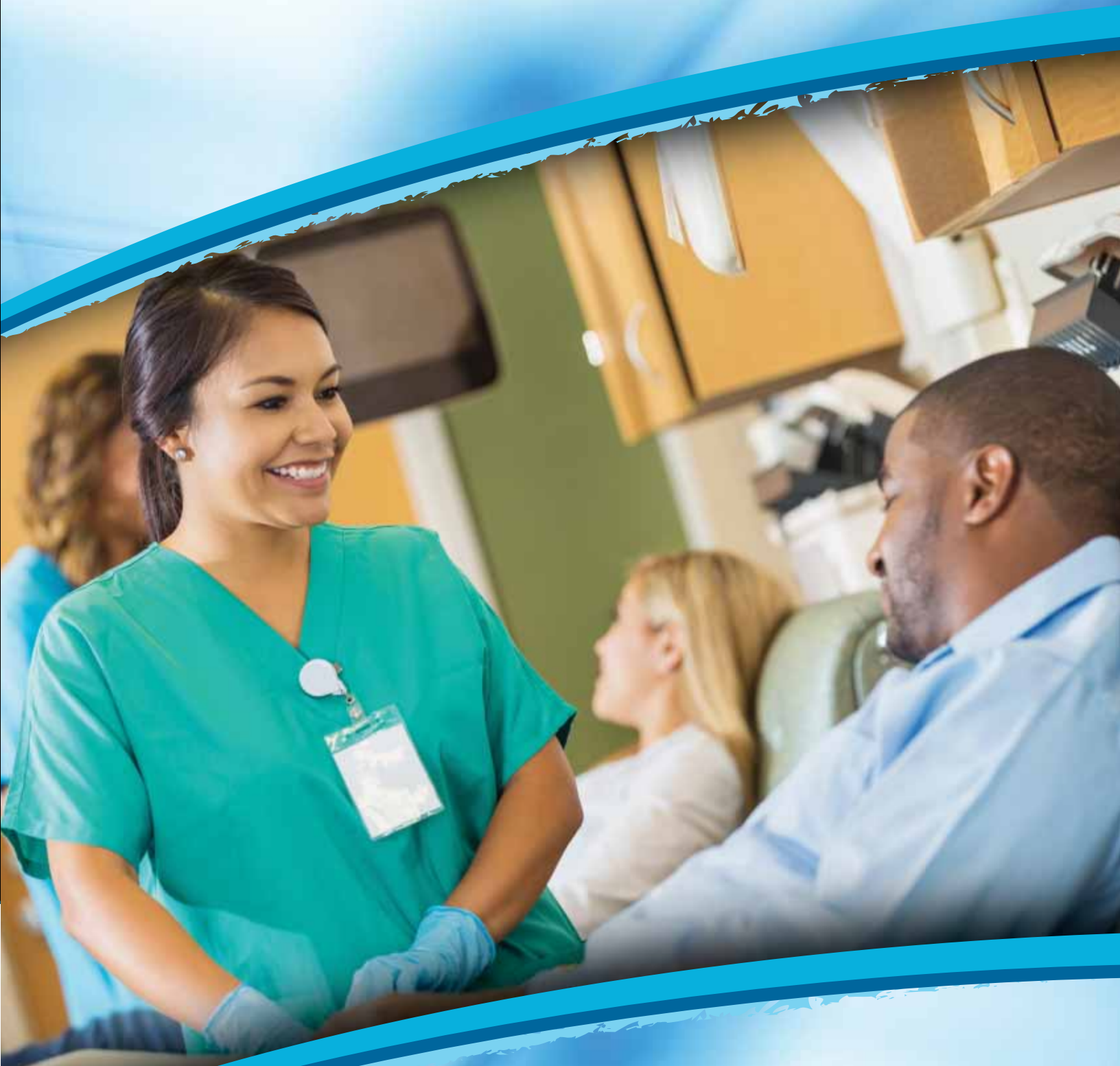


Exploring Health Careers: What Do You Want To Be?

