Health Care in California

Labor Market Information Division

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INTRODUCTION

Health Care in California

The health care industry is a significant and growing part of California's economy. Health care related occupations from pediatricians to nurses to home health aides represent over 7 percent of California's total employment. Increasing employment opportunities in health care over the next several years will be due, in part, to the following:

- California's aging population will require skilled health care workers trained in the care of the elderly. Their health issues will spur the need for a specialized workforce to care for this segment of the state's population.
- Implementation of the 2010 Affordable Care Act (ACA) will add over five million people to those covered by health insurance in the state, increasing health care job opportunities.
- As a large portion of the current health care workforce nears retirement, health care providers will seek well-trained replacement workers. For example, over half of the registered nurses hired annually through 2020 will be replacing current staff including those retiring.
- Technological advances in health care are changing both patient care and modes of medical information dissemination. Changing and improving medical equipment and information technology has improved accuracy of medical diagnosis, disbursement of medical information, and communication between care providers and patients.
- Like the nation, the current shortage of primary health care providers may persist in the future unless the ongoing, concerted, joint effort between the state's public sector, educators, and the private health care sector is successful.
- Increasingly, underserved rural and urban community representatives are encouraging policy makers, healthcare providers, and educators to develop creative non-traditional means to provide health care to their areas. For example, offering student loan pay downs and scholarships to students and recent graduates who are willing to commit to providing medical services to an underserved community for a specific time. Other means under consideration in providing and improving care in underserved areas include expanding the allowed responsibilities for nurse practitioners and medical assistance.
- California has the most diverse population in the nation. Therefore, it is essential to increase the diversity of its health care workforce, including adding more bilingual workers.

The purpose of this report is to provide information on 31 key health care occupations in California. The occupations are those with one or more of the following criteria: expected strong growth, anticipated high demand due to employees leaving the health care workforce, and occupations in demand due to the needs of underserved communities.

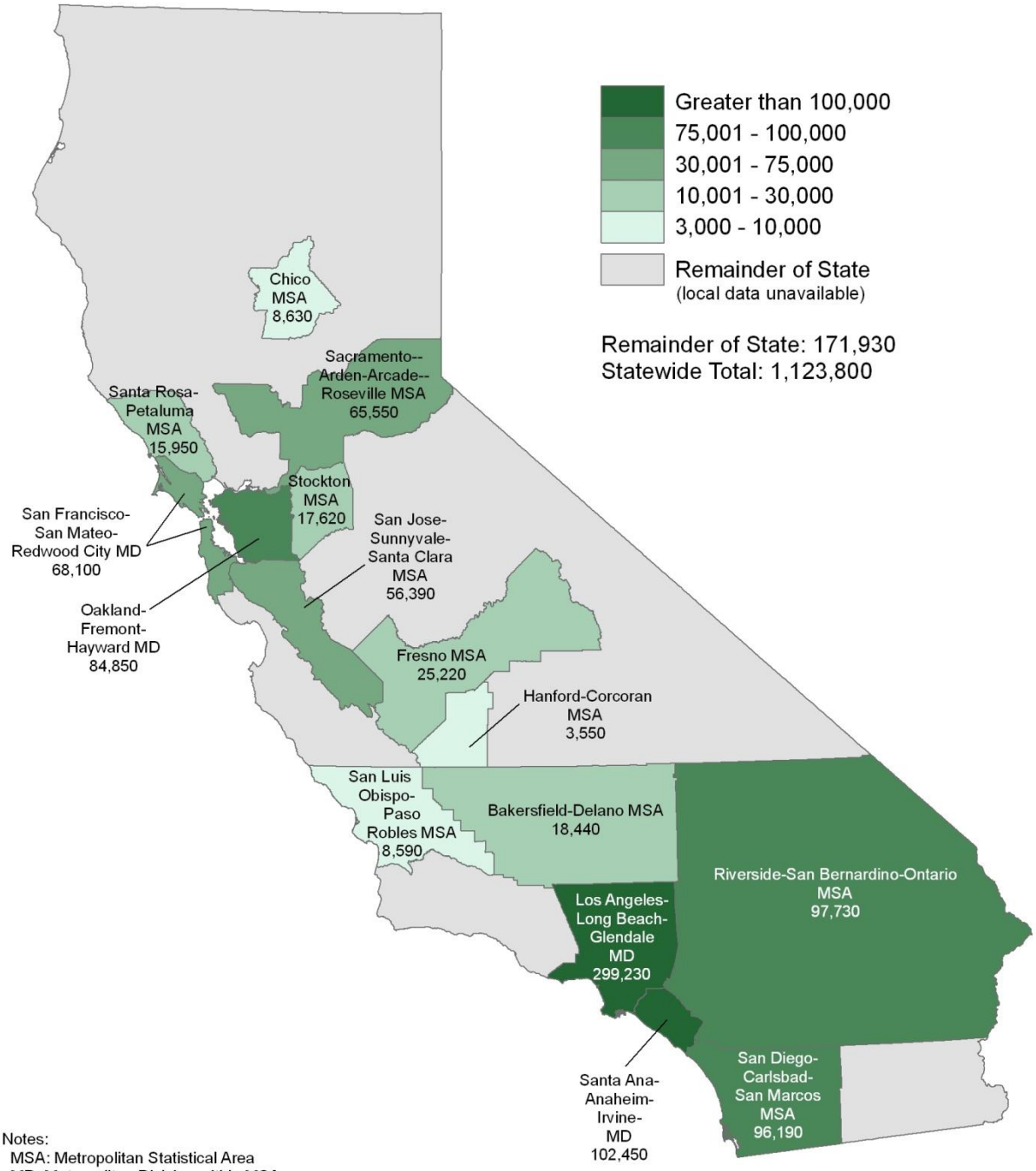
California's Health Care Industry

California is well poised to take on the challenges facing its health care industry and the demand for a well-trained health care workforce. The state's higher education system, public and private, currently has a depth of programs to train all levels of the health care workforce. In addition, the state is one of the first in the nation to begin addressing the burgeoning health care workforce needs due to the expected surge of additional residents being covered by health insurance. Policy makers, health care-related public agencies, educators, health care providers and other stakeholders are working together to meet California's current and future health care needs. Opportunities and choices abound for those considering a career in health care. Below are a few facts about California's health care industry and its workforce:

- General medical and surgical hospitals are the largest employers of the health care workforce with more than 30 percent of all health care jobs.
- Regionally, the Los Angeles-Long Beach-Glendale Metropolitan Division employs the greatest number of health care workers, an estimated 299,230 in 2010. In addition, during the projected period of 2010-2020, the area's health care employment is expected to increase by nearly 120,000 or 40 percent.
- The Santa Ana-Anaheim-Irvine Metropolitan Division has the state's second largest health care workforce with more than 102,000 jobs.
- In Northern California, the Oakland-Fremont-Hayward and San Francisco-San Mateo-Redwood City Metropolitan Divisions are the leading health care employment centers with just under 153,000 health care jobs in 2010.
- Northern California metropolitan areas of Oakland-Fremont-Hayward Metropolitan Division, San Francisco-San Mateo-Redwood City Metropolitan Division, Sacramento-Arden Arcade-Roseville Metropolitan Statistical Area, and San Jose-Sunnyvale-Santa Clara Metropolitan Statistical Area are projected to add over 20,000 health care jobs in each region from 2010-2020.

The following maps (Health Care Employment by Metropolitan Area and Projected Demand for Health Care Jobs by Metropolitan Area 2010-2020) illustrate California's health care employment and expected growth.

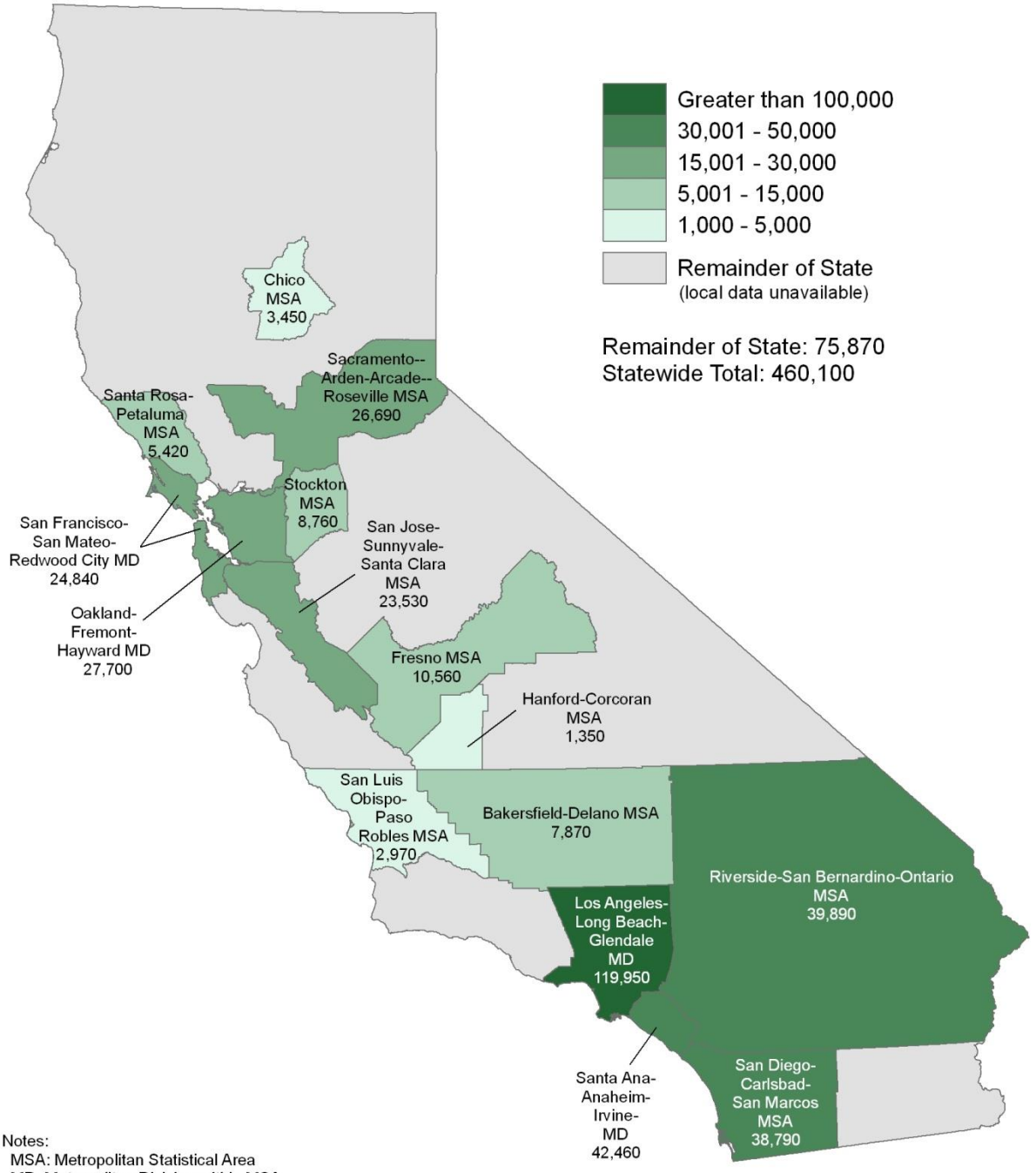
Health Care Employment by Metropolitan Area, 2010



