spend time at a healthcare facility performing the skills they have learned in school. This work is part of their training program and is usually unpaid. They are supervised by a healthcare employee and by a school instructor. Graduates of medical assistant programs can become certified and choose a specialty area such as podiatry (puh-DI-uh-tree)—a medical practice concerning the feet—or ophthalmology (ahf-thal-MAH-luh-jee), a medical practice concerned with the eyes. Experienced assistants can advance to other occupations, such as office management, nursing, or laboratory technology, through additional training or education.

Health Educators

Helping patients use information to prevent illness and manage chronic conditions is becoming more important as healthcare costs increase. Health educators have at least a bachelor's degree and work with both individual patients and groups of people in a variety of locations. In medical offices, they educate patients about their diagnoses. On college campuses, they teach students about healthy lifestyle choices. As public health workers, they give out information to the media and the public during an emergency. Think about a past outbreak of an illness like influenza (the flu) in your community. Did you see signs about vaccination clinics or hear advice about hand washing to reduce infections? These were produced by a public health worker.

Health Educators and the Public: Adam

Health educators help people by providing health-related, scientific information. Adam loves science and chose biology as his major in college. He became a biotechnology (bI-oh-tehk-NAH-luh-jee) research scientist and worked to develop new products to prevent and treat disease.

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Over the years, Adam noticed how much he enjoyed explaining new processes to his fellow employees and how frequently he volunteered to develop training programs for other workers. Eventually he realized that he had a strong interest in working with the public. Since that was missing from his research job, Adam transferred to an institute for biotechnology education and became an education specialist. Now he trains science teachers and educates science students about biotechnology and its research methods.

Other health informatics services career paths include medical librarians, illustrators, and historians. Health informatics workers can also be found in the finance or accounting departments of healthcare facilities. These workers, like all of those described in this section, are focused on information. If you love medical language and want to work in healthcare, but touching patients and handling body fluids is not for you, search the health informatics services pathway for your future career.

RECALL YOUR READING

1. Unlike doctors and nurses, who mostly see patients, health informatics workers focus on _____ rather than on direct patient care.
2. Informatics workers are accurate, organized, and alert to maintaining _____.
3. Health informatics workers frequently use computers and must adapt to ongoing changes in _____.
4. Health informatics services professionals work in health information _____, health information _____, or a newer field called health _____.

Complete the *Map Your Reading* graphic organizer for the section you just read.

Teamwork in the Medical Office

Healthcare workers know that they must have top-notch job skills and perform their duties accurately. They may not realize that they also need to be highly skilled at working in a team. The healthcare industry is increasingly using teams of workers to improve healthcare delivery (Figure 2.6).

Figure 2.6 Each member of a medical team has roles and responsibilities that contribute to improved patient care.

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The use of teams helps to improve patient safety, quality of patient care, and even customer service. Teams also reduce the cost of patient care by employing workers with different levels of training. For example, a nursing team that includes a registered nurse, a licensed practical nurse, and a certified nursing assistant is able to care for a larger group of patients than a single registered nurse can. As a healthcare worker, you need to know your roles and responsibilities within a team and understand how to be an effective team member.

Roles and Responsibilities

interdisciplinary
healthcare team
a group of professionals from different health science training backgrounds working in coordination toward a common goal for the patient

Myesha, whom you read about earlier in this chapter, is part of an **interdisciplinary** (ihn-ter-DIH-suh-plih-nair-ee) **healthcare team** in her medical clinic. The team members include doctors, nurses, therapists, medical assistants, insurance representatives, and even the housekeepers she works with in the office. Each member of the team has different skills and knowledge. Myesha knows that she must code patient procedures in a reasonable amount of time so that the clinic will receive payment for the services it has provided. She knows which people are responsible for each part of patient care and whom to ask if the medical records lack the information she needs to do her job.

As part of a diverse interdisciplinary team, Kia—the medical assistant—organizes appointments so that patients do not wait for long periods of time and the doctor does not have to wait for the next patient to arrive. When there is an emergency or a delay, Kia adjusts the schedule and continues to meet the needs of patients. Calming a frustrated patient can be a challenge. As the first person who answers the phone, Kia must quickly assess the level of each caller's need. If every call went directly to the doctor, the doctor's day would be spent on the phone instead of assessing and treating patients. Sometimes Kia calls 911 if there is an emergency, but often she can have a nurse return the patient's call. In spite of many interruptions to her work, Kia is also careful to keep accurate and complete patient records so that the billing process goes smoothly.

You also read about Adam, the education specialist. All of the people on Adam's team are from the same discipline—they are all educators. The team members have similar responsibilities that include developing educational workshops, scheduling groups of students and teachers to attend the workshops, and organizing equipment and supplies for teaching these workshops. When the members of this team meet, they coordinate teaching schedules and evaluate the outcomes of their teaching methods to make improvements. They all benefit from working together.

Knowing your own roles and responsibilities is the first step in becoming an effective team member. You must also know the roles and responsibilities of the other members of your team. The responsibilities of each team member are part of his or her scope of practice, which includes certain tasks he or she is qualified to perform. For example, when Kia directs a phone call to the nurse, she is communicating a patient's need that she is not qualified to meet. By knowing each team member's scope of practice, she is able to choose the correct person to help the patient.

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Effective Teams

Directing information to the correct person is a teamwork-related skill. Skilled team members monitor the activities of other members, know their strengths and weaknesses, and organize tasks with each person's strengths in mind. For example, Kia knows that the doctor on her team is excellent at assessment and diagnosis of a patient but has a hard time remembering names. She is always careful to prompt the doctor's memory by introducing a patient at the beginning of an exam.

When a group of people works closely together, there will always be differences of opinion, which can create conflict within the team. Effective team members are able to handle disagreements without damaging their working relationships. Some people are naturally good at this type of interaction. Most of us, however, learn conflict resolution skills in the same way we learn our medical skills—through training and experience. You will learn about conflict resolution skills in chapter 6.

Members of effective teams remain positive in spite of personal differences. A positive attitude is critical to the success of a team. In addition to knowing the strengths and weaknesses of other members, everyone on the team must know how to fit their different personalities together to create a comfortable work environment. Understanding and respecting the feelings and beliefs of each team member is just as important as performing the duties of your job correctly.

Working in a Team: Adam

When Adam designs a workshop for students, he naturally thinks of creative activities that students will enjoy. Another team member considers the information that must be presented for students to learn a scientific concept. A third team member creates a schedule and determines what lab supplies will need to be ordered. By using the personal strengths of each team member, the team can work efficiently. Team members rely on each other to complete different tasks when preparing for the workshop and are happy to focus on the tasks they enjoy most. A positive attitude toward teamwork and mutual trust among team members make this team successful.