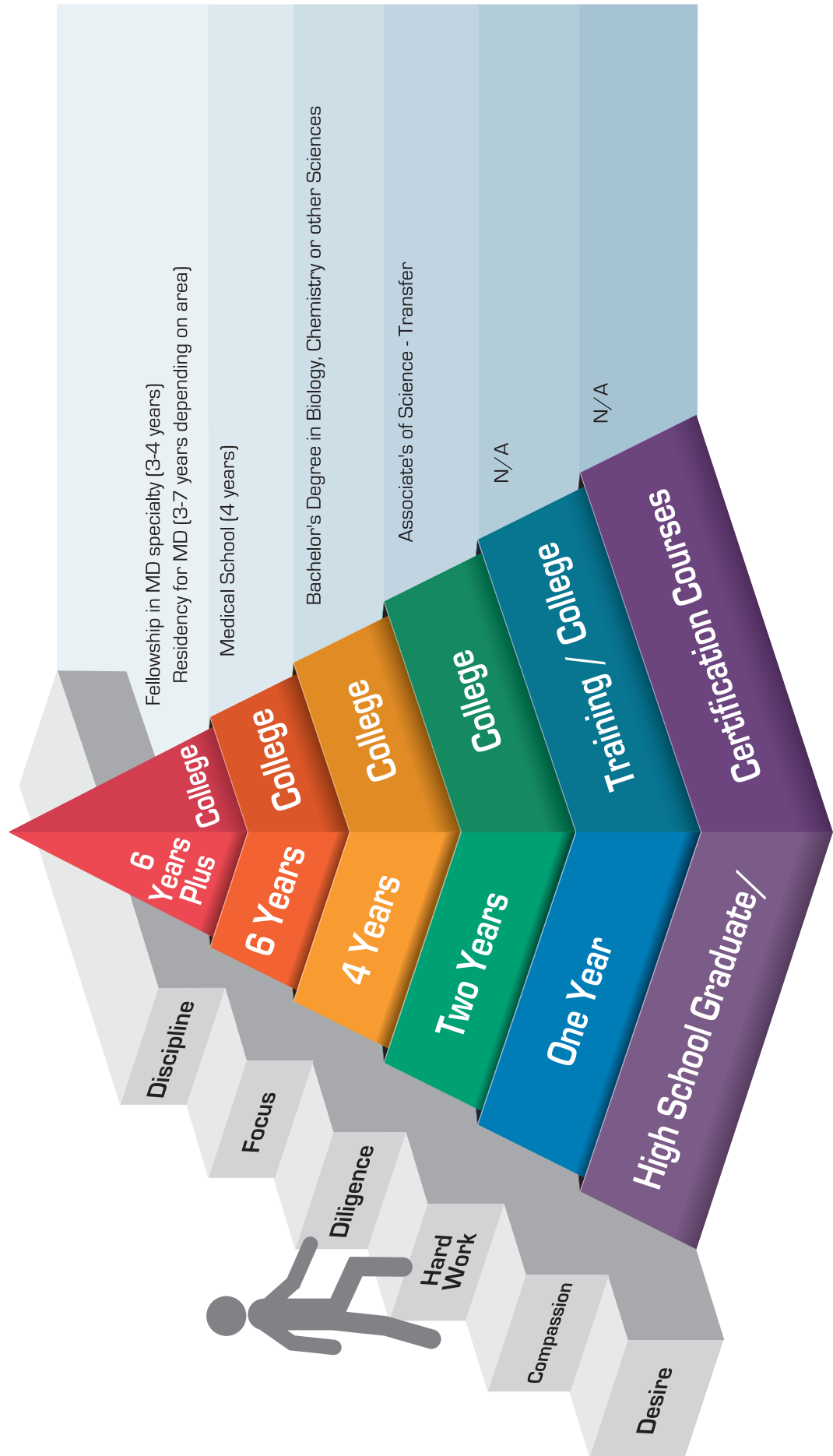


Edited by:
Valerie A. Fisher, RN, MA
Central Region Deputy Sector Navigator
Health Workforce Initiative
www.ca-hwi.org



Medical Physicians (MD or DO)

Career Pathways



MEDICAL PHYSICIANS (MD OR DO)

General Information on Becoming a Physician

Doctors provide diagnoses, treatments, and counseling to individuals with illnesses, diseases, or injuries. Some of their many responsibilities include examining patients, collecting patient information, performing diagnostic tests, and discussing test results.

Physicians fall into two main categories: medical doctors (MD) and doctors of osteopathic medicine (DO). Both types of doctors treat patients, but DOs also use preventive medicine and holistic care methods.

A career as a physician offers a variety of specialties to consider, yet the basic educational requirements are similar. It will begin with a required bachelor's degree prior to applying for medical school. Medical schools seek applicants who have a broad educational background, a solid foundation in the biological sciences and experience in healthcare settings.

