

Registered Nurses

(O*NET 29-1111.00)

Significant Points

- The largest health care occupation, with more than 2 million jobs.
- One of the 10 occupations projected to have the largest numbers of new jobs.
- Job opportunities are expected to be very good.
- Earnings are above average, particularly for advanced practice nurses, who have additional education or training.

Nature of the Work

Registered nurses (RNs) work to promote health, prevent disease, and help patients cope with illness. They are advocates and health educators for patients, families, and communities. When providing direct patient care, they observe, assess, and record symptoms, reactions, and progress; assist physicians during treatments and examinations; administer medications; and assist in convalescence and rehabilitation. RNs also develop and manage nursing care plans; instruct patients and their families in proper care; and help individuals and groups take steps to improve or maintain their health. While State laws govern the tasks that RNs may perform, it is usually the work setting that determines their daily job duties.

Hospital nurses form the largest group of nurses. Most are staff nurses, who provide bedside nursing care and carry out medical regimens. They also may supervise licensed practical nurses and nursing aides. Hospital nurses usually are assigned to one area, such as surgery, maternity, pediatrics, emergency room, intensive care, or treatment of cancer patients. Some may rotate among departments.

Office nurses care for outpatients in physicians' offices, clinics, surgicenters, and emergency medical centers. They prepare patients for and assist with examinations, administer injections and medications, dress wounds and incisions, assist with minor surgery, and maintain records. Some also perform routine laboratory and office work.

Nursing home nurses manage nursing care for residents with conditions ranging from a fracture to Alzheimer's disease. Although they often spend much of their time on administrative and supervisory tasks, RNs also assess residents' health condition, develop treatment plans, supervise licensed practical nurses and nursing aides, and perform difficult procedures such as starting intravenous fluids. They also work in specialty-care departments, such as long-term rehabilitation units for patients with strokes and head-injuries.

Home health nurses provide periodic services to patients at home. After assessing patients' home environments, they care for and instruct patients and their families. Home health nurses care for a broad range of patients, such as those recovering from illnesses and accidents, cancer, and childbirth. They must be able to work independently, and may supervise home health aides.

Public health nurses work in government and private agencies and clinics, schools, retirement communities, and other community settings. They focus on populations, working with individuals, groups, and families to improve the overall health of communities. They also work as partners with communities to plan and implement programs. Public health nurses instruct individuals, families, and other groups regarding health issues, disease prevention, nutrition, and childcare. They arrange for immunizations,

blood pressure testing, and other health screening. These nurses also work with community leaders, teachers, parents, and physicians in community health education.

Occupational health or industrial nurses provide nursing care at worksites to employees, customers, and others with minor injuries and illnesses. They provide emergency care, prepare accident reports, and arrange for further care if necessary. They also offer health counseling, assist with health examinations and inoculations, and assess work environments to identify potential health or safety problems.

Head nurses or nurse supervisors direct nursing activities. They plan work schedules and assign duties to nurses and aides, provide or arrange for training, and visit patients to observe nurses and to ensure the proper delivery of care. They also may see that records are maintained and equipment and supplies are ordered.

At the advanced level, *nurse practitioners* provide basic primary healthcare. They diagnose and treat common acute illnesses and injuries. Nurse practitioners also can prescribe medications—but certification and licensing requirements vary by State. Other advanced practice nurses include *clinical nurse specialists*, *certified registered nurse anesthetists*, and *certified nurse-midwives*. Advanced practice nurses must meet higher educational and clinical practice requirements beyond the basic nursing education and licensing required of all RNs.



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Working Conditions

Most nurses work in well-lighted, comfortable healthcare facilities. Home health and public health nurses travel to patients' homes, schools, community centers, and other sites. Nurses may spend considerable time walking and standing. They need emotional stability to cope with human suffering, emergencies, and other stresses. Patients in hospitals and nursing homes require 24-hour care; consequently, nurses in these institutions may work nights, weekends, and holidays. RNs also may be on-call—available to work on short notice. Office, occupational health, and public health nurses are more likely to work regular business hours. Almost 1 in 10 RNs held more than one job in 2000.

Nursing has its hazards, especially in hospitals, nursing homes, and clinics where nurses may care for individuals with infectious diseases. Nurses must observe rigid guidelines to guard against disease and other dangers, such as those posed by radiation, chemicals used for sterilization of instruments, and anesthetics. In addition, they are vulnerable to back injury when moving patients, shocks from electrical equipment, and hazards posed by compressed gases.

Employment

As the largest healthcare occupation, registered nurses held about 2.2 million jobs in 2000. About 3 out of 5 jobs were in hospitals, in inpatient and outpatient departments. Others were mostly in offices and clinics of physicians and other health practitioners, home healthcare agencies, nursing homes, temporary help agencies, schools, and government agencies. The remainder worked in residential care facilities, social service agencies, religious organizations, research facilities, management and public relations firms, insurance agencies, and private households. About 1 out of 4 RNs worked part time.