Notes:
MSA: Metropolitan Statistical Area
MD: Metropolitan Division within MSA

Data and Cartography by:
Labor Market Information Division
California Employment Development Department
September 2013

Projected Demand for Health Care Jobs by Metropolitan Area, 2010–2020



Notes:
MSA: Metropolitan Statistical Area
MD: Metropolitan Division within MSA

Data and Cartography by:
Labor Market Information Division
California Employment Development Department
September 2013

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Major Employment Areas in Health Care

The health care industry employs 75 percent of California's health care workforce and within the industry there are several areas where job seekers have the opportunity to explore.

Hospitals

The primary function of a hospital is to provide health care to patients. In the past, California's hospitals were usually staffed by members of the founding religious order or by volunteers. Trained professionals, highly skilled in a variety of specializations, staff today's hospitals.

Typically, hospital staffing includes, but is not limited to, surgeons, general and specialized physicians, nurses, technicians and technologists, assistants and aides, and administrative staff.

Nursing and Residential Care Facilities

Nursing and residential care facilities are settings where patients receive medical care and living support, usually for the long term or toward the end of life. The degree of care depends on the type of facility. For example, residents of skilled nursing facilities require 24-hour care, while those in independent and residential care facilities require less intensive nursing and personal care.

Physicians' and Health Practitioners' Offices

Physicians' and health practitioners' offices are usually private offices or clinics with one or more health providers. A small staff of nurses, assistants, aides, and administrative personnel are also part of the office staff.

Home Health Care Providers

A growing segment of the health care industry, home health care providers is typically comprised of private providers and a team of home health care staff. On an assigned basis, staff members care for clients who are unable to care for all or some of their personal care needs.

Outpatient Care Centers

Outpatient care centers include health maintenance organization (HMO) medical centers, family planning centers, outpatient mental health and substance abuse centers, and kidney dialysis centers.

Medical and Diagnostic Laboratories

Medical laboratories and diagnostic imaging centers perform a myriad of testing. X-rays, mammograms, colonoscopies, ultrasounds, computerized axial tomographic (CAT) scans, and urinalysis are just a sampling of tests performed at these facilities.

Dentists' Offices

Like physicians' offices, dental offices are usually private offices or clinics with one or more dental care provider. A small staff of assistants, aides, and administrative personnel are typically part of the dental office staff.

Health Care Occupations at a Glance: Employment Change and Job Openings

	Annual Average Employment		Employment Change		Average Annual Job Openings		
Key Occupation	**2010**	**2020**	**Numerical [1]**	**Percent**	**New Jobs [2]**	**Replace-ment Needs [3]**	**Total Jobs [4]**
Cardiovascular Technologists and Technicians	3,600	4,500	900	25	90	60	150
Dental Hygienists	19,900	23,300	3,400	17.1	350	400	750
Dentists, General	17,000	17,700	700	4.1	70	510	580
Diagnostic Medical Sonographers	5,300	7,300	2,000	37.7	200	80	280
Dietitians and Nutritionists	7,000	8,400	1,400	20	140	250	390
Emergency Medical Technicians and Paramedics	15,900	22,600	6,700	42.1	670	320	990
Family and General Practitioners	12,300	15,000	2,700	22	270	240	510
Home Health Aides	61,100	93,100	32,000	52.4	3,200	790	3,990
Internists, General	8,300	10,000	1,700	20.5	180	160	340
Licensed Practical and Licensed Vocational Nurses	64,500	79,000	14,500	22.5	1,450	1,720	3,170
Medical and Clinical Laboratory Technicians	16,900	19,400	2,500	14.8	250	330	580
Medical and Clinical Laboratory Technologists	11,800	13,200	1,400	11.9	140	230	370
Medical and Health Services Managers	27,800	33,000	5,200	18.7	530	680	1,210
Medical Assistants	80,900	99,000	18,100	22.4	1,810	1,240	3,050
Medical Records and Health Information Technicians	17,400	20,700	3,300	19	330	350	680
Medical Secretaries	78,300	101,400	23,100	29.5	2,300	1,050	3,350
Nursing Aides, Orderlies, and Attendants	109,500	134,100	24,600	22.5	2,470	1,410	3,880
Occupational Therapists	9,000	11,200	2,200	24.4	210	170	380
Optometrists	4,100	4,800	700	17.1	70	150	220
Pharmacists	23,600	29,900	6,300	26.7	630	600	1,230
Pharmacy Aides	8,100	10,700	2,600	32.1	260	120	380
Pharmacy Technicians	29,000	38,600	9,600	33.1	960	500	1,460
Physical Therapist Aides	6,400	8,300	1,900	29.7	200	100	300
Physical Therapist Assistants	4,600	6,000	1,400	30.4	140	70	210
Physical Therapists	16,500	20,400	3,900	23.6	390	190	580
Physician Assistants	8,300	10,400	2,100	25.3	220	160	380
Psychiatric Technicians	8,900	10,800	1,900	21.3	190	150	340
Radiologic Technologists and Technicians	17,200	21,300	4,100	23.8	410	270	680
Registered Nurses	251,800	306,100	54,300	21.6	5,420	4,560	9,980
Respiratory Therapists	14,200	17,900	3,700	26.1	360	270	630
Surgical Technologists	8,900	10,200	1,300	14.6	140	150	290

[1] Numerical employment change is the net difference between the base and projected year employment and reflects job growth or decline. The base and projected year employment are independently rounded to 100. Therefore, numerical change may not equal new jobs.

[2] New jobs are only openings due to growth and do not include job declines. If an occupation's employment change is negative, there is no job growth and new jobs are set to zero. New jobs may not equal numerical change.

[3] Replacement needs estimate the number of job openings created when workers retire or permanently leave an occupation and need to be replaced.

[4] Total jobs are the sum of new jobs and replacement needs.

Health Care Occupations at a Glance: Educational Requirements and Wages

Occupational Title	Education and Training Levels [1]			2013 First Quarter Wages [2]	
	Entry Level Education	Work Experience	On-the-Job Training	Median Hourly	Median Annual
Cardiovascular Technologists and Technicians	4	None	None	$27.58	$57,369
Dental Hygienists	4	None	None	$48.02	$99,878
Dentists, General	1	None	I/R	$62.24	$129,445
Diagnostic Medical Sonographers	4	None	None	$40.97	$85,226
Dietitians and Nutritionists	3	None	I/R	$33.56	$69,815
Emergency Medical Technicians and Paramedics	5	None	None	$14.03	$29,179
Family and General Practitioners	1	None	I/R	$83.90	$174,513
Home Health Aides	8	None	ST OJT	$10.65	$22,135
Internists, General	1	None	I/R	>$90.00	>$187,200
Licensed Practical and Licensed Vocational Nurses	5	None	None	$24.93	$51,844
Medical and Clinical Laboratory Technicians	4	None	None	$19.93	$41,442
Medical and Clinical Laboratory Technologists	3	None	None	$38.73	$80,562
Medical and Health Services Managers	3	None	None	$52.07	$108,305
Medical Assistants	7	None	MT OJT	$15.79	$32,836
Medical Records and Health Information Technicians	5	None	None	$18.80	$39,111
Medical Secretaries	7	None	MT OJT	$17.23	$35,834
Nursing Aides, Orderlies, and Attendants	5	None	None	$13.41	$27,898
Occupational Therapists	2	None	None	$42.66	$88,741
Optometrists	1	None	None	$45.12	$93,854
Pharmacists	1	None	None	$64.33	$133,802
Pharmacy Aides	7	None	ST OJT	$11.77	$24,482
Pharmacy Technicians	7	None	MT OJT	$18.51	$38,500
Physical Therapist Aides	7	None	MT OJT	$12.63	$26,267
Physical Therapist Assistants	4	None	None	$29.64	$61,656
Physical Therapists	1	None	None	$43.20	$89,869
Physician Assistants	2	None	None	$49.86	$103,708
Psychiatric Technicians	5	None	ST OJT	$25.65	$53,338
Radiologic Technologists and Technicians	4	None	None	$33.37	$69,409
Registered Nurses	4	None	None	$43.06	$89,577
Respiratory Therapists	4	None	None	$35.28	$73,365
Surgical Technologists	5	None	None	$25.94	$53,948

[1] The Bureau of Labor Statistics develops and assigns education and training categories to each occupation. For more information on these categories, please see http://www.bls.gov/emp/ep_education_training_system.htm

[2] Median hourly and annual wages are the estimated 50th percentile of the distribution of wages; 50 percent of workers in an occupation earn wages below; and 50 percent earn wages above the median wage. The wages are from 2013 first quarter and do not include self-employed or unpaid family workers.