Typically, during junior year of college, an aspiring doctor will take the Medical College Admissions Test or MCAT, prior to applying to medical school. Content areas that are tested on the MCAT include biology, general chemistry, organic chemistry and physics. The MCAT is a standardized examination that is also designed to assess problem solving, verbal reasoning and writing skills. Applying to medical school can be labor intensive even though there are centralized application processes for both MD & DO colleges. The average student needs to apply to at least 14 schools to gain a seat in medical school. Competition is tough and many students need to reapply the following year before being accepted.

Then it's on to medical school, lasting four years. The first two years usually entail classroom and laboratory work, while the last two years allow students to work directly with patients under the supervision of experienced doctors. Medical school coursework generally covers topics in pharmacology, pathology, anatomy and biochemistry.

The clinical experiences that students participate in (usually in their third year) cover a variety of specialty areas, including neurology, radiology, internal medicine and others. Clinical experiences also give the student a chance to find out what type of residency he or she would prefer to pursue after graduation.

After graduating from medical school, you'll start a residency program. This gives you the opportunity to work directly with patients in a specialty area of medicine. Residents may be responsible for a number of patient care activities, including developing problem lists, performing physical exams and compiling medical histories. Depending on the specialty area, a residency can last anywhere from three and seven years. Most residents usually complete their programs in acute care hospitals.

All states require physicians to become licensed before allowing them to practice medicine. Graduation from an accredited medical school is required before qualifying for licensure. Candidates must also complete a residency training program and pass written exams.

The U.S. Medical Licensing Examination (USMLE) is a three-step examination that is required for MDs. The Comprehensive Osteopathic Medical Licensing Examination (COMLEX-USA) must be taken by those seeking a DO degree. For more information about licensing, see the Medical Board of California: <http://www.mbc.ca.gov/>

Now that you understand the overall educational steps necessary to become a doctor, let's look at some of the various practices and specialties you might consider.



For Additional Information:

QR Code:

<https://www.bls.gov/ooh/healthcare/physicians-and-surgeons.htm>

Video Link:

<https://www.youtube.com/watch?v=7CfBlvjf9Wg>

Family Medicine

Job Description: Family medicine doctors, also known as family physicians, are general practitioners. Family medicine doctors are often the first person whom a patient sees when seeking healthcare services. Family medicine was created specifically to take care of the healthcare of families, and as such, family physicians are trained to take care of patients of all ages.

Typical job duties include taking patient histories, performing or requesting diagnostic tests, making diagnoses, prescribing treatment, and performing follow-up examinations; as well as educating patients in disease prevention and health maintenance. Family medicine doctors also supervise allied health professionals, such as nurses, physician assistants and medical assistants.

Educational Requirements: In addition to steps spelled out above, an aspiring family medicine doctor would require three years of family medicine residency, and passage of all Medical Licensing Examinations.

Salary Range: \$185,000 to \$198,000 per year



For Additional Information:

QR Code:

American Board of Family Medicine - <https://www.theabfm.org/index.aspx>

Video Link:

<https://www.youtube.com/watch?v=AVox6M3Um94>

Internal Medicine

Job Description: Internists are personal physicians who provide long-term, comprehensive care in the office and the hospital, managing both common and complex illnesses in adolescents, adults, and the elderly.

An internal medicine physician's primary responsibilities include health maintenance and disease screening, the diagnosis and care of acute and chronic medical conditions, management of patients with multiple, complex medical problems, and serving as consultants to other disciplines such as surgery, and family medicine. Internists are trained in the diagnosis and treatment of cancer, infections, and diseases affecting the heart, blood, kidneys, joints, and digestive, respiratory and vascular systems.

Educational Requirements: In addition to educational steps stated above, an internal medicine physician must pass the American Board of Internal Medicine's Internal Medicine Certification Examination.

Salary Range: \$196,000 to \$210,000 per year



For Additional Information:

QR Code:

American Board of Internal Medicine - <http://www.abim.org/>

Video Link:

<https://www.youtube.com/watch?v=Rhyf8o5vJw0>



General Surgeon

Job Description: Surgeons are specialized physicians who operate on patients to correct or remove malformations, repair injuries or conduct preventative procedures on patients. They may also conduct examinations on patients and advise them on their medical situations. Many surgeons specialize in one particular field, such as orthopedic, cardiovascular or neurological surgery.

Educational Requirements: After medical school, students typically continue their medical training in residency programs. General surgery residencies need five years to complete their training. Surgeons who wish to focus on a sub-specialties: orthopedic surgery, plastic surgery, or urology for example, must complete an additional 1-3 years of post-doctoral training in fellowship programs.