RECALL YOUR READING

1. Healthcare facilities use teams of workers to improve patient _____ and the quality of patient _____ and to reduce _____.
2. Knowing the _____ and _____ of each team member makes a team more effective.
3. Effective team members are skilled at handling _____ without damaging their working relationships.
4. Each team member should be responsible for tasks within his or her own _____.

Complete the *Map Your Reading* graphic organizer for the section you just read.

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Technical Skills in Health Informatics

technical skills
the ability to perform tasks in a specific healthcare discipline or department

Technical skills are the practical functions and tasks that a worker performs in his or her job. For a health informatics worker, being able to write is an **indispensable** technical skill that is highly desirable in the workplace. Since all patient communication and treatment must be documented, writing accurately and clearly is an important part of a job in health informatics services. In fact, healthcare workers in all career pathways need technical writing skills. Written documents connect all of the workers providing care for a patient (Figure 2.7).

Notice the technical writing tasks that each type of healthcare worker performs to create documents in a typical patient experience:

- The *medical assistant* takes a patient's complete medical history.
- The *physician* uses the medical history to determine a possible diagnosis.
- The *medical lab technician* records lab test results.
- The *radiologist* reads the images taken by the *radiologic technician* and sends a written report to the *physician*, who uses it to confirm the diagnosis.
- The patient receives a letter showing the results of the lab tests.
- The *pharmacist* follows a written prescription to provide medication to treat the patient.
- The *physical therapist* writes a therapy plan and sends written reports to tell the *physician* about the patient's progress.

All of these documents become part of the patient's medical record. The health information technician uses the medical record to code the patient's diagnosis and treatment and to send a billing statement to the insurance company. At all of these stages, technical writing skills are important because accurate and clear documents improve patient care.

Letters

As a health informatics worker, you will write **business letters** for a variety of purposes (Figure 2.8). For example, business letters may tell a patient the results of a test or provide consultation reports to

Figure 2.7 Effective Correspondence

Characteristics	Purpose
no unnecessary words	avoids wasting the reader's time
accurate and complete information	avoids mistakes and misunderstandings
professional appearance (uses Block Style Format and Standard English)	makes you and your employer appear competent
logical organization of information	avoids frustrating or confusing the reader

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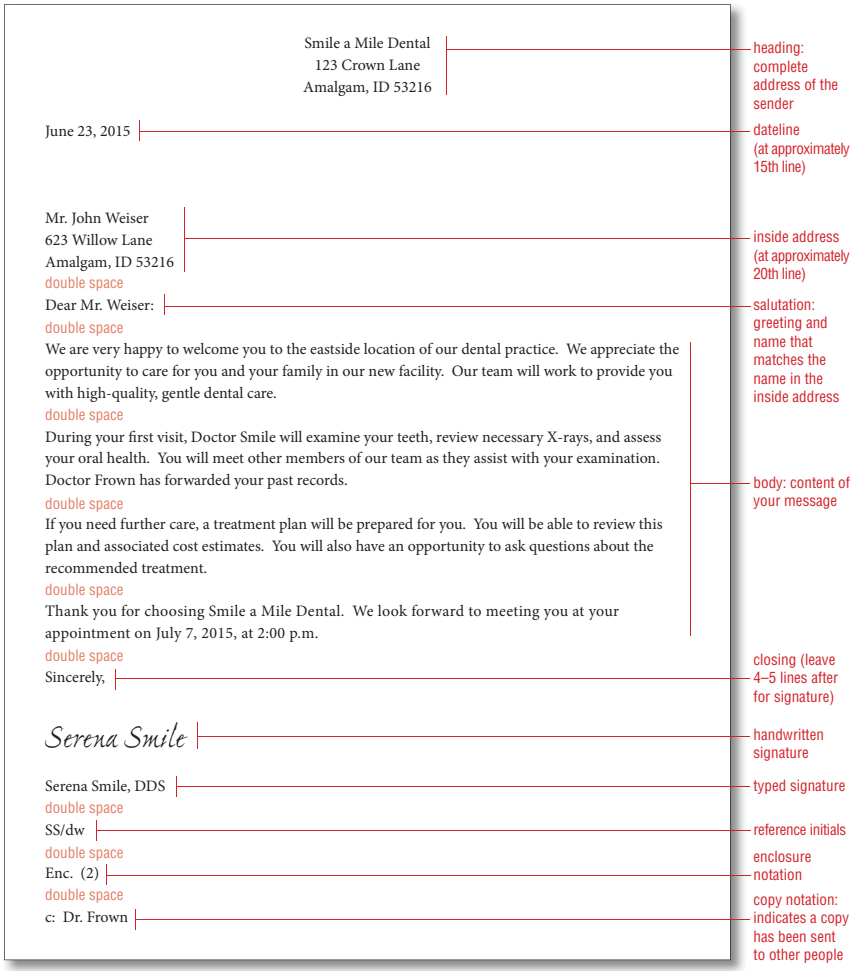

Figure 2.8 A business letter includes specific components, some of which are explained here. The inside address of a letter should consist of the title, name, and complete address of the person to whom you are writing. The closing should always be friendly, but business-like. Never use "thank you" as your closing. Reference initials consist of the uppercase initials of the letter's sender and lowercase initials of the letter's typist. How does the above letter exemplify the guidelines to effective correspondence?

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other healthcare professionals. Business letters may also explain patient treatments to insurance companies or announce changes in schedules and services for your healthcare facility. Regardless of their audience or content, effective business letters follow the same basic guidelines.

Your letters will go to people outside your organization. For this reason, you should choose your words carefully, keep a formal tone, and focus on the purpose of your correspondence, or *written communication*. Provide enough background information to keep your reader informed. Maintain goodwill with your reader by being honest, polite, and prompt in your correspondence.

Memos

Memos, short for **memorandums** (meh-muh-RAN-duhms), are less formal than letters (Figure 2.9). Memos are sent to people within your organization, so you can use a more personal tone in your writing. Your memos serve as a written record of an event or a problem. They may also be used to evaluate your performance. Managers look for correspondence that shows you are solving problems, building relationships, and getting the job done.

