

- ▶ National Registry of Emergency Medical Technicians, P.O. Box 29233, Columbus, OH 43229. Internet: <http://www.nremt.org>
- ▶ National Highway Transportation Safety Administration, EMS Division, 400 7th St. SW., NTS-14, Washington, DC. Internet: <http://www.nhtsa.dot.gov/people/injury/ems>

Licensed Practical and Licensed Vocational Nurses

(O*NET 29-2061.00)

Significant Points

- Training lasting about 1 year is available in about 1,100 State-approved programs, mostly in vocational or technical schools.
- Nursing homes will offer the most new jobs.
- Job seekers in hospitals may face competition as the number of hospital jobs for LPNs declines.

Nature of the Work

Licensed practical nurses (LPNs), or licensed vocational nurses (LVNs) as they are called in Texas and California, care for the sick, injured, convalescent, and disabled under the direction of physicians and registered nurses. (The work of *physicians and surgeons* and *registered nurses* is described elsewhere in the *Handbook*.)

Most LPNs provide basic bedside care. They take vital signs such as temperature, blood pressure, pulse, and respiration. They also treat bedsores, prepare and give injections and enemas, apply dressings, give alcohol rubs and massages, apply ice packs and hot water bottles, and monitor catheters. LPNs observe patients and report adverse reactions to medications or treatments. They collect samples for testing, perform routine laboratory tests, feed patients, and record food and fluid intake and output. They help patients with bathing, dressing, and personal hygiene, keep them comfortable, and care for their emotional needs. In States where the law allows, they may administer prescribed medicines or start intravenous fluids. Some LPNs help deliver, care for, and feed infants. Experienced LPNs may supervise nursing assistants and aides.

LPNs in nursing homes provide routine bedside care, help evaluate residents' needs, develop care plans, and supervise the care provided by nursing aides. In doctors' offices and clinics, they also



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may make appointments, keep records, and perform other clerical duties. LPNs who work in private homes also may prepare meals and teach family members simple nursing tasks.

Working Conditions

Most licensed practical nurses in hospitals and nursing homes work a 40-hour week, but because patients need around-the-clock care, some work nights, weekends, and holidays. They often stand for long periods and help patients move in bed, stand, or walk.

LPNs may face hazards from caustic chemicals, radiation, and infectious diseases such as hepatitis. They are subject to back injuries when moving patients and shock from electrical equipment. They often must deal with the stress of heavy workloads. In addition, the patients they care for may be confused, irrational, agitated, or uncooperative.

Employment

Licensed practical nurses held about 700,000 jobs in 2000. Twenty-nine percent of LPNs worked in nursing homes, 28 percent worked in hospitals, and 14 percent in physicians' offices and clinics. Others worked for home healthcare services, residential care facilities, schools, temporary help agencies, or government agencies; about 1 in 5 worked part time.

Training, Other Qualifications, and Advancement

All States and the District of Columbia require LPNs to pass a licensing examination after completing a State-approved practical nursing program. A high school diploma, or equivalent, usually is required for entry, although some programs accept candidates without a diploma or are designed as part of a high school curriculum.

In 2000, approximately 1,100 State-approved programs provided practical nursing training. Almost 6 out of 10 students were enrolled in technical or vocational schools, while 3 out of 10 were in community and junior colleges. Others were in high schools, hospitals, and colleges and universities.

Most practical nursing programs last about 1 year and include both classroom study and supervised clinical practice (patient care). Classroom study covers basic nursing concepts and patient-care related subjects, including anatomy, physiology, medical-surgical nursing, pediatrics, obstetrics, psychiatric nursing, administration of drugs, nutrition, and first aid. Clinical practice usually is in a hospital, but sometimes includes other settings.

LPNs should have a caring, sympathetic nature. They should be emotionally stable because work with the sick and injured can be stressful. They also should have keen observational, decision making, and communication skills. As part of a healthcare team, they must be able to follow orders and work under close supervision.

Job Outlook

Employment of LPNs is expected to grow about as fast as the average for all occupations through 2010 in response to the long-term care needs of a rapidly growing elderly population and the general growth of healthcare. Replacement needs will be a major source of job openings, as many workers leave the occupation permanently.