Salary Range: \$370,000 to \$400,000 per year



For Additional Information:

QR Code:

American Board of Surgery - <http://www.absurgery.org>

Video Link:

<https://www.youtube.com/watch?v=AveCMu5N91s>

Specialty MD: Obstetrician & Gynecologist (OB/GYN)

Job Description: Obstetrics and gynecology is a diversified specialty concerned with the delivery of medical and surgical care to women. This field combines two specialties: obstetrics, which focuses on the care of women before, during, and after childbirth; and gynecology, which involves the diagnosis and treatment of disorders of the female reproductive system, breasts, and associated disorders.

Obstetrician-gynecologists (Ob-Gyn) often serve as consultants to other physicians. In many cases, the Ob-Gyn is the primary care physician, with whom female patients have regular contact and obtain medical advice and counseling. The specialty also offers opportunities to practice other skills such as laparoscopic surgery, endocrinology, and preventive medicine.

Educational Requirements: Four-year OB/GYN residency programs are where newly graduated medical doctors can study women's reproductive health in depth under the guidance of experienced physicians. Residents complete rotations to evaluate, diagnose and administer care to patients in hospitals and other medical settings. During their residency, physicians specializing in OB/GYN care will also explore subspecialties in the field, such as family planning.

To become highly specialized in the OB/GYN field, physicians can apply for fellowship programs, which last another three years. These programs have both didactic and clinical components to give doctors the knowledge and hands-on experience they need to practice in an OB/GYN subspecialty. Some fellowship options within obstetrics and gynecology include gynecologic oncology, maternal fetal medicine and reproductive endocrinology and infertility.

Salary Range: \$268,000 to \$300,000 per year



For Additional Information:

QR Code:

<https://www.bls.gov/oes/current/oes291064.htm>

Video Link:

https://www.youtube.com/watch?v=16SGnM_hstE

Specialty MD: Emergency Medicine

Job Description: Emergency medicine is the medical specialty dedicated to the diagnosis and treatment of unforeseen illness or injury. Their primary job functions are to resuscitate or stabilize patients and refer them to the appropriate medical departments and/or specialty physicians.

Educational Requirements: Candidates for emergency medicine specialty must pass a qualifying exam and an oral exam after having completed approved residency training.

Salary Range: \$282,000 to \$325,000 per year



For Additional Information:

QR Code:

American Board of Emergency Medicine - <https://www.abem.org/public/>

Video Link:

https://www.youtube.com/watch?v=46UARj0_qE4

Specialty MD: Cardiovascular Surgeon

Job Description: Often referred to as a “heart surgeon”, cardiovascular surgeons operate on your heart and blood vessels to repair damage caused by diseases or disorders of the cardiovascular system.

Cardiovascular surgeons perform many different types of operations, including heart valve repair and replacement, heart defect repair, coronary artery bypass, aneurysm repair, trans-myocardial laser revascularization, and heart transplantation. They also perform operations on the blood vessels in your body, including the aorta—the body’s main blood supplier. Heart surgery today may also include the use or implantation of ventricular assist devices (VADs), mechanical devices that “assist” the failing heart by helping it pump blood throughout the body.

Educational Requirements: After completing a general surgery residency, those who wish to become cardiovascular surgeons need to complete an additional 3 to 4-year fellowship in cardiovascular surgery. Once this training is completed, surgeon may sit for the American Board of Medical Specialties certification examination. This examination measures the expertise in diagnosis, management and treatment of patients with a variety of health conditions all related to the heart and vascular system.

Salary Range: \$445,000 to \$495,000 per year



For Additional Information:

QR Code:

American College of Cardiology - <http://www.acc.org/clinical-topics/cardiac-surgery>

Video Link:

<https://www.youtube.com/watch?v=C6NLT8wxAQo>



A Note for the Reader:

1. QR Codes – Apps to provide QR Code readers are readily available online for both Apple and Droid devices. It is highly recommended to download a few different apps until you find one that works well for you.
2. It cannot be stressed enough that if you are interested in a particular health occupation, you need to research the educational pathway on your own! While a skilled counselor can help you on your way, it is impossible for any one person to know all of the possible options in each of these occupations.
3. You are encouraged to also seek out a professional in the occupation you are interested in to interview. Make a list of questions you want to ask including if they would be willing to share their educational experience with you.
4. In general, this resource guide only addresses CA. public school options (CCC, CSU & UC) and does not include information on private educational programs and opportunities.
5. Unfortunately, most health occupations programs have a limited number of spots for admission each semester (or once a year), therefore in today's competitive world you need to be an outstanding student with excellent grades – particularly in the sciences to gain a seat in the program you are seeking. If you do not get into the program on the first try, try again! Persistence can lead to success!

