



GRADUATE MEDICAL EDUCATION FUNDING IN CALIFORNIA

Primary Care Physician Crisis

California is currently experiencing a shortage of primary care physicians. According to the Healthforce Center at UCSF, every region in California except the greater Bay Area lacks the recommended number of primary care physicians per population.¹

Future projections indicate a need to increase by 32% the number of primary care physicians by the year 2030.² Medical specialties that are often considered “primary care” include family medicine, pediatrics, internal medicine, geriatrics, hospice/palliative care, and sometimes obstetrics/gynecology.

services have 19% lower odds of premature death than those who see only other specialists.³ Through prevention and early diagnosis of diseases, primary care also helps save money and reduce overall costs. An Oregon study of the Patient Centered Primary Care Home Program showed that for every dollar spent on primary care, there was \$13 of savings in overall spending.⁴ Furthermore, increased primary care has been associated with a more equitable distribution of health in populations.⁵

Why Is Primary Care Important?

Primary care provides the first point of contact with the health care system and, when used properly, provides the majority of health care services for the majority of the population. Not only does primary care offer preventive services, such as vaccinations, but providers can often detect potentially serious health problems before they become more severe. Studies have shown that those who use primary care

ABOUT THIS SERIES

Graduate medical education (GME) — also known as residency and/or fellowship — is the final training that physicians undergo after graduation from allopathic or osteopathic medical school, domestically or internationally. GME, and how it is funded, determines the number and specialty types of practicing physicians in the workforce.

See the entire *Graduate Medical Education Funding in California* series at www.chcf.org.

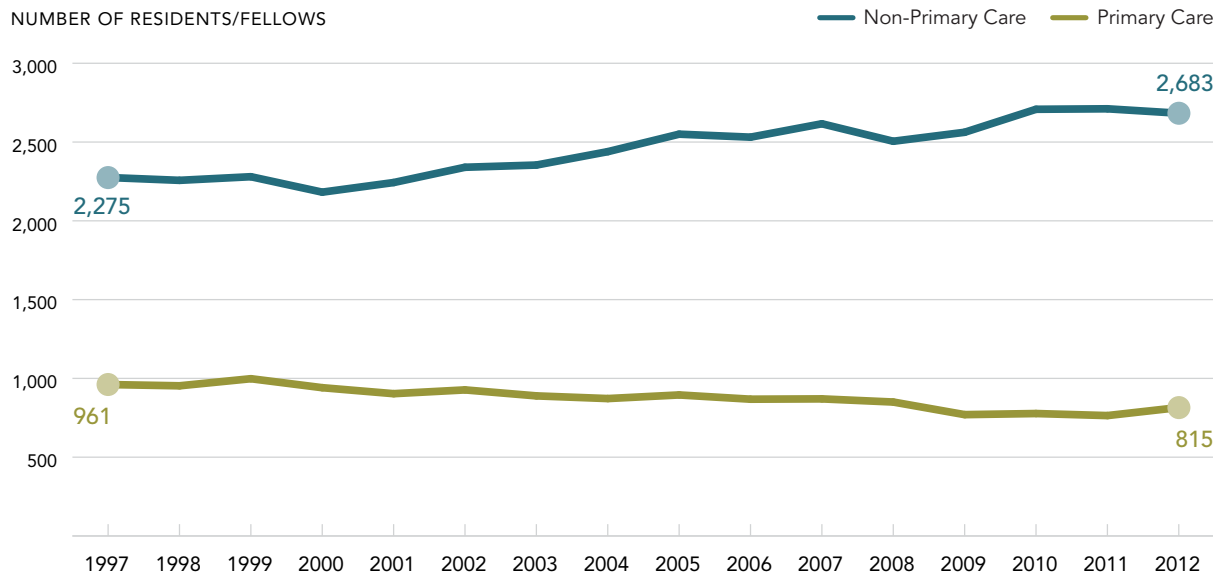
Training California's Primary Care Physicians

There are many reasons for California's primary care physician crisis.⁶ One important factor relates to graduate medical education (GME). Between 1997 and 2012, the total number of GME graduates in California increased by 8.1%, while California's population increased by 17%.⁷ Furthermore, while

the number of non-primary care residents and fellows graduating from California GME programs increased, the number of primary care graduates declined over this same period (see Figure 1).

