

Healthcare Pathways



Valley High School Health TECH Academy

Since 1993, the Health TECH Academy at Valley High School in Sacramento has been preparing students to pursue careers in healthcare. One of the goals of the program is to improve the cultural competence of health professionals in the community through a rigorous training program. Students follow a core curriculum that engages the students and teaches healthcare concepts and health issues. The program is often called the “public health academy” because of the student community projects.

The students in the academy find themselves challenged in many different ways. In addition to the basic school courses, the students learn real-life skills by participating in group projects and informing the community of important health issues. The Cultural Awareness and Community Health Education (CACHE) outreach project helps students take the next step in preparing for a healthcare career. With the mentorship of Kaiser Permanente doctors and representatives, student groups identify and research public health problems in the community specific to an ethnic or cultural group.



Juanita Delgado demonstrates eye exam procedures

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“We offer the students hands-on experience, interaction with the public, and a chance to reach out to a broader audience—it brings about a pride in service,” says John Buckmaster, Health TECH Academy Coordinator. “Students work in their own cultural groups to produce educational materials, with Kaiser doctors providing feedback and support throughout the semester.”

CACHE students have made presentations to Hispanic, Hmong, Vietnamese, Chinese, and Filipino youth communities in Sacramento. The students act as ambassadors, using their understanding of the language and culture for effective communication.

Juanita Delgado, a Health TECH Academy Junior, enjoys the challenges. She was born in Mexico, but now calls Northern California home. “It’s hard but rewarding. I want to get into the medical field and learn more about my community and my culture. I like being with kids, and pediatrics interests me. Working with the Kaiser doctors was great; they answered many of the questions I had about being a health provider, and I was able to inform others and present good information,” says Juanita.

Each year, the Academy invites all Valley High School students, parents, family members and the community to a Health and Fitness Expo to promote health and wellness.

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Why Consider A Health Career?

Students in middle school or high school have many choices. One of the toughest is the choice of careers. But the search becomes easier when you match your personal interests and motivations with your professional work. Many students decide upon a career in healthcare because of the wide variety of job opportunities. But is a health career right for you?

One of the benefits of a health career is the reward of helping others. Many people are successful in their job, but may feel disconnected to others in the community. With a job in healthcare, you can find a great fit for your natural talents and make a difference in the lives of others.

“I would like to see people get interested in jobs that help us. If we couldn’t be helped by dentists, firefighters and ambulance drivers, we would be in trouble,” says Harmony Kessler, a sixth grader at James Marshall School in Sacramento, who has been thinking about her future. ***“I am interested in becoming someone who helps others, and learning about medicine and x-rays would be cool.”***

Finding a career that matches your passions and goals is not easy and takes time. Start by thinking about your interests. Do you like computers? Teaching? Interacting with or helping others? Health careers include more than just doctors and nurses. Health careers also include laboratory work, computer and equipment technologies,



Harmony Kessler



Keirsten Palmer

individual and family counseling, management of labor and resources, and many others.

Another benefit of a health career is the promising future. According to the U.S. Department of Labor, Bureau of Labor Statistics, employment as a home health aide is expected to increase by 50% and Medical Assistant careers will see almost a 34% growth by the year 2018.

Keirsten Palmer, a tenth grader from River City High School in Sacramento knows the importance of good health. ***“Doctors help people... Without doctors and nurses, who would take care of us? Healthcare is a big deal, you know! I think kids should know about it and see the importance,”*** she noted.

If you are looking for a career in a growing field that’s full of challenges and rewards, be sure to look into a career in healthcare. You won’t regret it.

Explore health careers at the HWDD Resources Web site: www.oshpd.ca.gov/HWDD/

HealthJobsStartHere.com	Learn about interesting jobs in your area and read personal accounts of working healthcare professionals.
CareerOneStop.org	Explore careers or try a self-assessment tool; there are several to choose from!
CareerZone.org	Research jobs and find out what knowledge, skills and tasks are involved.

...“Health TECH Academy” (continued from page 1)

In 2010, more than 40 vendors participated and 2,000 people attended. A wide variety of free health screenings are offered to adults, along with aerobics, yoga, and educational materials on diabetes, nutrition and other community health issues. This event is student-driven. All booths and informational topics are planned and managed by the students.

