



Closing the Health Workforce Gap in California: The Education Imperative *Executive Summary*

The Campaign for College Opportunity, with support from Kaiser Permanente and the California Wellness Foundation, commissioned Health Workforce Solutions LLC (HWS) to examine the issues and challenges associated with ensuring a qualified health workforce in California.

The Campaign for College Opportunity is a coalition of business, labor and community organizations working to ensure that the next generation of California students has the opportunity to go to college as promised by the 1960 Master Plan for Higher Education.

For the full study as well as methodology and source material, please visit www.collegecampaign.org

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California's population is growing, aging and becoming increasingly diverse. These compounding factors will increase demand for all types of health care services, placing a corresponding demand on allied health professionals and leading to the need for more trained professionals. In California, employment demand for allied health workers is expected to grow by 26% in less than a decade, while overall employment is expected to grow by 16%.

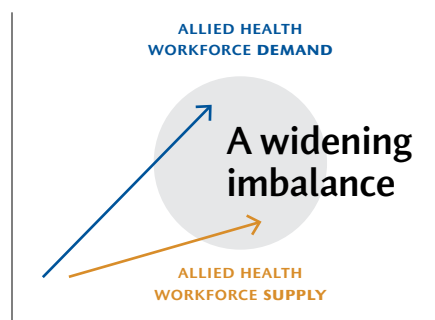
Without significant expansion of the state's educational capacity and an unprecedented focus on student success, there will not be enough allied health workers to meet the growing health care needs of California.

Major recent studies have shown that California is projected to have a significant shortage of college-educated workers in comparison to the needs of the economy. Studies also show that it is unlikely for California to import these workers from other states and countries.

The allied health workforce comprises 60% of healthcare occupations. Representing more than 200 occupations, allied health professionals utilize a wide range of highly specialized technical skills to provide diagnostic, therapeutic, and informational and support services directly and indirectly to patients in health care delivery settings. Examples of allied health occupations include Dental Hygienists, Respiratory Therapists, and Pharmacy Technicians. This study focuses on this major section of the healthcare workforce, which has received little attention to date. The

study also includes an analysis of nursing. Although nursing is typically not considered part of the allied health workforce, we include nursing because of the recent focus on nursing shortages in California and the important role nurses occupy in the healthcare workforce.

California is currently undersupplied in its levels of allied health professionals. All but one of the 15 health professions profiled in this study lagged the nation in the rate of health professionals to the general population. Projected workforce shortages were also found in nine of the twelve professions where data was available. Combining projected employment demand data with supply estimates based on recent graduation data, we were able to estimate annual shortfalls in workforce supply. With a median of 79%, the estimated shortages ranged from 11% to 559%. That means that the supply of those professions must be increased by 11% to 559% to meet projected health care needs. Additionally, interviews with educators, health care providers, and other stakeholders yielded strong testimonies of current and projected health workforce shortages in California.



Many factors affect the supply of allied health workers. Inadequate data collection impedes effective policy making and workforce planning. Limited awareness of allied health careers and workforce retention problems greatly impact the level of allied health workers. However,



the greatest limiting factors are centered in the educational systems that train health professionals.

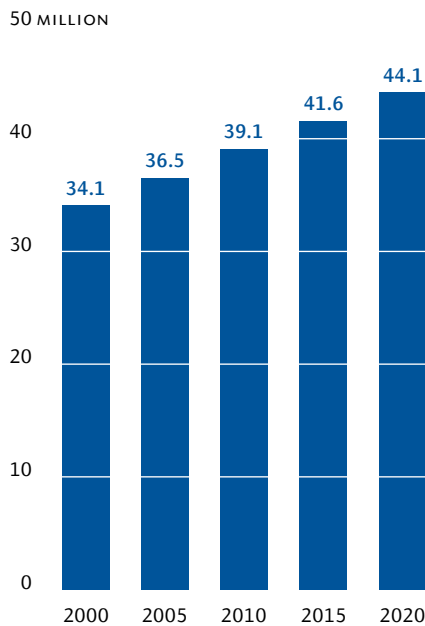
Stakeholders across the state overwhelmingly cited limited educational capacity in allied health educational programs as the greatest factor restricting workforce supply. Inefficiencies in the educational system, high attrition rates in training and education programs, and limited student supports were also cited as major forces restricting supply growth.

A previous study analyzing overall workforce needs found that among all industries health care is the number one sector requiring Associate degrees and certificates. Although many allied health occupations require a Bachelor's degree or higher, the prevalence of certificate and AA requirements means the community colleges are central to meeting these health care workforce demands.