The percentage of graduates in primary care (out of total GME graduates in California) declined from 29.7% to 23.3% over this same period (Figure 2).⁸

Figure 1. Non-Primary and Primary Care Residents/Fellows Graduating from Sponsoring California Institutions, 1997–2012

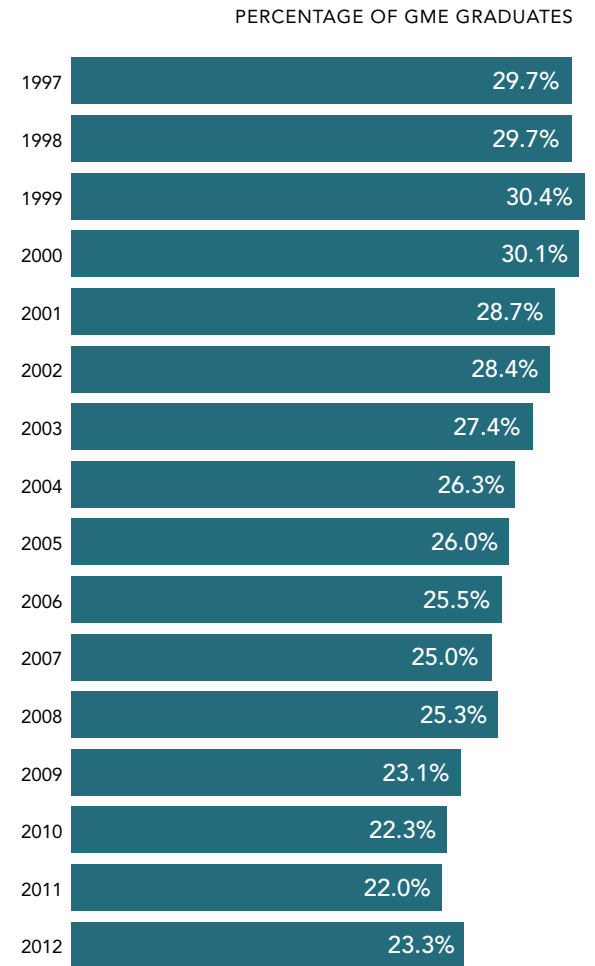


FIGURES 1 AND 2:

Notes: *Primary care* residencies include pediatrics, family medicine, and internal medicine. Corrected for further *non-primary care* specialized residents.

Source: American Medical Association (AMA) Masterfile Historical Residency File, 2017.

Figure 2. GME Graduates Pursuing Primary Care, California, 1997–2012



Who trains primary care physicians? In 2015, 36.9% of all primary care GME graduates in California graduated from a University of California (UC) residency or fellowship program. Different UC campuses focus on primary care to differing degrees. For example, 21.8% of UCSF graduates specialize in primary care

fields, compared with 15.9% of UCLA and UC San Diego graduates. Table 1 lists the California sponsoring institutions that produce the most primary care graduates, and the percentage of their total graduates that specialize in primary care.

Table 1. Primary Care Graduates as a Percentage of GME Graduates in the California Sponsoring Institutions That Produce the Most Primary Care Graduates, 2015

SPONSORING INSTITUTION	NUMBER OF GME GRADUATES	PRIMARY CARE GRADUATES	
		NUMBER	% OF GME
UCSF	513	112	21.8%
UCLA	504	80	15.9%
University of Southern California	348	69	19.8%
Kaiser Permanente – Southern California	115	56	48.7%
Loma Linda University Medical Center	184	53	28.8%
UC Davis	220	44	20.0%
UC San Diego	251	40	15.9%
Kaiser Permanente Medical Group	84	38	45.2%
UC Irvine	223	37	16.6%
Contra Costa Regional Medical Center	34	34	100.0%
Cedars-Sinai Medical Center	146	25	17.1%
Ventura County Medical Center	16	16	100.0%
Santa Clara Valley Medical Center	51	16	31.4%
Alameda County Medical Center	41	14	34.2%
San Joaquin General Hospital	18	13	72.2%
Kern Medical	37	13	35.1%

Increasing the Number of Primary Care Graduates

California does not have a central governing body that is responsible for physician workforce planning. Instead, GME is subsidized by a number of federal and state agencies, with little to no coordination, transparency, or accountability. Because individual GME sponsoring institutions in California make decisions about how many physicians get trained in each specialty, incentives need to be created to encourage growth of primary care. Because primary care GME programs do not generate revenues for sponsoring institutions comparable to other procedure-based specialties, supplemental funding through federal and state subsidies may be necessary.