“The event gives middle-of-the-road students a chance to stand out. Training people in underserved populations to go back and serve in their community is so important. It creates health providers and faculty that reflect the community,” relates Rodney Black, Health and Fitness Expo Coordinator.

For more information on the Health TECH Academy at Valley High School, please contact John Buckmaster at (916) 681-7576 or visit the Valley High School Web site at: <http://valleyhs.schoolloop.com/>

Learn about residency programs, fellowships, and scholarships offered by Kaiser Permanente in Northern California by visiting: http://residency.kp.org/ncal/residency_programs/index.html

Avi Borik - Future Health Administrator

Avi Borik is on track to becoming a health professional. But he won't check your reflexes or diagnose your symptoms, because his career direction will lead to health administration. As a health administrator, he hopes to work behind-the-scenes in the operational and financial aspects of healthcare—perhaps even making changes in public policies to improve community services.

Born in the Fiji Islands, Avi arrived in the United States in 1996. He was attracted to science and enrolled at San Jose State University studying biological science, physiology, and chemistry. He became interested in pharmacology and joined the University's Pre-Pharma club and the Biology club. He continued his studies, and applied to pharmacy school at Touro University.

"I am the first college graduate in my family, and am excited about the future. It is not always easy, but if you want a better life for yourself and others, you can motivate yourself and achieve what you put your mind to,"
related Avi Borik.



Avi Borik

Avi's interest in healthcare started in the Fiji Islands, when an unfortunate car accident left a cousin's arm crushed. Soon infection set in and the situation turned life-threatening. Eventually, the injured cousin was flown to Australia for amputation and soon recovered, but the experience never left Avi. He saw how the lack of quality healthcare can dramatically affect lives.

In order to learn more about the role of pharmacists in healthcare, Avi decided to volunteer at Washington Hospital in Fremont. He worked with the pharmacy clinical coordinator and learned much about patient care and day-to-day operations. Although the work was valuable, he began to look for another challenging area in healthcare.

"Working in a pharmacy was great and I learned a lot. But I soon realized that an administrative role was a better fit for me. Having the clinical experience serving patients gave me the perspective to realize what career direction I really wanted to go," recalled Avi.

Avi has recent work experience with the Office of Statewide Health Planning and Development (OSHPD) working on healthcare reform analysis. He found the work interesting and very important to the future of healthcare delivery systems in California and across the nation.

Currently studying at the University of Southern California, Avi is pursuing a Master of Science in Health Administration. He found himself interested in the role of a healthcare administrator because they look at every department and all patient services and seek to maximize operations and finances.

A hospital administrator is just one of many management positions within a hospital. There are many department managers, consultants, and analysts who perform day-to-day operations, accounting services, cost savings adjustments, and staff supervision. Administrators also make changes to hospital or clinic policies and manage the wide range of services provided to the community.

Avi realizes that his area of study is not widely known, but the degree itself is broad and will allow him to do many different things. He hopes to learn as much as possible in order to grow and become an effective manager and policymaker, making a difference in his community.

To learn more about jobs in hospital administration and healthcare management, please visit:

http://explorehealthcareers.org/en/Field/13/Health_AdministrationManagement and

<http://www.healthmanagementcareers.org/started.cfm>

For more information on health care reform efforts in California, visit OSHPD's resource page at:

www.oshpd.ca.gov/Reform/index.html

Combating Health Disparities Begins with You

Students and youth organizations are making a difference, actively working toward improving health conditions in underserved communities. Join in the efforts to increase awareness of specific health issues and promote education on topics such as nutrition, preventative care, and available low-cost services in neighborhoods where health disparities continue to grow.

What are Health Disparities?

Health disparities or health inequities are persistent gaps in the quality of health and healthcare across racial, ethnic, gender, sexual orientation, and socioeconomic groups. This is measured by the presence of disease, health outcomes, and access to healthcare. The Office of Statewide Health Planning and Development (OSHPD) has provided some insight into California's health disparities trends from 1999 to 2007 using healthcare quality measures for the state's five predominant racial and ethnic populations (Whites, Blacks, Hispanics, Asian/Pacific Islanders, and Native Americans). Many diseases and health conditions are more common in minority populations including pancreatic and liver cancer, diabetes, heart disease, HIV/AIDS, asthma, and obesity.