Allied health workforce shortages will place the health care of all Californians in jeopardy. Without significant expansion of the state's educational capacity and an unprecedented focus on student success, there will not be enough allied health workers to meet the growing health care needs of California.

Factors Driving Demand of the Allied Health Workforce in California

Population Growth: The population of California is the largest in the nation and is expected to grow at a rate of almost 30% by 2020, outpacing population growth of 20% in the United States as a whole.



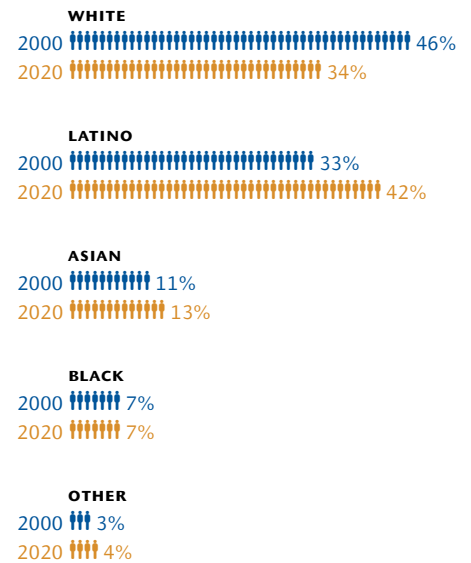
Source: California Department of Finance, July 2007, and calculations by Health Workforce Solutions LLC

Aging Population: Californians over the age of 65 are the fastest growing population group. The state's elderly population is expected to increase by 75% between 2000 and 2020. Increasing average ages means greater demand for health professionals as the elderly population utilizes health care at a much higher rate than the general population. In fact, average health care expenditures increase fourfold between age 65 and 97.



Aging Workforce: The allied health workforce reflects the aging trends seen more broadly across California, with some professions facing a significant challenge to replace their aging workforce. According to interviewed health care providers, some health systems have a Clinical Laboratory Scientist workforce with an average age well over 50. And the California Board of Registered Nurses reports that the average age of Registered Nurses in California is 47.7.

Need for Diversity in the Allied Health Workforce: California's increasingly diverse population intensifies the need for a culturally and linguistically competent allied health workforce.



Source: Planning for California's Future: The State's Population is Growing, Aging, And Becoming More Diverse. California Budget Project (Budget Backgrounder, November 2005).

Geographical Distribution: Certain regions are growing faster than the state or are more remote, contributing to a greater demand for allied health workers in those regions.

Changing Regulations: Government regulations, such as staffing ratios, can increase demand.

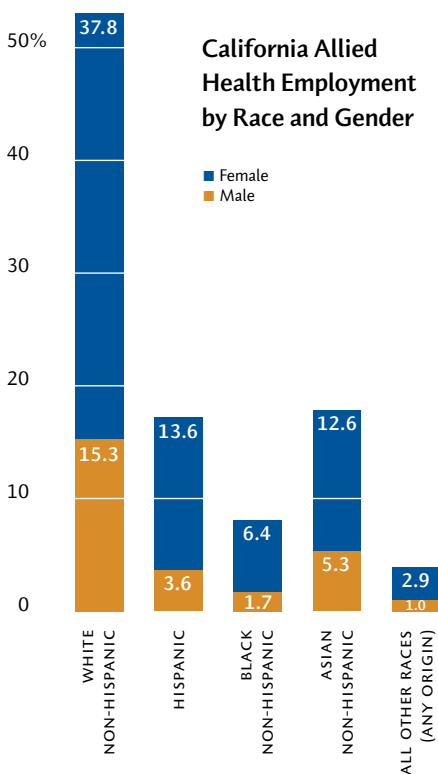
Migration: Migration flows in and out of the state can affect the demand for health workers through both general population and health workforce fluctuations.

Technology: Technological innovations can stimulate or weaken the demand for health workers.

Factors Limiting the Supply of the Allied Health Workforce in California

Educational Capacity Constraints:

Limited educational capacity in allied health educational programs is restricting health workforce supply. Several factors contribute to capacity constraints, including the high relative costs of health education programs, a lack of clinical placements, and faculty shortages. Moreover, the community college system is struggling to provide services across all programs in the face of limited funding, rapid student growth and increasing student needs. These capacity constraints are not limited to the allied health programs themselves, but also to the range of math, science, and English classes, including basic skills education, necessary for entry into and success in health care programs.