Memos start with the word *memo* or *memorandum* at the top of the page. The headings *To*, *From*, *Date*, and *Subject* are followed by the message of the memo. Follow your employer's preferred format for these communications. While readers expect memos to be brief and cover only one topic, you should explain your topic carefully and include all of the necessary details. This is especially important when a memo is used to document the decisions made by a group. Learn to use the guidelines for effective correspondence in all of your written communication.

Forms

Medical records, insurance claims, and business transactions all require you to complete forms. While you will enter information into a computer template for most forms, you may still be transferring handwritten patient information into a registration form (Figure 2.10).

MEMORANDUM

To: Jean Lee, Office Manager
From: Jeff Brown
Date: 06/03/15
Re: Vacation leave

I would like to use vacation time on September 1, 2, and 5 to attend my sister's wedding. Please let me know at your earliest convenience if you can meet this request. I will need to make airline reservations for the trip.
Thank you for your help.

Figure 2.9 Memos are usually short and focus on a particular topic. In what situations might you use a memo instead of a business letter?

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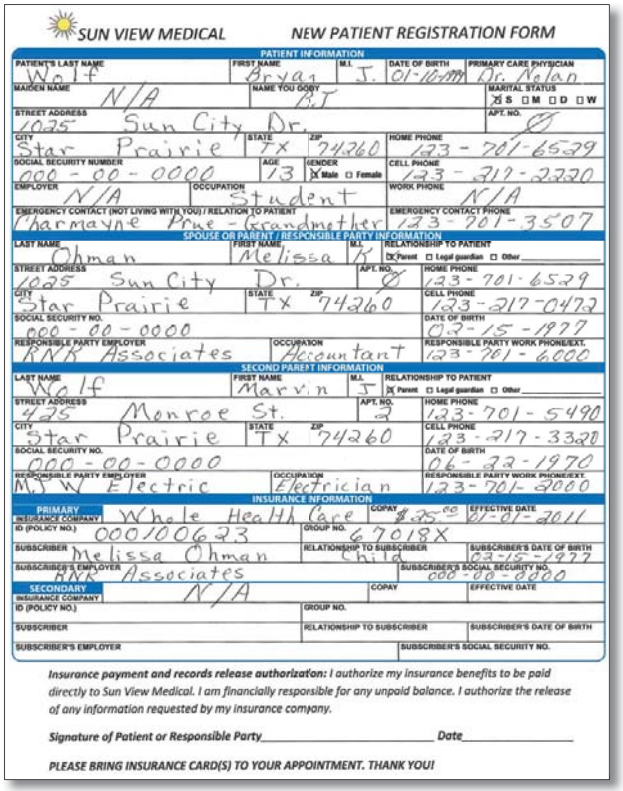

SUN VIEW MEDICAL — NEW PATIENT REGISTRATION FORM

PATIENT INFORMATION

PATIENT'S LAST NAME	FIRST NAME	M.I.	DATE OF BIRTH	PRIMARY CARE PHYSICIAN
Wolf	Bryan	J.	01-16-[illegible]	Dr. Nolan

MAIDEN NAME	NAME YOU GO BY	MARITAL STATUS
N/A	BJ	☒S ☐M ☐D ☐W

STREET ADDRESS	APT. NO.
1025 Sun City Dr.	Ø

CITY	STATE	ZIP	HOME PHONE
Star Prairie	TX	74260	123 - 701 - 6529

SOCIAL SECURITY NUMBER	AGE	GENDER	CELL PHONE
000 - 00 - 0000	13	☒ Male ☐ Female	123 - 217 - 2220

EMPLOYER	OCCUPATION	WORK PHONE
N/A	Student	N/A

EMERGENCY CONTACT (NOT LIVING WITH YOU) / RELATION TO PATIENT	EMERGENCY CONTACT PHONE
Charmayne Prue - Grandmother	123 - 701 - 3507

SPOUSE OR PARENT / RESPONSIBLE PARTY INFORMATION

LAST NAME	FIRST NAME	M.I.	RELATIONSHIP TO PATIENT
Ohman	Melissa	K	☒ Parent ☐ Legal guardian ☐ Other

STREET ADDRESS	APT. NO.	HOME PHONE
1025 Sun City Dr.	Ø	123 - 701 - 6529

CITY	STATE	ZIP	CELL PHONE
Star Prairie	TX	74260	123 - 217 - 0472

SOCIAL SECURITY NO.	DATE OF BIRTH
000 - 00 - 0000	07 - 15 - 1977

RESPONSIBLE PARTY EMPLOYER	OCCUPATION	RESPONSIBLE PARTY WORK PHONE/EXT.
RNR Associates	Accountant	123 - 701 - 6000

SECOND PARENT INFORMATION

LAST NAME	FIRST NAME	M.I.	RELATIONSHIP TO PATIENT
Wolf	Marvin	J	☒ Parent ☐ Legal guardian ☐ Other

STREET ADDRESS	APT. NO.	HOME PHONE
125 Monroe St.	2	123 - 701 - 5490

CITY	STATE	ZIP	CELL PHONE
Star Prairie	TX	74260	123 - 217 - 3320

SOCIAL SECURITY NO.	DATE OF BIRTH
000 - 00 - 0000	06 - 22 - 1970

RESPONSIBLE PARTY EMPLOYER	OCCUPATION	RESPONSIBLE PARTY WORK PHONE/EXT.
M.J.W Electric	Electrician	123 - 701 - 2000

INSURANCE INFORMATION

PRIMARY INSURANCE COMPANY	COPAY	EFFECTIVE DATE
Whole Health Care	$35.00	01-01-2011

ID (POLICY NO.)	GROUP NO.
000100623	67018X

SUBSCRIBER	RELATIONSHIP TO SUBSCRIBER	SUBSCRIBER'S DATE OF BIRTH
Melissa Ohman	Child	07-15-1977

SUBSCRIBER'S EMPLOYER	SUBSCRIBER'S SOCIAL SECURITY NO.
RNR Associates	000-00-2000

SECONDARY INSURANCE COMPANY	COPAY	EFFECTIVE DATE
N/A		

ID (POLICY NO.)	GROUP NO.

SUBSCRIBER	RELATIONSHIP TO SUBSCRIBER	SUBSCRIBER'S DATE OF BIRTH

SUBSCRIBER'S EMPLOYER	SUBSCRIBER'S SOCIAL SECURITY NO.

Insurance payment and records release authorization: *I authorize my insurance benefits to be paid directly to Sun View Medical. I am financially responsible for any unpaid balance. I authorize the release of any information requested by my insurance company.*

Signature of Patient or Responsible Party _____ ***Date*** _____

PLEASE BRING INSURANCE CARD(S) TO YOUR APPOINTMENT. THANK YOU!