Statistics and collected data tell us that there are many reasons for disparities in the health and well-being of Americans. The primary causes are lack of insurance coverage, lack of routine/preventative health services, access to quality care, and other barriers including financial resources, language differences, health literacy, geographic area, gender, and age.

Some of California's most serious health disparities include:

- Asthma** Disparities in asthma are multiple and complex. It is known that asthma is more common and more deadly among low-income and Hispanic populations. These groups also have higher rates of hospitalization and emergency room visits according to OSHPD's patient discharge data.
- Cancer** According to the Centers for Disease Control and Prevention, incidence rates and death rates are highest among African-Americans and Hispanics. Cancer is found among African-Americans at a 10% higher rate than among Whites.
- Depression** According to the National Institute of Mental Health, nearly twice as many women as men are affected by a depressive disorder each year.
- Diabetes** According to the Centers for Disease Control and Prevention, rates of type 2 diabetes (most often caused by obesity) are significantly higher among minorities. African-Americans have the highest hypertension rates in the world with a 29% higher death rate from heart disease than White adults.
- Obesity** According to the Centers for Disease Control and Prevention, one-third of America's children are overweight and 17% are clinically obese. More than one-third of American adults are obese with 6% in a life-threatening condition. African-Americans are 50% more likely to be obese than Whites, and Hispanics 20% more likely.

How Do Disparities Affect Californians?

Californians are affected in many ways. Medical and technological advances have not benefitted all Californians equally. In addition to health disparities associated with urban, ethnic and racial populations, rural populations are also at risk. Rural residents are statistically lower income, older, and have fewer physicians and health facilities to care for them. Rural populations suffer from unequal treatment for minorities, lack of diversity among healthcare providers, lack of insurance, poverty, poor access to healthy foods, and exposure to environmental risks.

A 2011 report from OSHPD, *Racial and Ethnic Disparities in Healthcare in California: California Fact Book 2010*, identifies trends and gaps in access to healthcare and the quality of services received using more than thirty healthcare quality measures for the state's racial and ethnic populations. The data shows that the most dramatic disparities were seen in outpatient settings. This may be due to poor access to care, the quality of outpatient care, or a high prevalence rate of disease among a specific population. The findings of the report provide strong evidence for policy makers and healthcare providers to focus efforts on addressing access to and quality of care provided in non-hospital (outpatient) settings.



Health disparities are not new, they are persistent and multi-dimensional, all with devastating results. Social policies and programs continually target many of the root causes of social inequities, but it is the individual that can make the largest impact on community health.

How Can I Help?

There are many opportunities to volunteer or work in your local area. Students and parents are redesigning school lunch programs and snack offerings to promote healthy lifestyle choices. Community groups and city programs are offering free checkups and health testing at farmer's markets, flea markets and other public events. Health information and resources are distributed in multiple languages to effectively target at-risk populations.

There are job opportunities which directly combat health disparities and can immediately make a difference in the lives of patients. Primary care professionals are needed to improve both the cultural competence of care and the quality and access to care in community centers, clinics, hospitals and extended care facilities. Change in the community begins with you!

Health Occupations Combating Health Disparities

Related Jobs in Healthcare	Role in Combating Disparities	Minimum Education	Average Salary*
Phlebotomist / Clinical Laboratory Technician	Interviews patients and collects blood, fluids and cells for testing and other laboratory procedures.	Bachelor's Degree	\$35,380
Health Educator	Promotes, encourages and maintains healthy behaviors and lifestyles for better health and effective treatment.	Bachelor's Degree	\$44,000
Cardiovascular Technician	Conducts diagnostic tests such as electrocardiograms, catheterizations and other pulmonary-function tests.	Associate Degree	\$47,010
Dietitian / Nutritionist	Provides guidance, education and planning for meal programs and proper dietary treatment plans.	Bachelor's Degree	\$50,590
Respiratory Therapist	Assists and operates ventilators, bronchoscopy systems, oxygen delivery devices and monitoring systems.	Associate Degree - Master's Degree	\$52,200
Physician Assistant	Assists in direct patient care performing physicals, providing treatment and counseling patients.	Associate Degree - Master's Degree	\$81,230