Source: Census 2000 Redistricting Data Summary File and EEO Special Tabulation. "The Allied Health Workforce in California" (Center for the Health Professions, UCSF 2005).

Educational System Inefficiencies:

A lack of bridges between academic health programs means waitlisted and other qualified students are not being given the opportunity to move into empty seats in other health programs. Furthermore, difficulties navigating the California educational system are potentially limiting the supply of allied health professionals. Confusion over transfer requirements and a lack of system-wide agreement on program pre-requisites and curriculum pose significant barriers to students, who by necessity must turn to multiple colleges to complete their educational programs.

High Attrition Rates in Allied Health Educational Programs:

The supply of allied health professionals is greatly limited by poor student outcomes. Students are not succeeding because they are ill prepared to navigate the educational system, balance school and life demands, and achieve academically, especially in math and science courses. Data on a recent cohort of California Community College nursing graduates showed that 25% graduated behind schedule and 25% did not graduate at all. Additionally, a lottery or a "first come first serve" system is typically used to allocate seats in impacted programs, without adequate attention on improving the preparation of incoming students.

Lack of Student Supports: Lack of student supports, from financial aid to counseling, is a huge factor in poor student outcomes. Access to financial aid is even more critical as many students in community colleges have families to support and must continue to work while pursuing education. Interviewed stakeholders stressed that students need "wrap around" support services, such as tutoring, counseling, health insurance and childcare, to be successful.

Limited educational capacity in allied health educational programs is restricting health workforce supply.

Limited Awareness of Certain Allied Health Professions:

Lack of knowledge about certain health careers is a significant factor limiting supply. Limited exposure to health careers through outreach programs and a lack of counselors and mentors in the middle schools and high schools were commonly cited as reasons for this lack of awareness.

Retention Challenges in the Workplace:

Health care is a demanding sector and many new graduates are entering the workforce ill equipped to handle the corresponding pressures and expectations, resulting in high turnover rates.

Lack of Robust Allied Health Workforce Data:

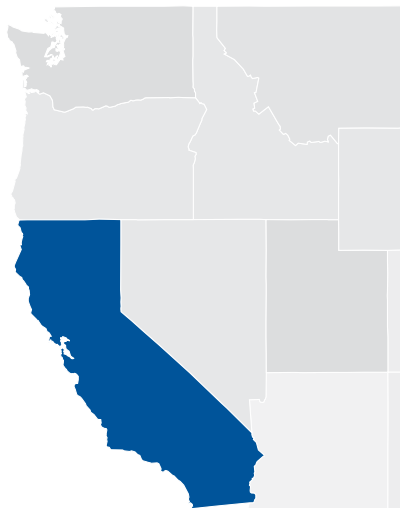
Effective workforce planning and policymaking relies on robust data and analysis. In California, there is a dearth of allied health workforce data. Without improved data collection, it will be very challenging for policy makers and educators to effectively design strategies to increase the supply of allied health workers.

Education and Licensing Requirements:

Supply of allied health workers can be limited by higher minimum education requirements and tighter regulations.

Current Health Workforce Policies in California

In response to growing concerns about health workforce shortages, California has begun examining workforce issues from a more strategic and comprehensive level. While much remains to be done to ensure an adequate health care workforce in California, policymakers and other stakeholders can utilize lessons learned from these implemented strategies.



Nurse Education Initiative

(2005 – Present): Governor Arnold Schwarzenegger’s \$90 million public-private partnership to provide funding for nurse education has already resulted in a 25% decrease in the projected state shortage. Examples of strategies include:

- ▶ Increasing educational capacity in California Community Colleges, California State Universities and the University of California through dedicated funding
- ▶ Encouraging nursing students to become nursing instructors through a loan assumption program
- ▶ Providing grants to community colleges to reduce attrition rates, provide more clinical opportunities, and recruit nursing faculty
- ▶ Developing nursing and health career pathways for high school students
- ▶ Supporting nursing career ladders

Nursing Workforce Initiative

(2002 – 2005): Former Governor Gray Davis’ three-year comprehensive plan addressed RN workforce shortages in California through scholarships for nursing students, career ladder projects, and regional workforce collaboratives.

California Caregiver Training Initiative

(2001 – 2002): A two-year, \$25 million plan designed to increase the number of health caregivers in California, this initiative was successful in increasing the supply of Certified Nursing Aids (CNAs) by funding innovative approaches to recruitment, training, and retention of caregivers in the healthcare industry.

Policies and Practices from Other States

Concerns about allied health workforce shortages are not unique to California and examining actions in other states highlights common themes that begin to outline best practices.