Figure 2.10 A registration form contains a patient's personal information, such as contact details, age, and full name. Why is it important to protect patients' personal information?

Accuracy and clarity are the most important considerations when completing forms, but a few guidelines can make this task easier.

- Speak privately with the patient to clarify information given on the form.
- Fill in all the spaces on the form. Use *Ø*, *N/A*, or *None* when a question does not apply to the patient.
- Recognize symbols or abbreviations often used in patient records. Abbreviations for marital status include *S*, *M*, *W*, and *D*, which stand for *single*, *married*, *widowed*, and *divorced*, respectively. "Living and well" is abbreviated as *l and w*. "Died" is abbreviated *d*, followed by the year of death.
- Family history includes the current health status and past conditions or diseases of the patient's parents, grandparents, sisters, and brothers.

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- *Present illness* or *current complaint* requires a clear description of the patient's current signs and symptoms.
- *Responsible party* means the person who will be in charge of payment for the healthcare services the patient receives.

All written forms become part of the patient's medical record. This record communicates information about the patient's medical status to healthcare workers. It is also a legal document that provides evidence of the care the patient has received. In addition, medical records can be used for research, public health initiatives, or patient education. Because they are critical to patient care, these records must be easy to locate, well organized, accurate, and complete, but also brief.

Often called the patient's *chart* or *file*, each medical record contains two types of information—personal and clinical. Personal information, which may be included in a registration form, tells the doctor's office personnel how to contact a patient. It usually includes a photocopy of the patient's insurance card. **Clinical information** begins with the patient's medical history and includes all of the information about his or her health, medical conditions, and treatment (Figure 2.11). The personal and clinical information are separated in a patient's chart.

Remember that protected health information (PHI) must remain confidential. All written files must be protected from unauthorized access. You cannot leave files in areas where others may see them.

When a new patient makes an appointment, a medical clinic or office will often send forms for the patient to complete and bring to the appointment. This is more efficient than having the patient fill out forms while waiting to see the doctor. The patient has time to gather information and think carefully about the questions at home. As a result, the medical office receives a more accurate and complete medical history.

Many medical offices maintain a website where patients can download and print these forms or establish a private account and complete them online. If the office uses electronic health records, all handwritten forms are scanned into the patient's chart, and the paper forms are shredded to protect the privacy of the patient.

In addition to personal information and a medical history, the office needs permission to bill an insurance company. The office also needs permission to share confidential information with any other individual chosen by the patient. The office must give every patient a notice of privacy practices that explains how his or her protected health information is kept confidential and under what circumstances the information can be released to others.

Maintaining Accuracy: Kia

Kia makes sure that patient information is complete and clarifies any handwriting that is difficult to read. Using a private area to consult with patients, or making sure others can't hear the discussion is a legal requirement. Kia double-checks the forms for all required signatures so that bills for service can be sent to the insurance company. Accurate registration avoids future problems.

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SUN VIEW MEDICAL — *MEDICAL HISTORY FORM*
(please print/type)

Last Name | First Name | Middle Name

Date of Birth | Sex/Gender | Country of Birth ( )

Permanent Address | City | State | Zip Code | Telephone ( )

Local Address | City | Zip Code | Preferred Local Telephone

HAVE YOU HAD:	YES	NO		YES	NO		YES	NO
Head Injury with Unconsciousness			Sexually Transmitted Disease			Counseling/Mental Health Treatment		
Asthma			Malaria			Recreational Drug Use		
Recurrent Headaches			Chicken Pox			Tobacco Use		
Seizure Disorder			Scarlet Fever			Alcohol Use		
Hearing Loss			Hay Fever			# times per week		
Recurrent Ear Infections			Rheumatic Fever			amount per session		
Visual Problems (other than glasses)			High Cholesterol			Exercise: # times per week		
Thyroid Problem			Hepatitis A, B, or C			Operations / Dates:		
Heart Problem/Murmur			Diabetes					
Kidney/Urinary Tract Problem			High Blood Pressure			Chronic Health Problems:		
Gynecology Problem(s)			Digestive Tract Problem					
Recent Weight Change			Cancer/Tumor/Cyst					
Bleeding/Blood Disorder			Spinal Cord Disruption			Alternative Medicine Practices:		
Tuberculosis			Eating Disorder					

ALLERGIES to Drugs/Medications: (write NONE if none)	OTHER ALLERGIES (i.e., environmental): (write NONE if none)	Routine Medications Taken: (write NONE if none)

Family Health History (List father, mother, siblings, spouse/partner and children)

Family Member	Age	If no longer living, cause of death and age of death

HAS ANY FAMILY MEMBER EVER HAD: (parent, sibling, or grandparent)

	YES	NO	Relationship		YES	NO	Relationship
Tuberculosis				Asthma			
Drug/Alchohol Use				Thyroid Disease			
Diabetes				Seizure Disorder			
Kidney Disease				Blood Disorder			
Heart Disease				Cancer			
High Blood Pressure				Stroke			
Arthritis				Obesity			

OTHER CONCERNS/INFORMATION:

Figure 2.11 A medical history form contains clinical information, such as a patient's past diagnoses and treatments. Why is it important to protect patients' clinical information?

Filing

While most medical records are stored electronically these days, workers may still need to access paper records that are maintained as a back-up storage system. Patient records must be easy to store and find so that patient care and treatment can run smoothly on a day-to-day basis. Proper filing of records can also help avoid potential lawsuits by keeping all necessary information available for review. Medical records are stored either alphabetically or by number (numerically).

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Figure 2.12 Color-coding is one effective method of organizing files.

The alphabetic system files records in order according to the patient's last name. File tabs or folders with a different color for each letter group—for example, A to F is green, G to L is yellow—can be used to quickly spot files that are out of order (Figure 2.12). In this system, files are alphabetized by the patient's last name and then by the first name when two patients have the same last name. Electronic records systems save time by automatically alphabetizing charts for storage. The alphabetical system can cause confusion when two patients have the same name. In such cases, the correct chart can be retrieved by using the patient's name and by checking the date of birth and other personal information (Figure 2.13).

Numeric filing systems give each patient a unique number. Most systems use six digits and charts are filed in numerical order. This avoids the problem of name duplication and helps to protect patient privacy. It is important to write numbers clearly, or type them onto labels, so that charts are not misfiled. A poorly written 7 can easily look like a 1. This system also requires a master index of patient names and numbers so you can find the correct chart when a patient comes in for an appointment.