Training, Other Qualifications, and Advancement

In all States and the District of Columbia, students must graduate from an approved nursing program and pass a national licensing examination to obtain a nursing license. Nurses may be licensed in more than one State, either by examination, by endorsement of a license issued by another State, or through a multi-State licensing agreement. All States require periodic license renewal, which may involve continuing education.

There are three major educational paths to registered nursing: associate degree in nursing (A.D.N.), bachelor of science degree in nursing (B.S.N.), and diploma. A.D.N. programs, offered by community and junior colleges, take about 2 to 3 years. About half of the 1,700 RN programs in 2000 were at the A.D.N. level. B.S.N. programs, offered by colleges and universities, take 4 or 5 years. More than one-third of all programs in 2000 offered degrees at the bachelor's level. Diploma programs, administered in hospitals, last 2 to 3 years. Only a small number of programs offer diploma-level degrees. Generally, licensed graduates of any of the three program types qualify for entry-level positions as staff nurses.

Many A.D.N. and diploma-educated nurses later enter bachelor's programs to prepare for a broader scope of nursing practice. They can often find a staff nurse position and then take advantage of tuition reimbursement programs to work toward a B.S.N.

Individuals considering nursing should carefully weigh the pros and cons of enrolling in a B.S.N. program because, if they do so, their advancement opportunities usually are broader. In fact, some career paths are open only to nurses with bachelor's or advanced degrees. A bachelor's degree is often necessary for administrative positions, and it is a prerequisite for admission to graduate

nursing programs in research, consulting, teaching, or a clinical specialization.

Nursing education includes classroom instruction and supervised clinical experience in hospitals and other health facilities. Students take courses in anatomy, physiology, microbiology, chemistry, nutrition, psychology and other behavioral sciences, and nursing. Coursework also includes the liberal arts.

Supervised clinical experience is provided in hospital departments such as pediatrics, psychiatry, maternity, and surgery. A growing number of programs include clinical experience in nursing homes, public health departments, home health agencies, and ambulatory clinics.

Nurses should be caring and sympathetic. They must be able to accept responsibility, direct or supervise others, follow orders precisely, and determine when consultation is required.

Experience and good performance can lead to promotion to more responsible positions. Nurses can advance, in management, to assistant head nurse or head nurse. From there, they can advance to assistant director, director, and vice president. Increasingly, management-level nursing positions require a graduate degree in nursing or health services administration. They also require leadership, negotiation skills, and good judgment. Graduate programs preparing executive-level nurses usually last 1 to 2 years.

Within patient care, nurses can advance to clinical nurse specialist, nurse practitioner, certified nurse-midwife, or certified registered nurse anesthetist. These positions require 1 or 2 years of graduate education, leading to a master's degree or, in some instances, to a certificate.

Some nurses move into the business side of healthcare. Their nursing expertise and experience on a healthcare team equip them to manage ambulatory, acute, home health, and chronic care services. Healthcare corporations employ nurses for health planning and development, marketing, and quality assurance. Other nurses work as college and university faculty or do research.

Job Outlook

Job opportunities for RNs are expected to be very good. Employment of registered nurses is expected to grow faster than the average for all occupations through 2010, and because the occupation is very large, many new jobs will result. Thousands of job openings also will result from the need to replace experienced nurses who leave the occupation, especially as the median age of the registered nurse population continues to rise.

Some States report current and projected shortages of RNs, primarily due to an aging RN workforce and recent declines in nursing school enrollments. Imbalances between the supply of and demand for qualified workers should spur efforts to attract and retain qualified RNs. For example, employers may restructure workloads, improve compensation and working conditions, and subsidize training or continuing education.

Faster than average growth will be driven by technological advances in patient care, which permit a greater number of medical problems to be treated, and an increasing emphasis on preventive care. In addition, the number of older people, who are much more likely than younger people to need nursing care, is projected to grow rapidly.

Employment in hospitals, the largest sector, is expected to grow more slowly than in other healthcare sectors. While the intensity of nursing care is likely to increase, requiring more nurses per patient, the number of inpatients (those who remain in the hospital for more than 24 hours) is not likely to increase much. Patients are being discharged earlier and more procedures are being done on an outpatient basis, both in and outside hospitals. However, rapid growth

is expected in hospital outpatient facilities, such as those providing same-day surgery, rehabilitation, and chemotherapy.

Employment in home healthcare is expected to grow rapidly. This is in response to the growing number of older persons with functional disabilities, consumer preference for care in the home, and technological advances that make it possible to bring increasingly complex treatments into the home. The type of care demanded will require nurses who are able to perform complex procedures.