* National estimates from U.S. Department of Labor, Bureau of Labor Statistics, 2008

For more information on health disparities, please visit:

OSHPD's 2011 report, *Racial and Ethnic Disparities in Healthcare in California: California Fact Book 2010*: www.oshpd.ca.gov/HID/Products/PatDischargeData/ResearchReports/EthnicRacialDisp/RacialEthnicFactBook_2010.pdf

Centers for Disease Control and Prevention, California State Profile: <http://www.cdc.gov/chronicdisease/states/california.htm>

Rural Assistance Center: www.raonline.org/info_guides/disparities/

Information on healthcare jobs and employers in your area: www.hcrc.net/index.action or www.edd.ca.gov/Jobs_and_Training/Find_a_Job.htm

Information on volunteer and internship opportunities: www.groovejob.com/browse/internships/in/CA/California



Is Your GPA High Enough for Medical School?

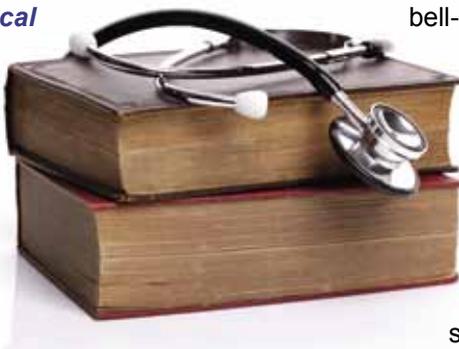
By Bob Montoya, M.D., M.P.H.

Many pre-med students are told that they need a 3.5 grade point average (GPA) or that they should not even apply for medical school admission. This is bad advice for all pre-meds and especially for those from disadvantaged and federally designated health professional shortage area backgrounds. It often leads to many pre-meds from disadvantaged and shortage area backgrounds dropping out of the pre-med pathway early in their college careers, or not applying for medical school, even though they could achieve or have adequate GPAs for medical school admission.

“If you start college with the goal of becoming a physician and start off with mediocre grades, hang in and work hard. Your grades are likely to improve as you become a more skilled and experienced college student. You very well could end up with quite viable grades for acceptance to medical school,” states Dr. Bob Montoya.

In 2010, a total of 788 underrepresented minorities (URMs) in California applied for admission to U.S. medical schools and 397 (50.4%) were accepted. The mean Science GPA (Biology, Chemistry, Physics, Math) of these 397 accepted students was 3.35 with a standard deviation of .36.

This means that about half or 199 of these accepted URMs had Science GPAs of 3.35 or less. Further, about 16% or about 64 of these accepted students had Science GPAs of 2.99 or less (3.35 - .36). In terms of total GPA, the mean for the 397 accepted students was 3.43 with a standard deviation of .30. As with the Science GPA, about half of these accepted students had a total GPA of 3.43 or less and 16% or about 64 had total GPAs of 3.13 or lower.



Many freshmen and sophomore students take this bad “3.5 advice” to mean that they need a 3.5 or better GPA right from the start of their college studies. They soon drop out of pre-med when they don’t achieve such high GPAs early in their pre-med studies. Given the inconsistency of high school programs that many Californians attend, it is not surprising that many current med students and doctors with disadvantaged and shortage area backgrounds had fairly low GPAs in their freshman and sophomore years.

For most college students, GPAs generally rise substantially as students become more experienced and skilled at college studies. A student who achieves a non-competitive first year GPA of 2.5 could rise to the 2.8-3.1 range in the second year and then 3.1 to 3.5 or so in subsequent years. A student with a 2.5 in their first college year could end up with a 3.2-3.3 GPA that puts her/him in the fat part of the bell-shaped GPA curve of those economically disadvantaged Californians accepted to a U.S. medical school.

The bottom line is, if you start college with the goal of becoming a physician and start off with mediocre grades, hang in and work hard. Your grades are likely to improve as you become a more skilled and experienced college student. You very well could end up with quite viable grades for acceptance to medical school.

At medical school application time (at the end of your junior year), the higher your GPA, the higher the probability that you will be accepted to a California medical school. But, if you are an economically disadvantaged student from a shortage area who is completing your pre-med studies with a GPA in the high 2s or low 3s, you should apply to med school.