Entry Level Education
1- Doctoral or professional degree
2- Master's degree
3- Bachelor's degree
4- Associate's degree
5- Postsecondary non-degree award
6- Some college, no degree
7- High school diploma or equivalent
8- Less than high school

Work Experience in a Related Occupation	
>5 years	More than 5 years experience in a related occupation or field is common.
1-5 years	Between 1 and 5 years experience in a related occupation or field is common.
<1 year	Less than 1 year experience in a related occupation or field is common.
None	No work experience is typically required.

On-the-Job Training	
I/R	Internship/Residency
APP	Apprenticeship
LT OJT	Long-term on-the-job training
MT OJT	Moderate-term on-the-job training
ST OJT	Short-term on-the-job training
None	None

Top 10 Skills of 31 Key Health Care Occupations

Educational Requirement	Skills required for Health Care Occupations	Active Listening	Reading Comprehension	Speaking	Monitoring	Critical Thinking	Social Perceptiveness	Service Orientation	Writing	Coordination	Active Learning	Science	Instructing	Judgment and Decision Making	Time Management	Operation Monitoring	Learning Strategies	Complex Problem Solving	Quality Control Analysis	Operation and Control	Mathematics	Persuasion	Operations Analysis
Doctoral or Professional Degree	Dentists	●	●	●	●	●				●	●	●		●				●					
	Family and General Practitioners	●	●	●		●	●		●		●	●		●				●					
	Internists, General	●	●	●		●	●		●		●	●		●				●					
	Optometrists	●	●	●	●	●	●	●			●	●		●									
	Pharmacists	●	●	●	●	●	●		●	●		●	●										
	Physical Therapists	●	●	●	●	●	●	●	●				●		●								
Bachelor's or Master's Degree	Occupational Therapists	●	●	●	●	●	●	●	●		●				●								
	Physician Assistants	●	●	●		●	●	●	●			●	●	●									
	Dietitians and Nutritionists	●	●	●	●	●	●		●								●	●				●	
	Medical and Clinical Laboratory Technologists	●	●	●	●	●			●		●	●				●			●				
	Medical and Health Services Managers	●	●	●	●	●	●			●				●	●								●
Associate's Degree or some college, no degree	Cardiovascular Technologists and Technicians	●	●	●	●	●		●	●		●	●	●										
	Dental Hygienists	●	●	●	●	●		●	●	●	●		●										
	Diagnostic Medical Sonographers	●	●	●	●	●	●		●		●	●	●										
	Medical and Clinical Laboratory Technicians	●	●	●	●	●			●	●	●	●				●							
	Physical Therapist Assistants	●	●	●	●	●	●	●	●	●							●						
	Radiologic Technicians	●	●	●	●		●	●		●					●	●				●			
	Radiologic Technologists	●	●	●	●		●	●	●	●		●	●										
	Registered Nurses	●	●	●	●	●	●	●		●	●			●									
	Respiratory Therapists	●	●	●	●	●	●	●	●		●	●											
	Emergency Medical Technicians and Paramedics	●	●	●	●	●	●	●		●	●	●											
	Licensed Practical & Licensed Vocational Nurses	●	●	●	●	●	●	●		●				●	●								
	Medical Records and Health Information Technicians	●	●	●	●	●		●	●				●	●	●								
	Physical Therapist Aides	●	●	●	●		●	●	●	●			●				●						
	Psychiatric Technicians	●	●	●	●	●	●	●		●	●						●						
	Surgical Technologists	●	●	●	●	●	●			●	●					●			●				
High school diploma/equivalent or less than high school	Medical Assistants	●	●	●	●	●	●	●	●	●	●												
	Medical Secretaries	●	●	●	●	●	●	●	●	●					●								
	Pharmacy Aides	●	●	●	●	●	●	●		●	●										●		
	Pharmacy Technicians	●	●	●	●	●	●	●	●	●	●												
	Home Health Aides	●	●	●	●	●	●	●		●	●		●										

Source: U.S. Department of Labor Occupational Information Network (O*NET) at online.onecenter.org

Top 10 Work Activities of 31 Key Health Care Occupations

Educational Requirement	Work Activities required for Health Care Occupations	Updating and Using Relevant Knowledge	Monitor Processes, Materials, or Surroundings	Identifying Objects, Actions, and Events	Establishing and Maintaining Interpersonal Relationships	Assisting and Caring for Others	Making Decisions and Solving Problems	Getting Information	Organizing, Planning, and Prioritizing Work	Communicating with Supervisors, Peers, or Subordinates	Documenting/Recording Information	Performing for or Working Directly with the Public	Processing Information	Handling and Moving Objects	Analyzing Data or Information	Controlling Machines and Processes	Performing General Physical Activities	Evaluating Information to Determine Compliance with Standards	Inspecting Equipment, Structures, or Material	Judging the Qualities of Things, Services, or People	Resolving Conflicts and Negotiating with Others	Coaching and Developing Others	Communicating with Persons Outside Organization	Monitoring and Controlling Resources	Coordinating the Work and Activities of Others	Guiding, Directing, and Motivating Subordinates	Performing Administrative Activities	Provide Consultation and Advice to Others	Thinking Creatively	Training and Teaching Others	Working With Computers
Doctoral or Professional Degree	Dentists	●	●	●	●		●					●	●		●	●				●											
	Family and General Practitioners	●	●	●	●	●	●	●			●		●		●																
	Internists, General	●	●	●		●	●	●			●	●	●		●																
	Optometrists	●		●	●	●	●	●				●	●		●									●							
	Pharmacists	●	●	●		●	●	●			●		●					●		●											
	Physical Therapists	●	●	●	●	●	●	●	●	●				●																	
Bachelor's or Master's Degree	Occupational Therapists	●	●	●	●	●	●	●	●						●														●		
	Physician Assistants	●	●	●	●	●	●	●		●			●		●																
	Dietitians and Nutritionists	●	●	●	●			●	●	●		●	●									●									
	Medical and Clinical Laboratory Technologists	●	●	●			●		●	●	●		●					●	●												
	Medical and Health Services Managers				●		●		●	●											●	●		●	●	●		●			
Associate's Degree or some college, no degree	Cardiovascular Technologists and Technicians	●	●	●	●	●		●		●	●	●		●																	
	Dental Hygienists	●	●	●	●	●	●			●	●	●																		●	
	Diagnostic Medical Sonographers	●	●	●	●	●				●	●		●	●		●															
	Medical and Clinical Laboratory Technicians	●	●	●			●		●		●		●			●		●	●												
	Physical Therapist Assistants	●	●	●	●	●	●	●	●	●	●																				
	Radiologic Technicians	●	●	●	●	●	●					●		●		●	●														
	Radiologic Technologists	●	●	●	●	●		●				●		●		●	●														
	Registered Nurses	●	●	●	●	●	●	●	●		●			●																	
	Respiratory Therapists	●	●	●		●	●	●	●		●	●				●															
	Emergency Medical Technicians and Paramedics	●	●	●		●	●				●	●		●			●						●								
	Licensed Practical & Licensed Vocational Nurses	●	●	●	●	●	●	●		●	●			●																	
	Medical Records and Health Information Technicians	●	●	●	●		●	●	●	●			●					●													
	Physical Therapist Aides	●	●		●	●	●	●	●			●		●			●														
	Psychiatric Technicians	●	●	●	●	●	●		●	●							●				●										
	Surgical Technologists	●	●	●	●	●		●	●					●			●		●												
High school diploma or equivalent or less than high school	Medical Assistants	●	●	●	●	●		●	●	●	●	●																			
	Medical Secretaries	●			●	●		●	●	●		●											●				●				●
	Pharmacy Aides	●	●		●	●			●	●		●	●	●							●										
	Pharmacy Technicians	●	●	●	●		●		●				●		●			●		●											
	Home Health Aides		●	●	●	●	●	●	●	●	●			●																	

Source: U.S. Department of Labor Occupational Information Network (O*NET) at online.onecenter.org

The Importance of Communication in Health Care

Health care is an industry requiring extensive interaction with others. When hiring, employers are seeking both highly skilled candidates and those with strong communication skills. A majority of the occupations within health care require the skills and abilities of active listening, attention to detail, sensitivity to others and their reactions, clear thinking and speaking, and a service orientation toward others. Communication with co-workers, patients, and patient's family members will be a continuous occurrence throughout a health care worker's career.

Opportunities for California's Veterans in Health Care

California has the nation's largest veteran population. With an estimated 1.8 million veterans living in California, many veterans returning from active duty seek civilian jobs. Those with health care skills acquired while in the military have a variety of opportunities in today's health care sector. *Vocations for Vets*, a publication produced by the state's Employment Development Department, offers help for men and women who have experience in a military medical position and who are looking to enter the civilian workforce. Highlighted in the packet are profiles of five civilian occupations that require many of the same skills as medical military occupations. To view the Vocations for Vets publication go to www.calmis.ca.gov/file/veterans/North-Region-Medical-Vets.pdf.

Profiles of Key Health Care Occupations

The following section contains profiles of 31 key health care occupations in California. Each profile highlights the most essential occupational information by providing a concise general job description, job outlook and wage data, and typical qualification requirements. Due to their expected strong employment growth, administrative positions of Medical Secretaries and Medical and Health Services Managers are also included in the profiles.

Dentists, General in California

Common Occupational Titles: Associate Dentists, Dental Medicine Doctors (DMD), Doctors of Dental Surgery (DDS), and Family Dentists.

Specialties within this occupation include: Endodontists, Oral and Maxillofacial Surgeons, Orthodontists, and Prosthodontists.

What Would I Do?

Most Dentists are general practitioners who address a variety of dental care needs. They examine, diagnose, and treat problems affecting the teeth, gums, tongue, lips, and jaws. They remove tooth decay, fill cavities, place protective sealants on children's teeth, and straighten teeth. They also administer anesthetics to control the amount of pain experienced by patients during procedures such as extractions and dental surgery on gums and supporting bones.