Funding the expansion of primary care GME capacity. There are two main avenues for expanding GME capacity in primary care. The first avenue is through the expansion of GME programs at existing sponsoring institutions to train more residents and fellows. Unfortunately, Medicare (the largest funder of GME training) does not allow expansion of existing GME programs, so subsidies would need to come from other sources such as the Veterans Health Administration, the Health Resources and Services Administration, Medi-Cal, California’s Song-Brown program, California’s Proposition 56 funding, or the University of California or some other health care institution’s budget.

The second avenue is through the creation of new primary care GME programs in hospitals, health systems, and community clinics with sufficient interest and expertise in medical education. New teaching

hospitals are eligible for and could receive Medicare GME funding once program accreditation is received and training begins. Although new hospital-based programs could potentially pay for training using Medicare GME funds, there are significant start-up costs in the first few years of any program that would not be covered by Medicare.

If We Build It, Will They Come?

Currently, there are more residency positions in California than doctors graduating from California medical schools, with 1,133 California medical school graduates and 2,617 first-year residency positions available in 2017.⁹ Of those graduates, 68.2% remained in California for their GME programs, the highest retention rate of any state. The remaining residency positions tend not to have problems filling (96.75% of all positions filled in 2018), and primary care is no exception, with 97.8% of primary care positions filling. Positions are usually unfilled for temporary, situational reasons and not because of lack of interest. Family medicine residencies within the state are overwhelmed with applications each year — in some cases receiving several hundred applications for a single residency position. Of all GME graduates, 70.4% remained in California to practice medicine, also the highest retention rate of any state.

Some of the applicants are graduates of medical schools outside the US who need to complete a residency in the US to obtain a California medical license. Nationally, 30% of family medicine residency positions each year are filled with international medical graduates (IMGs), partially because of declining US medical student interest in primary care specialties.¹⁰ However, in California in 2018 only 22.6% of family medicine residencies were filled by IMGs, the majority of whom were US citizens who had attended international medical schools (17.9% US-born IMGs compared with 4.7% foreign IMGs).¹¹ With the huge competition for each residency position, there is little indication that an increase in the number of primary care GME positions would go unfilled.

The Authors

This paper was authored by Diane Rittenhouse, MD, MPH, Alexandra Ament, and Kevin Grumbach, MD, of the University of California, San Francisco, and Stephen Petterson, PhD, Zachary Levin, and Andrew Bazemore, MD, MPH, of the Robert Graham Center.

About the Foundation

The California Health Care Foundation is dedicated to advancing meaningful, measurable improvements in the way the health care delivery system provides care to the people of California, particularly those with low incomes and those whose needs are not well served by the status quo. We work to ensure that people have access to the care they need, when they need it, at a price they can afford.

CHCF informs policymakers and industry leaders, invests in ideas and innovations, and connects with changemakers to create a more responsive, patient-centered health care system.

For more information, visit www.chcf.org.

Endnotes

1. Janet Coffman, Igor Geyn, and Kristine Himmerick, *California's Primary Care Workforce: Current Supply, Characteristics, and Pipeline of Trainees*, Healthforce Center at UCSF, February 16, 2017, healthforce.ucsf.edu (PDF).
2. *California: Projecting Primary Care Physician Workforce*, Robert Graham Center, accessed December 7, 2018, www.graham-center.org (PDF).
3. Jack Ende, *Strengthening the Primary Care Workforce*, National Coalition on Health Care, September 20, 2017, nchc.org (PDF).
4. Sherril Gelmon et al., *Implementation of Oregon's PCPCH Program: Exemplary Practice and Program Findings*, Oregon Health Authority, September 2016, www.oregon.gov (PDF).
5. Barbara Starfield, Leiyu Shi, and James Macinko, "Contribution of Primary Care to Health Systems and Health," *The Milbank Quarterly* 83, no. 3 (September 2005): 457–502, www.ncbi.nlm.nih.gov.
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7. US Census Bureau and 2017 AMA Masterfile Historical Residency File.
8. 2017 AMA Masterfile Historical Residency File.
9. Association of American Medical Colleges (AAMC) data tables: www.aamc.org (PDF); and National Resident Matching Program (NRMP) data tables: kinstacdn.com (PDF).
10. "2018 Match® Results for Family Medicine," American Academy of Family Physicians, accessed December 7, 2018, www.aafp.org.
11. AAMC data tables and NRMP data tables.