A Note About Sources and References

The original intent of this resource book was to provide just enough information to the reader to initiate interest in health occupations and leave them wanting to know more about a particular area or pathway. The full intent was to utilize information and data exclusively from the Bureau of Labor Statistics (BLS) and the BLS Occupational Handbook, thus making footnotes unnecessary. However, once into the development of the book it was clear that the BLS is behind on newer and emerging health occupations thus requiring exploration into other resources for information.

While it may be said the methods used were non-academic in nature, as editor the decision was made to move the book forward toward completion instead of stalling publication to cite each and every piece of information. Also, with today's easy internet access, information contained in this book can be quickly "googled" to confirm information and/or tailor information so that it is individually pertinent or more recent.

Listed below are the main resources used for this publication in order of frequency:

1. Bureau of Labor Statistics, U.S. Department of Labor, Occupational Outlook Handbook, 2016-2017 Edition, Occupation Title Specific on the Internet at <https://www.bls.gov/ooh/healthcare.htm>
2. Summary and description of what the occupation does – from BLS (above).
3. Salary Ranges – primary information is from the Bureau of Labor Statistics, "State & Area Data – May 2016". However, it has been tailored using maps showing employment by California counties. Salary ranges in this document are for the Central Valley Region (Stockton to Bakersfield). In areas outside of this region salaries will be higher.
4. In cases where the BLS did not have occupational information and data, occupational specific professional organization websites were searched for the data needed. Often a plethora of information was found with many sites showing "career" tabs with videos. Most of these excellent resourced websites are listed in the text of this book and may or may not have a QR Code to accompany them.
5. Health occupational specific information for certificates, AS/AA degrees offered by the CA Community Colleges originates from the Health Workforce Initiatives' website – Statewide Health Occupations Directory at: www.ca-hwi.org.
6. Additional information was sometimes found by just "Googling" the occupational title. For salary information, occasionally "PayScale.com, Salary.com or Indeed.com" was used for current wage information.
7. When in doubt, or when there was confusing or conflicting information, healthcare professionals (or faculty) who work in the field were asked for confirmation and/or suggestions.

Acknowledgements:

This book would have not been possible without the efforts and support from the following individuals: Lita Wallach, Allyson Keller, Margarita Martinez, Stephanie Doria, Amelia Sweeney, Belen Kersten, Cindy DeLain, Bonnie Hunt, John Cordova, Linda Zorn, Brenda Fong and Tom Redemer.

About California's Community Colleges

Currently serving over 2.1 million students at 114 college campuses, California's Community Colleges (CCCs) are the largest system of higher education in the nation. CCCs offer a wide range of educational opportunities: basic courses in math and English, short-term certificates, vocational workforce trainings and Associate degree programs along with preparation for transfer to four year educational institutions. The CCC's were originally created with a foundational belief that higher education should be available to everyone; today the CCCs are one of the most open and accessible systems of higher education in the world.



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About the Health Workforce Initiative

The California Community Colleges Chancellor's Office in concert with the Division of Workforce and Economic Development are addressing skills and jobs mismatch while preparing California's workforce for 21st century careers. The Division collaborates with employers, organized labor, K-12 partners, and system-wide community colleges to close the skills gap and to foster successful student completion which leads to employment.

The Health Workforce Initiative is an integral part of this Division and its Doing What Matters for Jobs & the Economy campaign, investing funding and resources in industry sectors that are key to California's economic growth. Doing What Matters for Jobs & the Economy is a concerted effort among California Community Colleges to partner with business and industry while working together to find solutions to regional workforce issues pertaining to California's high growth sectors. The goals of Doing What Matters for Jobs & the Economy are to supply in-demand skilled workers for employers, create relevant career pathways and stackable credentials, promote student success and get Californians into open jobs.

This document was developed utilizing grant resources set aside by the Division of Workforce and Economic Development to engage young minds by showcasing the diversity of opportunities available in the health sector. Health careers provide good wages and flexible working schedules while simultaneously engaging one in altruistic endeavors which frequently touch the human heart.

For more information on the Health Workforce Initiative, please visit: www.ca-hwi.org





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