Dentists provide instruction on diet, brushing, flossing, the use of fluorides, and other aspects of oral health care. They are important in the early detection of oral cancer and other conditions in the body that display symptoms in the mouth.

Job Outlook and Wages

Employment for Dentists should remain steady. The growing older population should drive demand for the more expensive services and dental products available. More people are keeping their teeth as they age. Additionally, there is a growing interest in cosmetic dentistry. Growth of dental benefits in managed care also drives demand for routine and optional procedures. A large group of Dentists have reached retirement age and will need to be replaced in the near future.

The median wage in 2012 for Dentists, General in California was $134,204 annually or $64.52 hourly. The median is the point at which half of the workers earn more and half earn less.

For additional information on job growth and wages, view projected growth and wages.

How Do I Qualify?

- Graduation from an accredited four-year dentistry program is required.
- Applicants must pass the Dental Acceptance Test (DAT) to be admitted into dental school.
- Specializing in any related field may take another two to four years.
- Some employers prefer to hire Dentists with one to three years of experience.
- Obtain licensure from the Dental Board of California

For more information about this occupation, view the *California Occupational Guide*.

Family and General Practitioners in California

Common Occupational Titles: Board Certified Family Physicians, Family Medicine Physicians, Family Physicians, Family Practice Doctors, Family Practice Physicians, Medical Doctors, Medical Staff Physicians, Physicians, and Primary Care Physicians.

What Would I Do?

Family and General Practitioners may diagnose and treat many different illnesses. When needed, they refer patients to specialists, like podiatrists or dermatologists, in order for the patients to receive appropriate care. Family and General Practitioners order laboratory tests, x-rays, and other forms of medical evaluations as needed.

Family and general practitioners spend the majority of their time meeting with patients. They generally have a group of patients for whom they care from young adulthood until late adulthood. In rural areas they may also have infant patients. After making a diagnosis, they may prescribe medications. The Practitioners must educate the patients and their family members on the proper use of medication and how to properly treat illnesses. Family and General Practitioners also provide dietary advice and educate patients on the prevention of illnesses.

Job Outlook and Wages

Job opportunities for Family and General Practitioners are expected to increase, primarily due to population growth and an aging population that will require frequent medical attention.

Wages are not available for Family and General Practitioners. Earnings vary according to experience, location, and number of hours worked. Family and General Practitioners who work in rural areas tend to earn less than those who work in larger cities.

For additional information on job growth and wages, view projected growth and wages.

How Do I Qualify?

- Obtain a medical degree from a school approved by the Medical Board of California.
- Take and pass the United States Medical Licensing Examination (USMLE).
- Obtain licensure from the Medical Board of California.

For more information about this occupation, view the *California Occupational Guide*.

Internists in California

Common Occupational Titles: Attending Physicians, Doctors of Osteopathy (DO), General Internists, Internal Medicine Doctors, Internal Medicine Physicians, Medical Doctors (MD), and Physicians.

What Would I Do?

Internists are physicians who diagnose, treat, and manage diseases, disorders, and injuries of internal organ systems such as the respiratory, vascular, and digestive systems. They examine patients, take medical histories, prescribe medications, and order, perform, and interpret diagnostic tests. They may also educate patients on wellness promotion through disease prevention, physical and mental health management, and dietary or lifestyle changes. When complex care is required, Internists may refer patients to other specialists.

Job Outlook and Wages

Job opportunities for Internists should be ample, due to the continued expansion of health care-related industries. Job growth may also occur due to population growth and an aging population that will require frequent medical attention.

The median wage in 2012 for Internists in California was $145,600 annually or $70.01 hourly. The median is the point at which half of the workers earn more and half earn less.

For additional information on job growth and wages, view projected growth and wages.

How Do I Qualify?

- Graduation from an accredited medical school program and completion of residency program is required.
- Applicants must pass the Medical College Admission Test (MCAT) to be admitted into medical school.
- Obtain licensure from the Medical Board of California.

For more information about this occupation, view the *California Occupational Guide*.

Optometrists in California

Common Occupational Titles: Doctors of Optometry and Optometry Doctors (OD).

What Would I Do?

Optometrists examine the eyes and other parts of the body related to vision. They also diagnose, treat, and manage diseases, injuries, and other disorders of the eyes. They prescribe eyeglasses or contact lenses. They may prescribe or provide other treatments, such as vision therapy or low-vision rehabilitation. They may also diagnose conditions caused by systemic diseases, such as diabetes and high blood pressure, referring patients to other health practitioners as needed.

Optometrists often provide pre- and postoperative care to cataract patients, as well as to patients who have had laser vision correction or other eye surgery. They also educate and counsel patients on visual hygiene, contact lens care, and may prescribe medication to treat eye diseases.

Job Outlook and Wages

Demand for Optometrists is expected to increase due to the health needs of our aging and growing population. However, most job openings will be created by the need to replace Optometrists who retire or leave the field for other reasons.

The median wage in 2012 for Optometrists in California was $91,913 annually or $44.19 hourly. The median is the point at which half of the workers earn more and half earn less.

For additional information on job growth and wages, view projected growth and wages.

How Do I Qualify?

- Graduation from an accredited four-year Doctor of Optometry program is required.
- Prior to admission to a Doctor of Optometry program, applicants must take and pass the Optometry Admission Test (OAT).
- Upon completion of the Doctor of Optometry program and the National Board of Examiners in Optometry (NBEO) examinations, graduates are then able to apply for state licensure.
- Optometrists must be licensed by the State Board of Optometry to practice in California.

For more information about this occupation, view the *California Occupational Guide*.

Pharmacists in California

Common Occupational Titles: Clinical Pharmacists, Hospital Pharmacists, Pharmacists in Charge, Registered Pharmacists, and Staff Pharmacists.

What Would I Do?

Pharmacists dispense drugs prescribed by physicians, dentists, and other health care practitioners. They also offer advice to practitioners and patients on drug selection, dosage, interactions, and side effects of medications. Some Pharmacists specialize in specific drug therapy areas, such as oncology (cancer) or geriatric pharmacy.

Job Outlook and Wages

Robust growth is expected for Pharmacists due to the increasing medication needs of our growing and aging population. In addition, with advances in science, the need for Pharmacists should grow as more pharmaceuticals become available to treat a greater number of conditions.

The median wage in 2012 for Pharmacists in California was $130,563 annually or $62.77 hourly. The median is the point at which half of the workers earn more and half earn less.

For additional information on job growth and wages, view projected growth and wages.

How Do I Qualify?

- A bachelor's (B.S.) or a doctorate (Pharm.D.) degree from an accredited college of pharmacy program approved by the Accreditation Council for Pharmacy Education (ACPE).
- Complete 1,500 hours of pharmacy practice experience or licensure as a pharmacist in another state for at least one year.
- Successful completion of the North American Pharmacist Licensure Examination (NAPLEX) and the California Pharmacist Jurisprudence Examination (CPJE).
- Obtain licensure from the California Department of Consumer Affairs, Board of Pharmacy.

For more information about this occupation, view the *California Occupational Guide*.

Physical Therapists in California

Common Occupational Titles: Pediatric Physical Therapists, Pulmonary Physical Therapists, Sports Physical Therapists, and Physiotherapists.

What Would I Do?

Physical Therapists are licensed health care professionals who help patients increase strength, flexibility, and range of motion; improve mobility; and relieve pain due to injury or disabling conditions such as arthritis or stroke. They establish a plan of care and administer treatments using a variety of methods including stretching maneuvers, hands-on therapy, hot packs or cold compresses, ultrasound, or electrical stimulation. They may show patients a variety of exercises to do at home to expedite recovery. Therapists may also teach patients to use devices such as crutches, prostheses, and wheelchairs. Some Physical Therapists specialize in particular fields, such as orthopedics or geriatrics.

Job Outlook and Wages

The demand for Physical Therapists is expected to increase due to growth in the general and aging population, as well as the widespread interest in health and sports medicine.

The median wage in 2012 for Physical Therapists in California was $87,194 annually or $41.92 hourly. The median is the point at which half of the workers earn more and half earn less.

For additional information on job growth and wages, view projected growth and wages.

How Do I Qualify?

- A master's degree in physical therapy from an accredited postsecondary institution and internship is the minimum educational requirement.
- Obtain licensure from the California Department of Consumer Affairs, Physical Therapy Board of California (PTBC).

For more information about this occupation, view the *California Occupational Guide*.

Dietitians and Nutritionists in California

Common Occupational Titles: Diet Consultants and Registered Dietitians.

Specialties within this occupation include: Clinical Dietitians, Community Dietitians, Consultant Dietitians, Management Dietitians, Gerontological Nutrition Dietitians, Oncology Nutrition Dietitians, and Pediatric Clinical Dietitians.

What Would I Do?

Dietitians and Nutritionists plan food and nutrition programs, supervise meal preparation, and oversee the serving of meals. They try to help people prevent and treat illnesses by promoting healthy eating habits and recommending dietary modifications. For example, Dietitians might teach a patient with high blood pressure how to use less salt when preparing meals or create a diet reduced in fat and sugar.

Dietitians also manage food service systems for institutions such as hospitals and schools. Some promote sound eating habits through education programs, while others conduct research. Many Dietitians specialize in becoming Clinical Dietitians, Community Dietitians, Management Dietitians, or Consultants.

Job Outlook and Wages

A growing and aging population will increase demand for nutritional counseling and treatment in health care facilities and community health programs. Growing public interest in nutrition also will spur demand, especially in food service management.

The median wage in 2012 for Dietitians and Nutritionists in California was $68,621 annually or $32.99 hourly. The median is the point at which half of the workers earn more and half earn less.

For additional information on job growth and wages, view projected growth and wages.

How Do I Qualify?

- A bachelor's degree in dietetics, foods and nutrition, food service management, or a related area is the minimum education required.
- Many employers, particularly in the medical and health care fields, require new applicants to be registered Dietitians through the Commission on Dietetic Registration of the American Dietetic Association.
- Employers generally prefer candidates with at least one year of professional experience, but some may accept an internship in lieu of the required work experience.