A Summary of the GPA and Medical College Admission Test (MCAT) Data

# Applications	# Accepted	Accepted %	Accepted GPAs and MCATs				
			Science GPA	Total GPA	Verbal MCAT	Phys-Science MCAT	Bio-Science MCAT
788	397	50.4%	3.35	3.43	9.2	9.6	10.2
Standard Deviations			~.36	~.30	~1.8	~1.7	~1.6

Note: The standard deviation refers to the variation from the average or mean. A lower figure indicates that the data tends to be very close to the mean. A higher figure indicates that the data are spread out over a larger range of values.

Students should apply to all of the California medical schools (University of California, San Diego, University of California, Irvine, Loma Linda University, University of Southern California, Drew University, University of California, Los Angeles, Stanford University, University of California, San Francisco, and University of California, Davis). Californians with economically disadvantaged and federally designated health professional shortage area backgrounds should also apply to receptive out-of-state medical schools that have a good track record of accepting and training disadvantaged Californians, including:



- | | | |
|---------------------------------|------------------------------|--------------------------|
| University of Oregon | Michigan State University | Drexel University (PA) |
| University of Washington | Medical College of Wisconsin | Temple University (PA) |
| University of Utah | Meharry Medical College (TN) | Howard University (D.C.) |
| University of Illinois, Chicago | Ohio State University | |

You may get accepted to a very receptive out-of-state medical school, and possibly a California medical school. If you are not accepted with those GPAs, you could apply to and enter one of California's post-baccalaureate programs (<https://meded-postbac.ucsd.edu>) which are designed to build academic skills and provide guidance throughout the medical school application process.

As you start your college pre-med studies, you should establish contact with Outreach or Diversity offices at some of the California medical schools listed below for advice, counseling, information on programs and opportunities available, meetings with medical students, etc. These offices are paid to outreach to you and help you prepare for and get into medical school.

University Outreach or Diversity Offices

University of California, Los Angeles	Elizabeth Guerrero-Yzquierdo	eyzquierdo@mednet.ucla.edu	(310) 825-3575
University of Southern California	Althea Alexander	aalexand@usc.edu	(323) 442-1050
University of California, Irvine	Jose Rea	jjrea@uci.edu	(949) 824-1141
Loma Linda University	Daisy Deleon	ddeleon@llu.edu	(909) 558-4300 ex. 42757
University of California, San Diego	Sandra Daley, M.D.	sdaley@ucsd.edu	(619) 681-0675
Stanford University	Ron Garcia, Ph.D.	ron.garcia@stanford.edu	(650) 725-0354
University of California, San Francisco	Rene Navarro, M.D.	navarror@anesthesia.ucsf.edu	(415) 206-3249
University of California, Davis	Michelle Villegas-Frazier	michellevillegas-frazier@ucdmc.ucdavis.edu	(916) 734-1829



CALIFORNIA PRISON HEALTH CARE SERVICES

- **Certified Nursing Assistant**
\$29,304 - \$35,628
Annual Salary
- **Pharmacy Technician**
\$35,904 - \$43,668
Annual Salary
- **Psychiatric Technician**
\$56,400 - \$61,932
Annual Salary
- **Dental Hygienist**
\$67,464 - \$82,008
Annual Salary
- **Radiologic Technician**
\$57,096 - \$64,560
Annual Salary

Medical Support Careers in Corrections – A Great Place to Start

You're closing in on graduation from high school, or maybe that's already happened. What's next? A career in medicine seems like the farthest thing from your mind. Being a doctor or registered nurse is a long haul, but there are lots of other choices that lead to a good paying job with many opportunities to advance.

California Prison Health Care Services oversees medical care to the state's 33 adult correctional facilities and employs more than 7,000 personnel. Some of the career choices that require less than two years of training include vocational nursing, psychiatric technician, laboratory assistant, pharmacy technician, dental assistant or hygienist, radiologic technician, and certified nursing assistant. Local community colleges and private vocational schools can give you the program requirements, costs, and any prerequisites you might need in order to enter the program.

To learn more about opportunities in the state prison medical system, please visit: www.changingprisonhealthcare.org.

Healthcare Pathways

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(916) 326-3700
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Please submit your comments, suggestions and ideas by phone at (916) 326-3700.



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