Healthcare facilities choose the system of filing that best meets their unique needs. Systems other than alphabetic or numeric include geographic, chronologic, and by subject. A geographic system organizes files by location, such as state or city. This works well for a mobile clinic whose patients live in several different areas. Chronologic (krah-nuh-LAH-jik) filing is organized according to dates, such as years or months. Research studies often use this system to record their progress. Filing by subject, such as personnel files, inventory records, or accounts payable, may be used for storing information other than patient charts.

Figure 2.13 Alphabetic Filing Tips

Tip	Patient Name	File As
File by last name, then first name, then middle initial.	Jon C. Byers	Byers, Jon C.
Hyphenated names should be treated as one word.	Gabriel Garcia-Marquez	Garcia-Marquez, Gabriel
Abbreviated parts of names are filed as if spelled out.	Susan St. Cyr	Saint Cyr, Susan
Put professional titles and initials at the end of the name. They are not part of the system.	Dr. Mai Vang, MD	Vang, Mai, MD
Use birth dates for patients with identical names. Usually, the most recent date is first.	Nicole M. Grimm DOB: 10/22/1951 Nicole M. Grimm DOB: 03/15/1979	1. Grimm, Nicole M. 03/15/1979 2. Grimm, Nicole M. 10/22/1951

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Scheduling

An efficient schedule avoids long wait times for patients and maintains a consistent flow of appointments for physicians (Figure 2.14). Effective scheduling is a skill that requires practice and experience. Most clinics and offices use a computerized scheduling program, but paper and electronic scheduling systems both use the same guidelines.

Each page of the schedule is divided into segments of time, often 15 minutes. Each column can be used for a different physician, dentist, or other healthcare provider. There may be a separate column for scheduling lab appointments. The page must have enough space to list the patient's name, reason for appointment, and contact phone number.

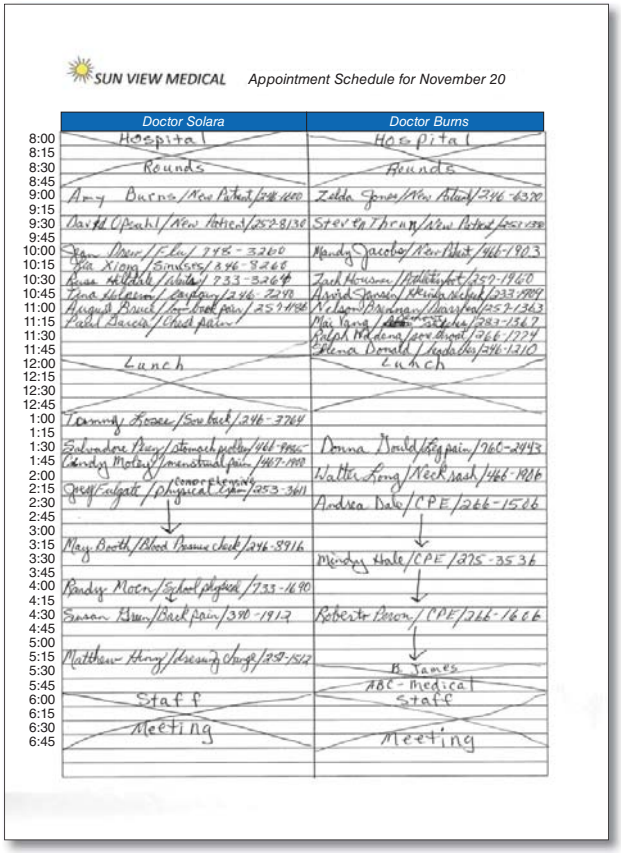

Figure 2.14 This patient appointment book notes when a healthcare worker should expect his or her patients.

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The process of scheduling begins with blocking off times when providers are not seeing patients. Examples of blocked times include lunchtime, attendance at a conference, or time spent seeing patients in the hospital. The standard time allowed for each type of appointment should be determined ahead of time. Many appointments are 15 minutes in length, but a physical exam may last one hour. Leave a few open appointment times in the morning and in the afternoon. This allows for emergencies and for catch-up time if the scheduled appointments run late.

When scheduling a patient's appointment over the phone, you should learn the reason for the appointment and the patient's full name (Figure 2.15). Ask for the spelling if you are unsure. You should also list the patient's current phone number. Ask the patient for his or her preferred appointment time. It may take a few attempts to find an available appointment at a time that is convenient for the patient. Once you have set an appointment, repeat the day, date, and time for the patient before ending your call. If the appointment is made while the patient is in the clinic, provide a reminder card with these details as well as the name of the physician.

If a patient calls to cancel an appointment, remain polite and positive and ask why the appointment needs to be canceled. Record the cancellation in the schedule and list the cancellation and reason in the patient's chart. Offer to reschedule the appointment. If the patient needs continuing care, you may need to call back to remind him or her to reschedule.

If your office needs to cancel appointments because of an emergency or because a doctor is ill, you don't need to give the specific reason. Contact the patient as soon as you know about the schedule change, and try to reschedule while you have the patient on the phone.

Computerized scheduling systems have some advantages over handwritten schedules (Figure 2.16). With these systems, you can easily block certain times, such as lunch, for several days with a single entry. A computerized system will also search for the next available appointment times for you or show you the schedule for a date you have

Figure 2.15 Accuracy is important when scheduling appointments over the phone. Be sure to verify the patient's name and reason for coming in so that your appointment book is accurate.