For more information about this occupation, view the *California Occupational Guide*.

Medical and Clinical Laboratory Technologists in California

Common Occupational Titles: Clinical Laboratory Scientists, Lab Technologists, Medical Laboratory Scientists, and Medical Technologists.

Specialties within this occupation include: Cytogenetic Technologists, Cytotechnologists, and Histotechnologists.

What Would I Do?

Medical and Clinical Laboratory Technologists perform complex tests and laboratory procedures. They type and cross-match blood samples for transfusions and examine bodily fluids and tissue samples to determine the presence of bacteria, parasites, or other microorganisms. They also analyze samples for chemical content to determine concentrations of compounds, such as blood glucose and cholesterol levels. They may also develop and modify procedures as well as establish and monitor programs to ensure the accuracy of tests. Experienced Technologists may supervise other laboratory personnel.

Job Outlook and Wages

Employment opportunities for Medical and Clinical Laboratory Technologists are expected to grow; however, most job openings will likely be created from the need to replace Technologists who retire or leave the field for other reasons.

The median wage in 2012 for Medical and Clinical Laboratory Technologists in California was $81,068 annually or $38.97 hourly. The median is the point at which half of the workers earn more and half earn less.

For additional information on job growth and wages, view projected growth and wages.

How Do I Qualify?

- The minimum education requirement for entry-level jobs is a bachelor's degree in medical technology or in one of the life sciences.
- Technologists must also obtain licensure from the California Department of Public Health.

For more information about this occupation, view the *California Occupational Guide*.

Medical and Health Services Managers in California

Common Occupational Titles: Clinical Directors, Directors of Health Services, Directors of Nursing, Health Care Administrators, Health Information Administrators, Hospital Directors, Medical Directors, and Public Health Administrators.

Specialties within this occupation include: Assisted Living and Senior Housing Managers, Charge Nurse Specialists, Histocompatibility Laboratory Directors, Home Health Directors, Infection Control Specialists, Long-Term Care Nurse Managers, Quality Assurance Specialists, Resident Assessment Specialists, and Staff Development Specialists.

What Would I Do?

Medical and Health Services Managers plan, direct, and coordinate clinical and health services in hospitals, clinics, managed care organizations, public health agencies, or other health care facilities. They establish and implement policies, objectives, and procedures; evaluate personnel and work quality; conduct and administer fiscal operations; as well as coordinate activities with the medical staff and other managers. Some manage an entire facility, while others may manage a specific department or a medical practice group of physicians.

Job Outlook and Wages

As the health care industry grows, Medical and Health Services Managers will be needed to organize and manage medical information and staff. In addition, many job openings will likely be created from the need to replace Managers who retire or leave the field for other reasons.

The median wage in 2012 for Medical and Health Services Managers in California was $101,695 annually or $48.89 hourly. The median is the point at which half of the workers earn more and half earn less.

For additional information on job growth and wages, view projected growth and wages.

How Do I Qualify?

- A bachelor's degree is the minimum educational requirement for some entry-level jobs.
- Most Medical and Health Services Managers have a master's degree in health services administration, health sciences, public health, public administration, or business administration.
- Those who manage histocompatibility laboratories or nursing care facilities require licensure from the California Department of Public Health.

For more information about this occupation, view the *California Occupational Guide*.

Occupational Therapists in California

Common Occupational Titles: Independent Living Specialists, Industrial Rehabilitation Consultants, Industrial Therapists, Registered Occupational Therapists, Staff Therapists, and Vocational Rehabilitation Specialists.

What Would I Do?

Occupational Therapists assist people of all ages, from infants and toddlers to the elderly. They help those with mental, developmental, and permanent physical disabilities, or temporary injuries to develop or recover their daily living, work, and social skills. They frequently work with other health care professionals to develop a rehabilitation plan that meets the patient's physical and psychological needs.

Job Outlook and Wages

Demand for Occupational Therapists is expected to increase due to the health needs of our growing population. In addition, as our population ages, people are at a greater risk for disease- or injury-related disabilities that can often be helped by therapeutic intervention.

The median wage in 2012 for Occupational Therapists in California was $86,960 annually or $41.81 hourly. The median is the point at which half of the workers earn more and half earn less.

For additional information on job growth and wages, view projected growth and wages.

How Do I Qualify?

- A master's degree in occupational therapy from an accredited postsecondary institution is the minimum educational requirement.
- Occupational Therapists must be licensed by the California Department of Consumer Affairs, Board of Occupational Therapy.

For more information about this occupation, view the *California Occupational Guide*.

Physician Assistants in California

Common Occupational Titles: Certified Physician's Assistants, and Physician Assistants–Certified (PA-C).

Specialties within this occupation include: Anesthesiologist Assistants, Family Practice Physician Assistants, Orthopedic Physician Assistants, and Pediatric Physician Assistants.

What Would I Do?

Under the direct supervision of a physician or surgeon, Physician Assistants (PA) examine, diagnose, and treat patient injuries and illnesses. They perform routine tasks, which allow doctors more time to treat seriously ill patients. PAs take medical histories, give physical examinations, order laboratory tests, and prescribe medications. They also perform routine medical procedures, such as give injections, clean and stitch minor wounds, and set broken bones.

Job Outlook and Wages

Demand for PAs is expected to increase substantially as health care institutions increasingly use PAs as a cost-effective alternative to physicians. Job opportunities for PAs should also be good in rural areas because these settings typically have difficulty attracting physicians.

The median wage in 2012 for Physician Assistants in California was $95,207 annually or $45.77 hourly. The median is the point at which half of the workers earn more and half earn less.

For additional information on job growth and wages, view projected growth and wages.

How Do I Qualify?

- Complete a Physician Assistant program from an approved school.
- Take and pass the Physician Assistant National Certifying Examination (PANCE).
- Obtain licensure from the California Department of Consumer Affairs, Physician Assistant Board.

For more information about this occupation, view the *California Occupational Guide*.

Cardiovascular Technologists and Technicians in California

Common Occupational Titles: Electrocardiogram (EKG) Technicians and Electrocardiograph Technicians.

Specialties within this occupation include: Cardiac Technicians, Cardiographers, Cardiology Technologists, Cardiopulmonary Technologists, Echocardiographers, Perfusionists, Cardiac Sonographers, and Vascular Technologists.

What Would I Do?

Cardiovascular Technologists and Technicians assist physicians in diagnosing and treating cardiac (heart) and vascular (blood vessel) ailments. They perform ultrasound or cardiovascular procedures, schedule appointments, review doctors' interpretations and patient files, and monitor patient heart rates. They also operate and maintain testing equipment, explain test procedures, and compare findings to normal standards in order to identify problems.

Technicians perform electrocardiograms, treadmill stress tests, and Holter monitoring. Technologists take vascular sonograms or assist with cardiac catheterization. They also monitor patients during open-heart surgery and during the insertion of pacemakers and stents that open up blockages in arteries to the heart and major blood vessels.

Job Outlook and Wages

Robust employment growth is projected for this occupation due to the health needs of our aging and growing population. Demand will also be spurred by improvements in technology requiring trained individuals to operate complicated equipment. Specialty areas, such as echocardiography, are particularly expected to grow. Those who have multiple skills will have better job prospects.

The median wage in 2012 for Cardiovascular Technologists and Technicians in California was $57,631 annually or $27.71 hourly. The median is the point at which half of the workers earn more and half earn less.

For additional information on job growth and wages, view projected growth and wages.

How Do I Qualify?

- A high school diploma or equivalent is generally required.
- One-year certificate training programs, hospitals, and clinics offer training for basic EKG testing, stress testing, and Holter monitoring.
- Many Cardiovascular Technicians and Technologists have associate's degrees. However, four-year programs are becoming increasingly available.

For more information about this occupation, view the *California Occupational Guide*.

Dental Hygienists in California

Common Occupational Titles: Hygienists and Registered Dental Hygienists (RDH).

What Would I Do?

Dental Hygienists work together with dentists, dental assistants, and dental technicians to prevent and control gum disease and the development of tooth decay. They remove plaque and clean and polish teeth. They apply decay preventive agents such as fluorides and sealants, and take digital and x-ray images, and develop dental x-ray film.

Hygienists teach patients good oral hygiene practices and examine the mouth for disease. They screen patients, chart medical and dental histories, and record patients' conditions of decay and disease for diagnosis and treatment by dentists. They may also provide nutritional counseling and instruct patients on how to take care of their teeth so they can last a lifetime.

Although Dental Hygienists do not diagnose dental problems, with experience, they may be entrusted with greater responsibility. They may administer anesthesia for pain control and prepare clinical and laboratory diagnostic tests for interpretation by dentists.

Job Outlook and Wages

Employment of Dental Hygienists is expected to grow as a result of an overall increase in demand for dental services, an aging and growing population, and due to the trend of Hygienists performing services formerly done by dentists. In addition, as dentists' workloads increase, more Hygienists may be hired to provide preventive dental care, freeing dentists to perform more complex dental procedures.

The median wage in 2012 for Dental Hygienists in California was $96,317 annually or $46.31 hourly. The median is the point at which half of the workers earn more and half earn less.

For additional information on job growth and wages, view projected growth and wages.

How Do I Qualify?

- Associate's degree programs at community colleges, technical colleges, dental schools, or universities are available.
- Dental Hygienists are required to take national and state licensure examinations and work in a dental office prior to obtaining their licenses.
- Hygienists must be licensed by the Dental Board of California in order to work in the State of California.
- Some Dental Hygienists go on to get their bachelor's and master's degrees in order to do research or teach.

For more information about this occupation, view the *California Occupational Guide*.

Diagnostic Medical Sonographers in California

Common Occupational Titles: Registered Diagnostic Sonographers, Sonographers, Ultrasound Technicians, and Ultrasound Technologists.