Employment in nursing homes is expected to grow faster than average due to increases in the number of elderly, many of whom require long-term care. In addition, the financial pressure on hospitals to discharge patients as soon as possible should produce more nursing home admissions. Growth in units that provide specialized long-term rehabilitation for stroke and head injury patients or that treat Alzheimer's victims also will increase employment.

An increasing proportion of sophisticated procedures, which once were performed only in hospitals, are being performed in physicians' offices and clinics, including ambulatory surgicenters and emergency medical centers. Accordingly, employment is expected to grow faster than average in these places as healthcare in general expands.

In evolving integrated health care networks, nurses may rotate among employment settings. Because jobs in traditional hospital nursing positions are no longer the only option, RNs will need to be flexible. Opportunities should be excellent, particularly for nurses with advanced education and training.

Earnings

Median annual earnings of registered nurses were \$44,840 in 2000. The middle 50 percent earned between \$37,870 and \$54,000. The lowest 10 percent earned less than \$31,890, and the highest 10 percent earned more than \$64,360. Median annual earnings in the industries employing the largest numbers of registered nurses in 2000 were as follows:

Personnel supply services	\$46,860
Hospitals	45,780
Home health care services	43,640
Offices and clinics of medical doctors	43,480
Nursing and personal care facilities	41,330

Many employers offer flexible work schedules, childcare, educational benefits, and bonuses.

Related Occupations

Workers in other healthcare occupations with responsibilities and duties related to those of registered nurses are emergency medical technicians and paramedics, occupational therapists, physical therapists, physician assistants, and respiratory therapists.

Sources of Additional Information

For information on a career as a registered nurse and nursing education, contact:

► National League for Nursing, 61 Broadway, New York, NY 10006. Internet: <http://www.nln.org>

For a list of B.S.N. and graduate nursing programs, write to:

► American Association of Colleges of Nursing, 1 Dupont Circle NW., Suite 530, Washington, DC 20036. Internet: <http://www.aacn.nche.edu>

Information on registered nurses also is available from:

► American Nurses Association, 600 Maryland Ave. SW., Washington, DC 20024-2571. Internet: <http://www.nursingworld.org>

Respiratory Therapists

(O*NET 29-1126.00, 29-2054.00)

Significant Points

- Hospitals will continue to employ more than 8 out of 10 respiratory therapists, but a growing number of therapists will work in respiratory therapy clinics, nursing homes, home health agencies, and firms that supply respiratory equipment for home use.
- Job opportunities will be best for therapists with cardiopulmonary care skills or experience working with newborns and infants.

Nature of the Work

Respiratory therapists and respiratory therapy technicians—also known as *respiratory care practitioners*—evaluate, treat, and care for patients with breathing disorders. *Respiratory therapists* assume primary responsibility for all respiratory care treatments, including the supervision of respiratory therapy technicians. *Respiratory therapy technicians* provide specific, well-defined respiratory care procedures under the direction of respiratory therapists and physicians. In clinical practice, many of the daily duties of therapists and technicians overlap, although therapists generally have more experience than technicians. In this statement, the term *respiratory therapists* includes both respiratory therapists and respiratory therapy technicians.

To evaluate patients, respiratory therapists test the capacity of the lungs and analyze oxygen and carbon dioxide concentration. They also measure the patient's potential of hydrogen (pH), which indicates the acidity or alkalinity level of the blood. To measure lung capacity, patients breathe into an instrument that measures the volume and flow of oxygen during inhalation and exhalation. By comparing the reading with the norm for the patient's age, height, weight, and sex, respiratory therapists can determine whether lung deficiencies exist. To analyze oxygen, carbon dioxide, and pH levels, therapists draw an arterial blood sample, place it in a blood gas analyzer, and relay the results to a physician.

Respiratory therapists treat all types of patients, ranging from premature infants whose lungs are not fully developed, to elderly people whose lungs are diseased. These workers provide temporary relief to patients with chronic asthma or emphysema, as well as emergency care to patients who are victims of a heart attack, stroke, drowning, or shock.

To treat patients, respiratory therapists use oxygen or oxygen mixtures, chest physiotherapy, and aerosol medications. To increase a patient's concentration of oxygen, therapists place an oxygen mask or nasal cannula on a patient and set the oxygen flow at the level prescribed by a physician. Therapists also connect patients who cannot breathe on their own to ventilators that deliver pressurized oxygen into the lungs. They insert a tube into a patient's trachea, or windpipe; connect the tube to the ventilator; and set the rate, volume, and oxygen concentration of the oxygen mixture entering the patient's lungs.

Therapists regularly check on patients and equipment. If the patient appears to be having difficulty, or if the oxygen, carbon dioxide, or pH level of the blood is abnormal, they change the ventilator setting according to the doctor's order or check equipment for mechanical problems. In homecare, therapists teach patients and their families to use ventilators and other life support systems. Additionally, they visit several times a month to inspect and clean equipment and ensure its proper use and make emergency visits, if equipment problems arise.