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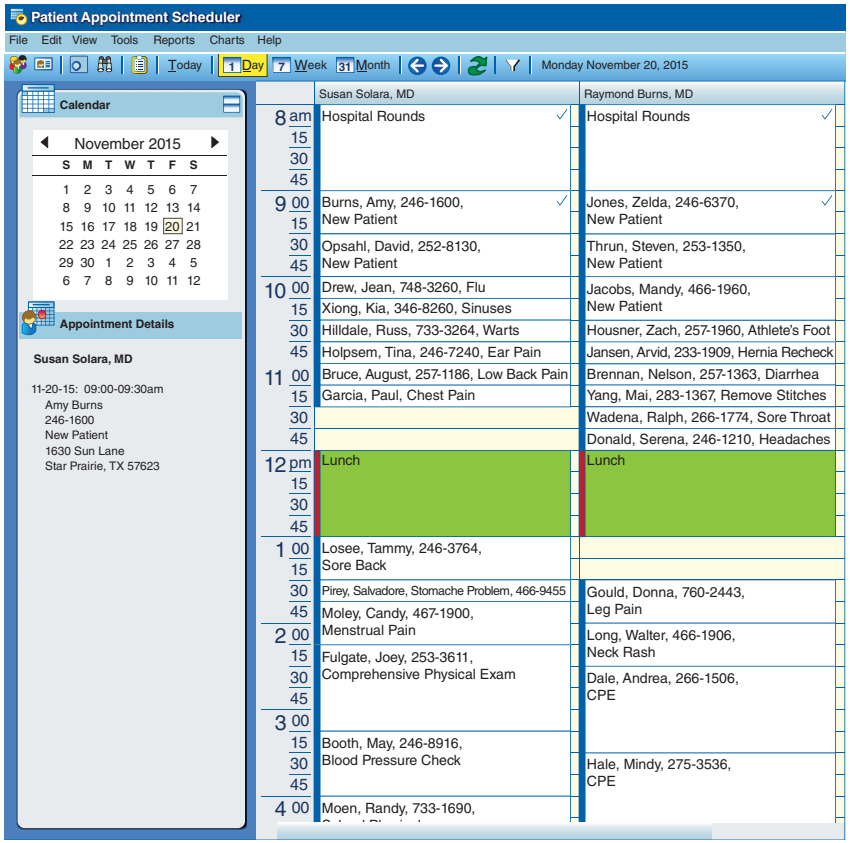

Figure 2.16 A patient appointment book may also be computerized. What do you think are the advantages of computerized patient appointment books? Can you think of any disadvantages?

entered. It is easy to print the day's schedule for each provider with these computerized systems.

Some offices may even use online scheduling systems. These allow patients to view available times and book their appointments online. Doctors can access online schedules from any computer at any time.

To make an appointment, a patient must set up an account with a secure user name and password. The patient selects the clinic location, his or her specific doctor, and the type of appointment needed. The software program calculates the amount of time required for the appointment and

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displays available dates and times. Once the patient selects a time, the appointment is added to the doctor's schedule, and the screen shows the patient pre-visit instructions, if applicable.

Many patients appreciate the opportunity to schedule an appointment even when the clinic is closed. However, some patients report frustration with online systems when they spend time accessing the website only to learn that the type of appointment they need must still be scheduled by phone.

Complete the *Map Your Reading* graphic organizer for the section you just read.

RECALL YOUR READING

1. _____ is an important technical skill for health informatics workers.
2. Workers use technical writing skills to compose business letters and complete _____ records, but also for less formal writing like _____ sent to coworkers.
3. Medical records contain both _____ and _____ information about a particular patient.
4. An efficient _____ avoids long wait times for patients and maintains a consistent flow of appointments for doctors.

Employability Skills for Healthcare Workers

employability skills
skills related to choosing a career, acquiring and keeping a job, changing jobs, and advancing in a career

A person needs **employability skills** to secure and keep a job. Employability skills include completing job applications and interviews, but also professionalism, trustworthiness, a good attitude, and being a team player. These skills are important when preparing for a job, as well as getting and keeping a job. Employability skills can help you find work that is satisfying and provides a sense of accomplishment.

The first step in finding a satisfying and rewarding career is to learn about yourself. Once you know more about yourself, you can analyze career opportunities and find those that fit you personally. Friends, teachers, counselors, and family members may give you career advice with the best of intentions, but it will only be good advice if the suggested occupation matches your personality and work preferences.

Career Assessments

Career assessments are tools such as questionnaires and surveys that you can use to find careers that will match your individual needs. If you completed a career cluster quiz as suggested in chapter 1, you know your top career clusters. Even if health science was not one of your top clusters, you can find ways to use your chosen career in the healthcare field. For example, computer scientists, public relations personnel, and accountants all come from different career clusters, yet all of these people can work in healthcare facilities.

Career clusters are organized according to different jobs within an industry. Since the clusters are not organized according to work interests, you will want to narrow your career search based on your own interests. By identifying your work interests, you can determine your career personality.

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Career psychologist John Holland identified six basic personality types through many years of work and research in the field of psychology. Review the chart in Figure 2.17 to identify your top three personality types. Then, consider careers that match those personality types. Matching your personality to your career can lead to job satisfaction and success.

As you investigate careers that interest you, look for those that match your work preferences as well as your personality type. Do you prefer to work indoors or outdoors? Are you willing to work only on weekdays and only during the daytime? How long do you want to attend school? How much income do you want to earn? These preferences regarding the practical parts of a career are also important to your job satisfaction. Compare each of the careers you are interested in with your list of personal preferences as you develop your career plan.

Career Portfolios

career portfolio
a written record of career planning and preparation

Your **career portfolio** records the work you have done to prepare for a career or to get a specific job. You can use the contents of your portfolio to plan your high school course schedule, apply to college programs, complete scholarship applications, or apply for a specific job. Preserving your portfolio and keeping it up-to-date makes these tasks easier because you have all the information you need in one organized location.

Figure 2.17 Health Science Careers by Personality Type

John Holland Personality Type	Characteristic	Health Science Career Examples
realistic doer	likes mechanical hands-on activities	central supply worker electrocardiograph technician surgeon
investigative thinker	is an analytical problem solver	medical laboratory technician nurse practitioner psychologist
social helper	is cooperative and people-oriented	certified nursing assistant health science educator physical therapist
enterprising persuader	is a competitive leader	pharmaceutical sales representative healthcare administrator dean of nursing at a college or university
conventional organizer	pays attention to detail	dental assistant medical coding specialist operating room nurse
artistic creator	likes creative activities	medical photographer music therapist community health nurse

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Figure 2.18
Keep your career portfolio on hand when applying for jobs. Your portfolio should contain all the information you might need for a job application.

A quality portfolio highlights your knowledge, experiences, skills, and abilities (Figure 2.18). Your portfolio should contain the following information:

- an introductory letter or essay
- your résumé (REH-zuh-may)
- letters of recommendation
- records of paid and volunteer work experiences
- samples of projects and presentations that illustrate your skills
- health certifications you have earned
- a list of school and community activities in which you have participated
- scholastic and professional awards you have received

An introductory letter or essay reflects your personality, passions, and goals for your career and your life. This letter should answer some basic questions about you, your life, and your career goals. What experiences and interests have led you to this career? Why is this work important to you, and what do you think you can contribute to this career? What goals have you set for yourself in this career? Include an example of one of your positive characteristics. You may use information from this introductory letter as you fill out job applications and prepare for interviews. This is not a letter you send out to potential employers. This letter exists to help you consider your priorities as you begin your career journey.