Specialties within this occupation include: Abdominal Sonographers, Breast Sonographers, Gynecologic Sonographers, Neurosonographers, Obstetric Sonographers, and Ophthalmic Sonographers.

What Would I Do?

Diagnostic Medical Sonographers use special imaging equipment that directs high-frequency sound waves into areas of a patient's body. The equipment collects reflected echoes and forms an image that may be videotaped, transmitted, or photographed for interpretation and diagnosis by a physician. This procedure is commonly known as an ultrasound, sonogram, or echocardiogram.

Sonographers explain the procedure to the patient and record any medical history that may be relevant to the condition being viewed. Sonographers usually spread a gel on the skin to aid the transmission of sound waves. They then select appropriate equipment settings and direct the patient to move into positions that will provide the best view. Sonographers use a transducer, which transmits and receives sound waves to look for subtle visual cues that contrast healthy areas from unhealthy ones. They decide whether the images are satisfactory for diagnostic purposes and select the best ones to submit for physician review.

Job Outlook and Wages

Robust employment growth is projected as sonography becomes increasingly attractive to those seeking an alternative to x-rays. Sonographic technology is expected to evolve rapidly and to spawn many new sonography procedures, such as 3D- and 4D- or "real-time" sonography for use in obstetric and ophthalmic diagnoses.

The median wage in 2012 for Diagnostic Medical Sonographers in California was $83,540 annually or $40.17 hourly. The median is the point at which half of the workers earn more and half earn less.

For additional information on job growth and wages, view projected growth and wages.

How Do I Qualify?

- An associate's degree is typically the minimum educational requirement.
- Many employers require professional certification.

For more information about this occupation, view the *California Occupational Guide*.

Emergency Medical Technicians and Paramedics in California

Common Occupational Titles: Emergency Medical Technicians **(**EMTs), First Responders, and Flight Paramedics.

What Would I Do?

Emergency Medical Technicians (EMTs) and Paramedics are skilled medical workers who are sent to emergencies by specially trained dispatchers to care for and transport the sick or injured to a medical facility. EMTs examine victims to determine the nature and extent of injury or illness and administer first aid and emergency basic life support, such as giving oxygen and doing cardiopulmonary resuscitation. Working in teams, one EMT drives while the other monitors the patient's vital signs and gives additional care as needed.

There are three classifications of EMT. The EMT-I administers first aid and emergency basic life support. The EMT-II performs the same tasks required of the EMT-I in addition to more complex procedures. The Paramedic (EMT-P) is the most highly trained and performs the most extensive pre-hospital care.

Job Outlook and Wages

Demand for EMTs may increase as the population ages and becomes more likely to have medical emergencies.

The median wage in 2012 for EMTs and Paramedics in California was $31,578 annually or $15.19 hourly. The median is the point at which half of the workers earn more and half earn less.

For additional information on job growth and wages, view projected growth and wages.

How Do I Qualify?

- A high school diploma or equivalent is usually required to enter a formal emergency medical technician training program.
- Formal training and a certification process are required.
- An examination offered by the National Registry of Emergency Medical Technicians (NREMT) is required to obtain a license issued by the California Emergency Medical Services Authority (EMSA).

For more information about this occupation, view the *California Occupational Guide*.

Licensed Vocational Nurses in California

Common Occupational Titles: Charge Nurses, Clinic Nurses, Home Health Nurses, Licensed Practical Nurses, Nursing Technicians, Office Nurses, and Private Duty Nurses.

What Would I Do?

Licensed Vocational Nurses (LVN) provide basic, bedside nursing care for sick, injured, convalescing, elderly, and physically or mentally disabled persons. They work as part of a health care team under the direction of a physician or registered nurse. LVNs observe patients, perform basic assessments, and report and document changes in a patient's condition. They also measure vital signs, perform medical treatments, and administer prescribed medications. Licensed Vocational Nurses may collect samples and perform routine laboratory tests, feed patients, and record food and fluid intake and output. Some help deliver, care for, and feed newborn babies. They may also perform intravenous therapy or blood withdrawal.

Job Outlook and Wages

Demand for LVNs is expected to increase due to the health needs of our aging and growing population, as well as the expansion of health care programs.

The median wage in 2012 for Licensed Vocational Nurses in California was $51,760 annually or $24.88 hourly. The median is the point at which half of the workers earn more and half earn less.

For additional information on job growth and wages, view projected growth and wages.

How Do I Qualify?

- Licensed Vocational Nurses must complete an accredited vocation nursing program and be licensed to work in California.
- Alternate education methods include 51 months of paid bedside nursing experience along with completion of an approved pharmacology course, and an armed forces course of study and training along with 12 months bedside patient care experience.
- Obtain licensure from the California Department of Consumer Affairs, Bureau of Vocational Nursing and Psychiatric Technicians (BVNPT).

For more information about this occupation, view the *California Occupational Guide*.

Medical and Clinical Laboratory Technicians in California

Common Occupational Titles: Laboratory Assistants, Laboratory Associates, Laboratory Technicians, Medical Laboratory Technicians (MLT), and Toxicology Laboratory Technicians.

What Would I Do?

Medical and Clinical Laboratory Technicians typically work under the supervision of medical laboratory technologists or laboratory managers. They perform routine medical laboratory tests for the diagnosis, treatment, and prevention of disease. They collect, examine, and analyze bodily fluids, tissue samples, blood, and other substances using a variety of techniques to detect bacteria, viruses, fungus cells, cancer cells, and other agents of disease.

Job Outlook and Wages

Employment opportunities for Medical and Clinical Laboratory Technicians are expected to grow; however, most job openings will likely be created from the need to replace Technicians who retire or leave the field for other reasons.

The median wage in 2012 for Medical and Clinical Laboratory Technicians in California was $40,799 annually or $19.61 hourly. The median is the point at which half of the workers earn more and half earn less.

For additional information on job growth and wages, view projected growth and wages.

How Do I Qualify?

- An associate's degree in chemical, physical, biological, or clinical laboratory science, and
- Graduation from a medical laboratory technician training program recognized by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS), the California Department of Public Health (CDPH), or the United States military,
- Meet admission requirements for the clinical laboratory scientist licensing examination as determined by the CDPH, or
- Completion of three years (within the past five years) experience as an MLT or a clinical laboratory scientist in either a California physician's office laboratory or a U.S.-owned and operated clinical laboratory.
- Licensure from the California Department of Public Health.

For more information about this occupation, view the *California Occupational Guide*.

Medical Records and Health Information Technicians in California

Common Occupational Titles: Clinical Data Specialists, Health Information Analysts, Health Information Management Technicians, Health Information Systems Technicians, Medical Record Technicians, and Registered Health Information Technicians (RHIT).

What Would I Do?

Medical Records and Health Information Technicians manage patient information and health care data ensuring privacy and security of protected health information and compliance with electronic data interchange standards. They make sure electronic patient health information, such as medical histories, physical examinations, diagnostic testing, therapeutic interventions, and physician office visits is accessible, accurate, and secure. Technicians capture, store, code, monitor, maintain, analyze, protect, and release health information for a wide range of purposes across many health care settings.

Job Outlook and Wages

Health Information Technicians should have additional job opportunities due to an increased demand for detailed medical records. Those with a health information clinical coding background will especially be in demand. More Technicians will be needed to handle increasing governmental data requirements, data interchange for reimbursement by providers, and the growth of managed care organizations. The aging population should also help fuel job growth.

The median wage in 2012 for Health Information Technicians in California was $37,923 annually or $18.23 hourly. The median is the point at which half of the workers earn more and half earn less.

For additional information on job growth and wages, view projected growth and wages.

How Do I Qualify?

- A high school diploma or the equivalent is required.
- An associate's degree in health information technology from a community college or private college accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM).
- Some employers prefer candidates with health care experience.

For more information about this occupation, view the *California Occupational Guide*.

Physical Therapist Aides in California

Common Occupational Titles: Physical Therapy Aides; Physical Therapy Attendants, Rehab Therapy Aides, Rehabilitation Aides, and Rehabilitation Technicians.

What Would I Do?

Physical Therapist Aides work under the direct supervision of a physical therapist. They prepare equipment and patients for physical therapy sessions. Aides provide support to patients who require assistance with changing positions or moving on and off therapy equipment. They may also order supplies, answer phones, and fill out insurance forms.

Job Outlook and Wages

The demand for Physical Therapist Aides is expected to increase due to growth in the general and aging population who may be more vulnerable to conditions that require therapeutic services, as well as the widespread interest in health and sports medicine.

The median wage in 2012 for Physical Therapist Aides in California was $26,165 annually or $12.58 hourly. The median is the point at which half of the workers earn more and half earn less.

For additional information on job growth and wages, view projected growth and wages.

How Do I Qualify?

- The minimum educational requirement is a high school diploma or the equivalent along with moderate on-the-job training.
- Some employers may require candidates to pass a drug and background check, as well as a physical evaluation.

For more information about these occupations, view the *California Occupational Guide*.

Physical Therapist Assistants in California

Common Occupational Titles: Physical Therapy Assistants (PTAs), Physical Therapy Technicians, and Licensed Physical Therapist Assistants (LPTAs).

What Would I Do?

Physical Therapist Assistants help physical therapists provide treatment that improves mobility, relieves pain, and prevents or lessens physical disabilities for accident victims and individuals with disabling conditions such as lower back pain, arthritis, heart disease, fractures, and head injuries. They record the patient's responses to treatment and report the outcome of each treatment to the physical therapist.

Assistants may also participate in the development of treatment plans; put on and remove supportive devices such as braces, splints, or slings; and document the progress of treatment. Assistants modify specific treatments in accordance with patient status and within the scope of treatment plans established by a physical therapist.

Job Outlook and Wages

Job prospects for Physical Therapist Assistants are expected to be very good because of increasing consumer demand for physical therapy services. Specifically, long-term demand for Assistants should continue to rise as the number of individuals with disabilities or limited function grows. The increasing number of people who need therapy reflects, in part, the growing elderly population. This population is particularly vulnerable to conditions that require therapeutic services. They often need additional assistance in their treatment, making the roles of Assistants vital.