Employment of LPNs in nursing homes is expected to grow faster than the average. Nursing homes will offer the most new jobs for LPNs as the number of aged and disabled persons in need of long-term care rises. In addition to caring for the aged and disabled, nursing homes will be called on to care for the increasing number of patients who have been discharged from the hospital but who have not recovered enough to return home.

LPNs seeking positions in hospitals may face competition, as the number of hospital jobs for LPNs declines. 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, due largely to advances in technology. As a result, employment of LPNs is projected to grow much faster than average in these places as healthcare expands outside the traditional hospital setting.

Employment of LPNs is expected to grow much faster than average in home healthcare services. This is in response to a growing number of older persons with functional disabilities, consumer preference for care in the home, and technological advances, which make it possible to bring increasingly complex treatments into the home.

Earnings

Median annual earnings of licensed practical nurses were \$29,440 in 2000. The middle 50 percent earned between \$24,920 and \$34,800. The lowest 10 percent earned less than \$21,520, and the highest 10 percent earned more than \$41,800. Median annual earnings in the industries employing the largest numbers of licensed practical nurses in 2000 were as follows:

Personnel supply services	\$35,750
Home health care services	31,220
Nursing and personal care facilities	29,980
Hospitals	28,450
Offices and clinics of medical doctors	27,520

Related Occupations

LPNs work closely with people while helping them. So do emergency medical technicians and paramedics, social and human service assistants, surgical technologists, and teacher assistants.

Sources of Additional Information

For information about practical nursing, contact:

- ▶ National League for Nursing, 61 Broadway, New York, NY 10006. Internet: <http://www.nln.org>
- ▶ National Association for Practical Nurse Education and Service, Inc., 1400 Spring St., Suite 330, Silver Spring, MD 20910.
- ▶ National Federation of Licensed Practical Nurses, Inc., 893 US Highway 70 West, Suite 202, Garner, NC 27529-2597.

Medical Records and Health Information Technicians

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Significant Points

- Medical records and health information technicians are projected to be one of the fastest growing occupations.
- High school students can improve chances of acceptance into a medical record and health information education program by taking anatomy, physiology, medical terminology, and computer courses.
- Most technicians will be employed by hospitals, but job growth will be faster in offices and clinics of physicians, nursing homes, and home health agencies.

Nature of the Work

Every time health care personnel treat a patient, they record what they observed, and how the patient was treated medically. This record includes information the patient provides concerning their symptoms and medical history, the results of examinations, reports

of x rays and laboratory tests, diagnoses, and treatment plans. Medical records and health information technicians organize and evaluate these records for completeness and accuracy.

Medical records and health information technicians begin to assemble patients' health information by first making sure their initial medical charts are complete. They ensure all forms are completed and properly identified and signed, and all necessary information is in the computer. Sometimes, they communicate with physicians or others to clarify diagnoses or get additional information.

Technicians assign a code to each diagnosis and procedure. They consult classification manuals and rely, also, on their knowledge of disease processes. Technicians then use a software program to assign the patient to one of several hundred "diagnosis-related groups," or DRG's. The DRG determines the amount the hospital will be reimbursed if the patient is covered by Medicare or other insurance programs using the DRG system. Technicians who specialize in coding are called health information coders, medical record coders, coder/abstractors, or coding specialists. In addition to the DRG system, coders use other coding systems, such as those geared towards ambulatory settings.

Technicians also use computer programs to tabulate and analyze data to help improve patient care, control costs, for use in legal actions, in response to surveys, or for use in research studies. *Tumor registrars* compile and maintain records of patients who have cancer to provide information to physicians and for research studies.

Medical records and health information technicians' duties vary with the size of the facility. In large to medium facilities, technicians may specialize in one aspect of health information, or supervise health information clerks and transcriptionists while a *medical records and health information administrator* manages the department. (See the statement on medical and health services managers elsewhere in the *Handbook*.) In small facilities, a credentialed medical records and health information technician sometimes manages the department.

Working Conditions

Medical records and health information technicians usually work a 40-hour week. Some overtime may be required. In hospitals—where health information departments often are open 24 hours a day, 7 days a week—technicians may work day, evening, and night shifts.

Medical records and health information technicians work in pleasant and comfortable offices. This is one of the few health occupations in which there is little or no physical contact with



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