A **résumé** is a short, one-page document that contains your accomplishments and experiences and explains how these relate to a job in which you are interested. A computer template can make it easy to create and revise your résumé. You should take care to adjust the document to fit the requirements of a specific job. List your name and contact information at the top of your résumé. Include your educational background, employment history, extracurricular activities, employment certifications, and special awards or honors. Keep a separate list of references to include when specifically requested.

Your résumé must be easy to read, so use the same font throughout the document. Use phrases separated into bullet points rather than complete sentences. Since you may be applying online, format your résumé so that it can be posted easily to a website; sent by e-mail; or printed, mailed, and then scanned by a potential employer (Figure 2.19).

You should also keep the results of your career assessments in your portfolio so you can review them when considering a new job. These results will help you determine if a job is a good fit for you. Your portfolio is a tool you will use throughout your work life.

HOSA Connections

HOSA–Future Health Professionals, formerly called *Health Occupations Students of America*, is a career and technical student organization. Through local, state, and national activities, students can develop career and leadership skills, learn more about healthcare careers and career training programs, and participate in service-learning and other volunteer opportunities.

HOSA–Future Health Professionals
a career and technical student organization for future healthcare workers

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Figure 2.19 Tips for Readable Electronic Résumés

Recommendation	Reason
use a plain font like Arial	scanners can't read fancy fonts
avoid boldface, italics, and underlining	scanners don't interpret these correctly
use 10- to 12-point font size	scanners can't read small fonts
use one column lined up on the left margin	scanners will put multiple columns in the wrong order
use capital letters to show headings	scanners recognize capital letters
use the space bar instead of tab keys	scanners have trouble reading tabs correctly
use wide margins with lines of 60–65 characters	scanners can read 65 characters and won't chop off any of your words

HOSA is a professional development organization designed for health science students. Being a member of HOSA will benefit you and your career development, and participating in HOSA's competitive events can strengthen both your general career skills and your health informatics skills. Look at the *Competitive Events* section of the HOSA website for descriptions of the various events (Figure 2.20).

RECALL YOUR READING

1. Examples of _____ include questionnaires and surveys.
2. A _____ documents the work you have done to prepare for a career or specific job.
3. A one-page document that contains your accomplishments and experiences and explains how they relate to a specific job is called a _____.
4. HOSA is a _____ and _____ student organization designed for developing the career and leadership skills of health science students.

Complete the *Map Your Reading* graphic organizer for the section you just read.

Figure 2.20 HOSA Competitive Events

Event Name	Event Description
Medical Spelling	written test and "spelling bee" competition
Medical Terminology	written test
Clinical Specialty	presentation of a career portfolio about and demonstration of a skill common to a chosen health career
Health Career Display	tabletop display featuring one healthcare career
Public Health	presentation about a public health concern
Health Education	student participation in planning and teaching a health-related concept
Extemporaneous Writing	written essay about a health-related topic or HOSA

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Chapter 2 Review

SUMMARY

- Health informatics careers focus on information rather than hands-on patient care.
- Health informatics workers must be accurate, organized, and able to protect the privacy of patient information.
- Those working in health informatics services frequently use computers and must adapt to ongoing changes in technology.
- Health information technicians maintain patient medical records and assist with patient scheduling.
- Health informatics services professionals include educators, computer specialists, and data analysts.
- Health informatics workers are part of the healthcare team. Knowing the roles and responsibilities of each team member and maintaining a positive attitude are critical to the success of the team.
- Health informatics workers must be skilled technical writers who can compose letters, establish and organize medical records, and schedule patient appointments.
- Career assessments and career portfolios document your career research and preparation. They are useful tools for completing college, applying for scholarships, and filling out job applications.
- HOSA is the career and technical student organization for health science students. HOSA activities promote the development of career and leadership skills.

MAXIMIZE YOUR PROFESSIONAL VOCABULARY

Build vocabulary with e-flash cards and games

Listed below are the essential, yellow-highlighted terms and the additional professional vocabulary terms that you encountered in this chapter. Complete the activities that follow the list to make all of these terms part of your everyday professional vocabulary.

business letters
career assessments
career portfolio
clinical information
competent
confidentiality
dictation
employability skills
family medical history
health informatics (HI)
health informatics services
health information management (HIM)
health information technology (HIT)
HOSA–Future Health Professionals
indispensable
interdisciplinary healthcare team
internship
medical coding
medical history
memorandum
personal identifying information
personal traits
professional look
résumé
technical skills
telemedicine
transcriptionist

VOCABULARY DEVELOPMENT

1. **Dice Roll Review.** Number each professional vocabulary term listed above from one to six. Continue numbering until all terms have been assigned a number from one to six. Form groups of four to six students. One student starts as the "caller." Each player takes a turn to roll the die. The caller asks for the definition of any term matching the number rolled. A point is awarded for each correct response. At the end of the first round, a new student has the caller job and play continues.
2. **Terms Tabloid.** Write a fictional story about healthcare using at least 10 professional vocabulary terms. Replace the terms with blank spaces. Trade papers with another student and try to fill in the blanks in each other's stories. Have you used the vocabulary terms correctly?

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Matching. Match each essential term from this chapter with the correct definition below by writing the letter of the definition next to the number of the essential term on a separate sheet of paper.

3. technical skills
4. internship
5. confidentiality
6. personal traits
7. career portfolio
8. interdisciplinary healthcare team
9. medical coding
10. professional look
11. employability skills
12. health informatics services
13. HOSA

a. the act of assigning numbers to descriptions of a patient's diseases, injuries, and treatments according to established codes
b. an individual's unique combination of qualities and characteristics
c. a written record of career planning and preparation
d. the standards of appearance normally expected of a qualified person in a work environment
e. a career and technical student organization for future healthcare workers
f. the legally protected right of patients to have their personal and medical information kept private
g. practical work or training experience that allows students to apply what they have learned in class
h. a group of professionals from different health science training backgrounds working in coordination toward a common goal for the patient
i. career pathway that involves methods, devices, and resources used to acquire, store, retrieve, and work with healthcare and biomedical information
j. skills related to choosing a career, acquiring and keeping a job, changing jobs, and advancing in a career
k. the ability to perform tasks in a specific healthcare discipline or department

REFLECT ON YOUR READING

14. Review the bubble diagram you created in the *Connect with Your Reading* activity. Pick one health informatics worker from the bubble diagram you created at the beginning of this chapter. Revise your diagram, if needed, to include a health informatics worker. Was this person a competent health informatics worker, or not? Use evidence from your reading to support your conclusion.