The median wage in 2012 for Physical Therapist Assistants in California was $58,643 annually or $28.19 hourly. The median is the point at which half of the workers earn more and half earn less.

For additional information on job growth and wages, view projected growth and wages.

How Do I Qualify?

- A high school diploma or the equivalent.
- An associate's degree from an accredited physical therapist assistant program approved by the Physical Therapy Board of California.
- Physical Therapist Assistants must pass an examination and be licensed in order to practice in the State of California.
- Obtain licensure from the California Department of Consumer Affairs, Physical Therapy Board of California (PTBC).

For more information about this occupation, view the *California Occupational Guide*.

Psychiatric Technicians in California

Common Occupational Titles: Behavioral Health Technicians, Licensed Psychiatric Technicians (LPT), Mental Health Assistants (MHA), Mental Health Associates, Mental Health Technicians (MHT), and Mental Health Workers.

What Would I Do?

Following physician instructions and hospital procedures, Psychiatric Technicians provide nursing, psychiatric, and personal care for persons with mental, emotional, and developmental disabilities. Psychiatric Technicians assist clients in rehabilitation and treatment programs, help patients with personal hygiene, and administer medications.

Psychiatric Technicians report unusual behavior or physical ailments to medical staff. They encourage patients to develop work and social skills so that patients can participate in their community. Technicians assist patients in therapeutic activities and teach patients strategies to achieve independence.

Job Outlook and Wages

As our population ages and people live longer, mental health care for illnesses such as dementia is likely to contribute to employment growth for Psychiatric Technicians. Most job openings will occur due to the need to replace workers who retire, transfer to other occupations, leave the labor force, or move.

The median wage in 2012 for psychiatric technicians in California was $53,623 annually or $25.78 hourly. The median is the point at which half of the workers earn more and half earn less.

For additional information on job growth and wages, view projected growth and wages.

How Do I Qualify?

There are three pathways to become a psychiatric technician:

- Graduation from an accredited Psychiatric Technician program.
- Completion of education and experience as designated by the California Board of Vocational Nursing and Psychiatric Technicians (BVNPT) or completion of education and experience in the U.S. Armed Forces.
- Technicians must also obtain licensure from the BVNPT.

For more information about this occupation, view the *California Occupational Guide*.

Radiologic Technologists and Technicians in California

Common Occupational Titles: Radiographers, Diagnostic Radiologic Technologists, Therapeutic Radiologic Technologists, Fluoroscopy Radiologic Technologists, Radiation Therapists, CAT Scan Operators, and X-ray Technicians.

What Would I Do?

Radiologic Technologists and Technicians work with physicians, particularly radiologists, and other health care professionals to perform x-rays, operate diagnostic machinery, and prepare patients for examinations. Technologists are generally qualified to x-ray any part of the body; whereas, Technicians may be permitted to x-ray a very limited range of body parts.

Technologists and Technicians explain procedures and position patients to x-ray parts of the body appropriately. They position the x-ray equipment, set controls on the equipment, and take the x-ray. After this process is complete, they remove the film, develop it, and then send it to the doctor with their observations. In some cases, x-ray data is entered into a computer system.

Job Outlook and Wages

Employment growth of Radiologic Technologists and Technicians will occur because of a growing and aging population and the increased demand for diagnostic imaging.

The median wage in 2012 for Radiologic Technologists and Technicians in California was $69,409 annually or $33.37 hourly. The median is the point at which half of the workers earn more and half earn less.

For additional information on job growth and wages, view projected growth and wages.

How Do I Qualify?

- A high school diploma is usually required to enter a formal educational program approved by the California Department of Public Health, Radiological Health Branch.
- Radiologic Technologists generally obtain a two-year associate's degree in Radiologic Technology and must also pass an examination for certification.
- Radiologic Technicians typically complete a shorter educational program than a Technologist.
- The Technician program grants a diploma and prepares students to take one of two California State examinations for certification.

For more information about this occupation, view the *California Occupational Guide*.

Registered Nurses in California

Common Occupational Titles: Nurse Administrators, Nurse Supervisors, Nurse Educators, Staff Nurses, and Charge Nurses.

Specialties within this occupation include: Clinical Nurse Specialists, Hospital Nurses, Office Nurses, Home Health Care Nurses, and Public Health Nurses.

What Would I Do?

Registered Nurses (RN) are the largest group among all the health care occupations. Most RNs work in acute care hospitals but some care for patients in clinics or work in private homes. They evaluate patients' health problems and needs and provide nursing care to ill, injured, convalescing, or patients with a disability. Nurses record patients' medical histories and symptoms and administer treatment and medications. They help perform diagnostic tests, analyze results, and may advise patients on health maintenance and disease prevention. Registered Nurses develop and apply nursing care plans and maintain medical records. They educate patients and the public about various medical conditions. They also assist with patient follow-up and rehabilitation and provide advice and emotional support to the patients' family members.

Registered Nurses can specialize in one or more patient care specialties. The most common specialties can be divided into four categories: by work setting or type of treatment; disease, ailment, or condition; organ or body system type; and population.

Job Outlook and Wages

Employment is expected to grow primarily due to an increased emphasis on preventive care as well as the expanding and aging population who will demand more health care services as they live longer, more active lives than previous generations. In addition, implementation of the Affordable Care Act should increase opportunities for Nurses.

The median wage in 2012 for Registered Nurses in California was $89,577 annually or $43.06 hourly. The median is the point at which half of the workers earn more and half earn less.

For additional information on job growth and wages, view projected growth and wages.

How Do I Qualify?

- An associate's degree is typically the minimum educational requirement.
- Some nursing specialties require advanced degrees.
- Nurses must be licensed by the California Department of Consumer Affairs, Board of Registered Nurses.

For more information about this occupation, view the *California Occupational Guide*.

Respiratory Therapists in California

Common Occupational Titles: Certified Respiratory Therapists, Registered Respiratory Therapists, and Respiratory Care Practitioners.

What Would I Do?

Respiratory Therapists (RTs) evaluate, treat, and care for patients with breathing or other cardiopulmonary disorders. Practicing under the direction of a physician, RTs frequently assume primary responsibility for all respiratory care, therapeutic treatments, and diagnostic procedures.

Respiratory Therapists evaluate and treat all types of patients, ranging from premature infants to the elderly. Therapists provide temporary relief to patients with chronic asthma or emphysema and give emergency care to heart attack, stroke, and shock victims. RTs also monitor patients' responses to therapy, checking on vital signs, arterial blood gases, and blood chemistry changes, and consult with a physician if adverse reactions occur.

Job Outlook and Wages

Employment of RTs is expected to grow as a result of an overall increased demand for health care services. Demand for RTs is also expected to come from the quickly growing middle-aged and elderly population which will heighten the incidence of cardiopulmonary disease. The expanding role of RTs in case management, disease prevention, emergency care, and the early detection of pulmonary disorders may also lead to more opportunities for aspiring RTs.

The median wage in 2012 for Respiratory Therapists in California was $70,318 annually or $33.80 hourly. The median is the point at which half of the workers earn more and half earn less.

For additional information on job growth and wages, view projected growth and wages.

How Do I Qualify?

- An associate's degree with specific training in respiratory care is required.
- Most programs award an associate's or bachelor's degrees and prepare graduates for jobs as advanced Respiratory Therapists.
- Recent experience, in addition to the required license and certification, is preferred by employers.
- Respiratory Therapists must meet requirements for certification from the National Board for Respiratory Care (NBRC) and be licensed to work in California.
- Most employers also require a Cardiopulmonary Resuscitation (CPR) certification.

For more information about this occupation, view the *California Occupational Guide*.

Surgical Technologists in California

Common Occupational Titles: Certified Surgical Technologists, Scrub Technicians, Surgery Technicians, and Surgical Technicians.

What Would I Do?

Surgical Technologists work under the supervision of a surgeon to provide surgical care to patients, ensuring that invasive surgical procedures are safe and effective. Surgical Technologists possess expertise in the theory and application of sterile technique. They make sure the operating room is safe and that equipment is working properly.

They help prepare the operating room by checking supplies and equipment needed. During surgery, they pass surgical instruments and supplies to the surgeon or surgical assistant as well as hold retractors, cut sutures, and count sponges, needles, and other surgical instruments with the circulating nurse. They ensure the operating room staff is aware of any breaks in sterile technique in order to prevent a surgical site infection.

Job Outlook and Wages

Employment growth is expected for Surgical Technologists, mainly because more surgical procedures will be needed as the population grows and ages. Demand may also be spurred by technological advances used in the field.

The median wage in 2012 for Surgical Technologists in California was $50,710 annually or $24.38 hourly. The median is the point at which half of the workers earn more and half earn less.

For additional information on job growth and wages, view projected growth and wages.

How Do I Qualify?

- A high school diploma or the equivalent.
- Complete an accredited surgical technology training program and pass an exam.
- Training programs typically last from 12 to 24 months and lead to a certificate, diploma, or associate's degree.
- Background check and fingerprint clearance.
- Many employers prefer candidates to have at least one year of experience working in a hospital setting.
- Most employers prefer to hire certified Technologists.

For more information about this occupation, view the *California Occupational Guide*.

Home Health Aides in California

Common Occupational Titles: Home Care Workers, Homemaker Health Aides, Nurse Assistants, and Home Attendants.

What Would I Do?

Home Health Aides work under the supervision of a medical professional, usually a nurse. Home Health Aides care for the elderly, convalescent, or people with disabilities in the patient's own home or in a health care facility. They provide basic health-related services such as checking the client's pulse, temperature, and respiration rate.

They may change bandages, apply topical medications, or help with braces and prosthetic devices. Aides may also provide assistance with personal care such as bathing, dressing, and grooming, as well as getting into or out of a chair or bed. They keep records of services performed, the client's condition and progress, and report changes in the client's condition to the supervisor or case manager. With special training, experienced Home Health Aides may help with medical equipment such as ventilators.