Multiple Stakeholders: A common theme across the reviewed states is the involvement of multiple stakeholders in the design of strategies and solutions. Stakeholders typically included state and local government, health care providers, educators, and labor and professional associations.

Statewide Workforce Strategy:

Developing a comprehensive workforce plan that encompasses multiple approaches for addressing health workforce shortages is another recurring theme.

Dedicated Resources: Through legislation, many states established dedicated resources in terms of both funding and the formation of standing councils or task forces.

High Level Support and Visibility: The base of many states’ strategies is a Governor sponsored initiative or campaign.

Comprehensive Data Collection:

Establishing a comprehensive health workforce data collection system is a key component of many policy solutions in other states.

Policy Recommendations

California has the opportunity to improve the quality and affordability of health care in the state by developing major new initiatives focused on the allied health workforce and sustaining efforts to prepare future nurses. Because of the vast number of these professions and the range of academic skills necessary to succeed in them, considerable attention should be given to overall improvements in college preparation, access and success.



Increase the supply of allied health professionals by focusing on improved student outcomes:

- ▶ Develop solutions responsive to the needs of diverse student populations, who have historically been underrepresented both in higher education and in the healthcare workforce.
- ▶ Postsecondary student supports should focus on improving graduation rates, the length of time to complete, and the quality of graduates in the workforce.
- ▶ Improving student readiness in grades K through 12 should focus on better academic preparation, particularly in science and math, and skills to navigate the education system.
- ▶ Instruction methods and curriculum design should also be continually evaluated and redesigned, particularly for training programs targeting non-traditional students.



Expand educational capacity through dedicated funding, support for faculty development, and enhanced clinical placement opportunities.

- ▶ Investment and attention must be sustained given ongoing demand drivers such as an aging population and aging workforce.
- ▶ Slots for allied health education and capacity and coordination of science, math, English and basic skills programs necessary for success in the healthcare workforce must be increased.
- ▶ The focus on nursing must be sustained while developing and integrating new initiatives in allied health.



Establish comprehensive data collection and analysis to allow for effective workforce planning and policymaking.



Develop a comprehensive, strategic plan involving all stakeholders that addresses the multiple factors limiting the supply of allied health professionals.

Focus on improving communication and requirements between campuses and education systems to streamline the educational process for students.



Encourage deep partnerships between schools and employers to increase the supply of clinical faculty and placements and create pipelines for local employers.

Invest in outreach and educational programs to improve public awareness of preparation for allied health professions. Programs should target youth and underrepresented minorities. Programs should prepare students to be successful in those careers by emphasizing math and science readiness and building support networks through parent outreach and education.

Promote career ladder projects for existing health workers who are already committed to health careers and can benefit from advancement opportunities.

Recommendations for educational providers:

- ▶ Reevaluate distribution of full-time and part-time faculty across disciplines. Utilize part-time faculty for specialized health programs where recruitment of full-time permanent faculty may be difficult.
- ▶ Examine existing health program curriculum and remove any unnecessary barriers.

Recommendations for health care employers:

- ▶ Develop career ladders for clinical and non-clinical employees.
- ▶ Partner with local educational providers to expand access to education for employees and provide clinical placements.

A Snapshot of Occupations

Minimum Education Requirement	Health Profession	Median Hourly Wage 2005–06	California Projected Employment Growth 2004–2014	Estimated Growth in Graduates Needed to Meet Current Demand
No Requirement	Medical Transcriptionists	\$18.70	19%	NA
	Surgical Technologists	\$20.96	24%	No current shortage
Certificate	Emergency Medical Technicians and Paramedics	\$12.19	26%	NA
	Pharmacy Technicians	\$16.34	26%	119%
Associate Degree	Cardiovascular Technologists and Technicians	\$24.76	21%	72%
	Dental Hygienists	\$36.83	42%	122%
	Diagnostic Medical Sonographers	\$31.99	28%	60%
	Physical Therapist Assistants	\$25.22	38%	178%
	Medical Radiographers	\$28.03	20%	No current shortage
	Registered Nurses	\$35.23	26%	51%
	Respiratory Therapists	\$28.03	22%	No current shortage
Bachelor Degree	Clinical Laboratory Scientists	\$32.36	20%	559%
Advanced Degree	Pharmacists	\$53.03	24%	79%
	Licensed Clinical Social Workers	\$31.00	NA	NA
	Physical Therapists	\$35.55	29%	11%

NA = Data not available