My Healthcare Experience

BUILD CORE SKILLS

15. **Writing.** Suppose that you are the administrator of a hospital, clinic, or other healthcare facility. Write a paragraph describing your ideal health informatics worker. What are the personal traits, characteristics, and interests that would lead someone to succeed in a health informatics services career?
16. **Critical Thinking.** Describe a situation in a medical office in which it is important for a health informatics worker to know not only his or her own roles and responsibilities as a team member, but also the roles and responsibilities of other team members. (Hint: Think about the scope of practice for healthcare workers.)
17. **Problem Solving.** Suppose that you have a summer internship organizing the filing system for your professor's research project. Describe the type of filing system you will use and explain the reasons for your choice.
18. **Speaking and Listening.** Suppose that you are a college student studying health information management. You are speaking at your former high school and want to encourage the high school students to join HOSA. What will you say to explain the benefits of membership in HOSA?
19. **Reading.** Suppose that you have recently graduated from a medical coding training program. You know that employers like to hire

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credentialed workers, so you decide to seek certification as a certified coding associate (CCA). Your program instructor mentioned that the American Health Information Management Association (AHIMA) offers certification testing and credentials. Visit the AHIMA website to find answers to the following questions about the certification process:

a. Besides completion of a training program, what other requirement is necessary to be eligible for certification?
b. How much does the exam cost, and how long is the exam?
c. The exam will cover coding and reimbursement procedures. What are the other four topics included in the exam?
d. Once certified, how will you keep your certification current?

ACTIVATE YOUR LEARNING

20. Prepare a sample business letter using the topic described here. Follow the guidelines for effective correspondence and correct formatting.

    Letter topic: Introduce patients to Dr. James Brace, who will be joining the Smile a Mile dental practice. Dr. Brace's specialty is orthodontics. Let patients know what services he will provide and how this will improve the dental practice. Include the date on which he will begin seeing patients, and explain how patients can schedule an appointment. This letter is written by you on behalf of Dr. Serena Smile.

21. Prepare a sample memorandum using the topic described here. Follow the guidelines for effective correspondence and use the correct format.

    Memorandum topic: Announce to the staff that Smile a Mile employees will have holidays on both July 4 and July 5 this year. This memorandum comes from you as the office manager.

22. Create a new patient file using the patient data provided here. Select a name for your patient. For the patient's medical history, create several more family members. While Rita (patient's mother) has diabetes, the rest of the family is pretty healthy. Include a registration form and a medical history form based on Figures 2.10 and 2.11. Label your file folder with your patient's name. File your folder in a class file cabinet with the patient records created by your fellow class members.

    Your patient [Insert chosen name]

    - Your patient is a 17-year-old junior in high school. He or she recently moved to Star Prairie and is seeing a new doctor today to get a physical to play hockey.
    - The patient's mother, Rita, works as a preschool teacher at Playtime Child Care Center at 14 Ruby Lane in Star Prairie, TX 74260.
    - Rita has rented a condo at 400 S. Main Street. The phone number is 123-701-0197. Rita provided an insurance card (see below).
    - The patient experienced congestion during the months of March and April. The patient wishes his or her acne would clear up, and Rita is worried about hockey season because the patient suffered a concussion during a game last year.

23. Complete a patient schedule for Dr. Solera using 15-minute increments between 8:00 a.m. and 5:00 p.m. Dr. Solera will be seeing patients at the hospital until 9:00 a.m. and the time between 12:30 and 1:30 p.m. will be Dr. Solera's lunchtime. Enter the following appointments with this information in mind. Remember to leave room for emergency appointments and provide enough time for each type of appointment. Use Figure 2.14 to help you estimate appropriate times for each type of appointment.

    Jane Brooks—school physical

    Lamar Smith—back pain

    Ali Sims—complete physical exam

    Jim Sykes—skin rash

    Barb Engles—insect bite

    Martel Brown—fever and flu symptoms

    Gina Downs—pelvic pain

    Robert Alquist—new patient

    Josh Oines—remove stitches

    Noah Collins—sports physical

    Betty Franks—knee pain

    Hannah Jacobs—sore throat

    Kerry Long—blood pressure check

    Marquis Linton—complete physical exam

    Angie Olson—back pain

    Quinton Zelman—new patient

    Review the section on patient scheduling. Check your schedule and add any information you may have missed. What factor makes actual clinic scheduling more difficult than the schedule you created?

    Angie Olson has called to cancel her appointment. Make the necessary notations in your schedule.

DC Health Plan

Group number 06172 Member number 03654

Member name: Rita James 01

(Your fictitious name) 02

1600 Allen Blvd Washington, DC 65432

Claims questions: 1-800-789-6756

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THINK AND ACT LIKE A HEALTHCARE WORKER

24. Liam graduated from college with a degree in biology and will start medical school in the fall. He has been working as a personal care assistant in the internal medicine department at a medical clinic during the summer. One of his patients requires an ear cleaning. Liam has never done this procedure. He asks Jesse, a fellow personal care assistant, to do the ear cleaning procedure. Jesse, who has been trained and has performed many ear cleanings, completes the procedure while Liam observes. Review the professional vocabulary list for this chapter. Select two terms that relate to this scenario and explain how they apply.

GO TO THE SOURCE

25. Do some research on the Internet to learn more about careers in health informatics services. Select two careers of interest to you and complete a career profile page for each career. Use at least one site that ends in .gov and one site that ends in .org. Record the following information for each career you choose:
    - name of career
    - tasks involved in this career
    - personal traits and abilities needed for success in this career
    - educational requirements—how many years of schooling, degrees required
    - type of credential needed and how it is obtained
    - work conditions—what types of facilities, times of day, how many hours, and so on
    - wages and benefits
    - job outlook for the future
    - list the websites you accessed for your search

DEVELOP YOUR HEALTH SCIENCE CAREER PORTFOLIO

26. Create a résumé and introductory letter for your career portfolio. Follow the guidelines described in the text. Then ask for feedback on these documents from someone who knows you well, and who has good writing skills, such as an English or business education teacher. Revise your work according to their feedback. Place these items in your career portfolio.
27. Review the personality types chart in Figure 2.17. Which two types are most like you? Search the O*NET website for the two careers you researched in the *Go to the Source* activity. Do the interest types listed for these careers match your selected personality types? What conclusions can you draw based on your findings?
28. Research HOSA competitive events listed in this chapter. Use the HOSA website for this activity. Select and note your top choice event. List the reasons for your choice.

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