Job Outlook and Wages

The demand for Home Health Aides is expected to increase substantially. As our population ages, clients increasingly rely on home care as a less expensive and more pleasant alternative to nursing homes or hospitals.

The median wage in 2012 for Home Health Aides in California was $21,712 annually or $10.44 hourly. The median is the point at which half of the workers earn more and half earn less.

For additional information on job growth and wages, view projected growth and wages.

How Do I Qualify?

- No formal education is required; however, most Home Health Aides have a high school diploma or the equivalent.
- Positions typically require short-term on-the-job training.
- Certification is required by the California Department of Health Services (DHS).

For more information about this occupation, view the *California Occupational Guide*.

Medical Assistants in California

Common Occupational Titles: Certified Medical Assistants (CMA), Chiropractor Assistants, Clinical Assistants, Medical Office Assistants, Ophthalmic Assistants, Optometric Assistants, and Registered Medical Assistants.

What Would I Do?

Medical Assistants work under the direction of health care practitioners, such as physicians, ophthalmologists, podiatrists, and chiropractors. Medical Assistants perform administrative duties, clinical duties, or both. They schedule appointments, greet patients, and maintain medical records. They prepare treatment rooms, sterilize and arrange instruments, and assist doctors with examinations and treatments. They measure and record patients' vital signs, such as blood pressure and temperature. Medical Assistants also run routine lab tests, such as urinalysis and blood counts. They may give injections or perform 'finger sticks' to draw small amounts of blood if they are properly trained.

Job Outlook and Wages

Demand for Medical Assistants is expected to increase due to the health needs of our aging and growing population. In addition, with the expansion of health care programs, more Medical Assistants may be needed to perform routine clinical duties, thus allowing physicians to see more patients.

The median wage in 2012 for Medical Assistants in California was $31,586 annually or $15.19 hourly. The median is the point at which half of the workers earn more and half earn less.

For additional information on job growth and wages, view projected growth and wages.

How Do I Qualify?

- The minimum education requirement is a high school diploma or the equivalent, along with moderate on-the-job training.
- Certification is not required; however, employers may prefer to hire Certified Medical Assistants.

For more information about these occupations, view the *California Occupational Guide*.

Medical Secretaries in California

Common Occupational Titles: Medical Administrative Specialists, Medical Office Receptionists, Medical Office Secretaries, Medical Receptionists, and Patient Coordinators.

What Would I Do?

Medical Secretaries provide administrative support to physicians or other health care professionals. Their work involves knowledge of medical terminology, insurance rules, billing practices, office equipment, computers, and hospital or laboratory procedures. Medical Secretaries schedule appointments, handle correspondence, bill patients, complete insurance forms, and transcribe dictation.

They may keep financial records and perform bookkeeping duties, including collections. They may record medical histories and arrange for patient hospitalization. A good understanding of grammar, punctuation, and spelling is important because Medical Secretaries may assist physicians or medical scientists with reports, speeches, articles, or conference proceedings.

Job Outlook and Wages

A robust employment growth is projected due to the expansion of health care and social assistance programs. Increased use of medical services by our aging population should also drive demand.

The median wage in 2012 for Medical Secretaries in California was $34,480 annually or $16.58 hourly. The median is the point at which half of the workers earn more and half earn less.

For additional information on job growth and wages, view projected growth and wages.

How Do I Qualify?

- A high school diploma or the equivalent is the minimum educational requirement.
- Positions typically require moderate on-the-job training.

For more information about this occupation, view the *California Occupational Guide*.

Nursing Aides, Orderlies, and Attendants in California

Common Occupational Titles: Nurse Assistants, Certified Nurse Assistants, Nurse Aides, Geriatric Aides, Hospital Attendants, Patient Care Technicians, Patient Care Orderlies, and Patient Escorts.

What Would I Do?

Nursing Aides, Orderlies, and Attendants carry out the routine work in the general care of patients. They work under the direction of nursing and medical staff. Their duties depend on training, experience, and type of health care facility. Typically, Aides answer patients' call lights, deliver messages, make beds, and help patients eat, dress, and bathe.

In California, Nursing Aides can earn the title of Certified Nurse Assistant (CNA) after state certification requirements are completed. Under the supervision of a licensed nurse, a CNA provides basic nursing services to patients in an acute care, long-term, or intermediate health care facility.

Job Outlook and Wages

The demand for Nursing Aides, Orderlies, and Attendants is expected to increase substantially due to our aging and growing population. As a result, clients will continue to need placement in nursing homes and long-term care facilities.

The median wage in 2012 for Nursing Aides, Orderlies, and Attendants in California was $27,898 annually or $13.41 hourly. The median is the point at which half of the workers earn more and half earn less.

For additional information on job growth and wages, view projected growth and wages.

How Do I Qualify?

- Some post-secondary education is required.
- Positions typically require short-term on-the-job training.
- To work in California, candidates are required to be certified as a CNA by the California Department of Health Services (DHS).

For more information about this occupation, view the *California Occupational Guide*.

Pharmacy Aides in California

Common Occupational Titles: Pharmacy Assistants, Pharmacy Cashiers, and Pharmacy Clerks.

What Would I Do?

Pharmacy Aides assist licensed pharmacists with the duties of running a pharmacy. They take inventory of prescription and over-the-counter medications. They accept prescriptions for filling as well as maintain patient records. They must keep accurate records of each patient's medications to avoid harmful drug interactions. They refer to the on-site pharmacists for any questions regarding prescriptions, drug information, or health matters.

Pharmacy Aides take inventory of prescription and over-the-counter medications and inform the pharmacist of stock needs to ensure that the pharmacy has critical medications available to meet customer needs. Aides may also answer telephones, handle money, clean pharmacy equipment, stock shelves, and prepare insurance claim forms. Some Aides help with the maintenance of equipment and supplies.

Job Outlook and Wages

Demand for Pharmacy Aides is expected to increase substantially due to the increasing medication needs of our growing and aging population, as well as the expansion of retail pharmacies and other employment settings.

The median wage in 2012 for Pharmacy Aides in California was $24,158 annually or $11.61 hourly. The median is the point at which half of the workers earn more and half earn less.

For additional information on job growth and wages, view projected growth and wages.

How Do I Qualify?

- A high school diploma or the equivalent is the minimum educational requirement.
- Positions typically require short-term on-the-job training.
- Pharmacy Aides may also be required to pass a criminal background check or obtain a Live Scan fingerprint clearance.
- Employers also prefer those with experience managing inventories and using computers.

For more information about this occupation, view the *California Occupational Guide*.

Pharmacy Technicians in California

Common Occupational Titles: Pharmacy Technologists, Pharmacy Laboratory Technicians, Pharmacist Technicians, Certified Pharmacy Technicians (CPhT), Pharmaceutical Care Associates, and Pharmacist Assistants.

What Would I Do?

Pharmacy Technicians work under the direct supervision of a licensed pharmacist. They take information needed to fill prescriptions from customers or health care professionals. They count tablets and measure, mix, and record amounts and dosages of medications. They keep track of inventory and package and label prescriptions. Those who work in medical facilities may administer medications to patients.

Job Outlook and Wages

Demand for Pharmacy Technicians is expected to increase substantially due to the increasing medication needs of our growing and aging population. In addition, with advances in science, the need for Pharmacy Technicians should grow as more pharmaceuticals become available to treat a greater number of conditions.

The median wage in 2012 for Pharmacy Technicians in California was $38,285 annually or $18.41 hourly. The median is the point at which half of the workers earn more and half earn less.

For additional information on job growth and wages, view Projected Growth and Wages.

How Do I Qualify?

- A high school diploma or the equivalent is required.
- An associate's degree in pharmacy technology.
- A training program that provides a minimum of 240 instructional hours as specified in the California Code of Regulations Title 16, section 1793.6(c).
- A training program accredited by the American Society of Health-System Pharmacists (ASHP).
- Graduation from a school of pharmacy approved by the Accreditation Council for Pharmacy Education (ACPE).
- Certification through the Pharmacy Technician Certification Board (PTCB) or training provided by the U.S. Armed Forces.
- Licensure from the California Board of Pharmacy.

For more information about this occupation, view the *California Occupational Guide*.

Health Care Resources

Below is a list of selected public and private organizations and online resources. Please note that this is not a comprehensive list and provided only to encourage the reader's further research for opportunities in health care.

California

The Agape Center
www.theagapecenter.com/Organizations/California.htm

Association of California Health Care Districts
www.achd.org

California Community Colleges Economic and Workforce Development Program, Center for Excellence
coeccc.net

California Department of Health Care Services
www.dhcs.ca.gov

California Health and Human Services Agency
www.chhs.ca.gov

California Health Line
www.californiahealthline.org

California Healthcare Foundation
www.chcf.org

California Hospital Association
www.calhospital.org

California Medical Association
www.cmanet.org

The Medical Board of California, Department of Consumer Affairs
www.mbc.ca.gov

State of California Office of Statewide Health Planning and Development
www.oshpd.ca.gov

California Workforce Investment Board, Health Workforce Development Council
www.cwib.ca.gov/sc_hwdc.htm

Henry J Kaiser Family Foundation, Education
www.kaiseredu.org

The Scan Foundation
www.thescanfoundation.org

University of California Health Sciences and Services
www.ucop.edu/health-sciences-services

University of California, Los Angeles,
Center for Health Policy Research
healthpolicy.ucla.edu/Pages/home.aspx

University of California, San Francisco,
Center for the Health Professions
futurehealth.ucsf.edu

National

U.S. Department of Health and Human Services,
Agency for Health Care Research and Quality
www.ahrq.gov

James A. Baker III Institute for Public Policy of Rice University
www.bakerinstitute.org

Center for Disease Control and Prevention,
National Center for Health Statistics
www.cdc.gov/nchs

U.S. Department of Health and Human Services,
Health Resources and Services Administration
www.hrsa.gov

These links are provided for your convenience and do not constitute an endorsement by the Employment Development Department.

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