



California Health Care Foundation



**Training Tomorrow's Physicians:**  
Recommendations for Expanding  
Graduate Medical Education Funding  
in California

FEBRUARY 2019

# Contents

## The Authors

Diane Rittenhouse, MD, MPH, Alexandra Ament, and Kevin Grumbach, MD of the Department of Family and Community Medicine, University of California, San Francisco.

These recommendations are intended as a companion to the series *Guide to Graduate Medical Education Funding in California*. See the entire series of briefs at [www.chcf.org](http://www.chcf.org).

## Acknowledgments

Special thanks to the Robert Graham Center, Washington, DC. Please see the appendix for a list of key informants who helped make this report possible.

This document informed the development of the California Future Health Workforce Commission's recommendation on expanding the number of primary care physician and psychiatry residency positions. The Commission's final report and recommendations are available at [futurehealthworkforce.org](http://futurehealthworkforce.org) (PDF).

## 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](http://www.chcf.org).

## 3 Introduction

## 4 Recommendations for California

## 15 Summary

## 16 Appendix. Key Informants

## 17 Endnotes

# Introduction

California is experiencing a crisis: There are not enough physicians to meet the needs of the population, and the situation is worsening over time. The total number of active patient care physicians in California declined from 2013 to 2015.<sup>1</sup> Shortages exist in many specialties, such as psychiatry and family medicine, but also across geographic locations, particularly in the Inland Empire, the San Joaquin Valley, and the northern and Sierra regions.<sup>2</sup> A major contributing factor is insufficient numbers of physicians completing residency training to replace those who retire.<sup>3</sup> To meet the growing demand and alleviate a public health crisis, California must enact policy to ensure an adequate physician workforce. One major way to impact the future physician workforce is to expand graduate medical education (GME), especially in underserved regions of the state and for underserved populations. Studies have shown that physicians tend to stay and practice near where they complete their residency.<sup>4</sup> In fact, California has the highest retention rate in the nation of physicians who complete GME in California, with 70.4% of physicians remaining in California after GME.<sup>5</sup>

Because there is no central GME planning effort at the federal or state level, the number and specialty types of GME graduates in the US — and in California — are largely determined by the individual sponsoring institutions that assume ultimate financial and academic responsibility for GME. Sponsoring institutions can include teaching hospitals, schools of medicine, and Federally Qualified Health Centers (FQHCs), as well as various other types of institutions, but all must be accredited by the Accreditation Council for Graduate Medical Education (ACGME). California was home to 74 GME sponsoring institutions in 2015, the most recent year for which data are available.<sup>6</sup>

## What Is Graduate Medical Education (GME)?

GME includes physician residency and fellowship training after graduation from allopathic or osteopathic medical school, domestically or internationally. GME is important because it determines the number and specialty types of practicing physicians in the workforce.

## KEY TAKEAWAYS

- ▶ There are insufficient graduate medical education (GME) positions in California to meet the demand for physicians, especially in shortage specialties and regions.
- ▶ Millions of federal dollars are available to assist with GME expansion in California: in particular, Medicare GME funds for Medicare GME-naïve hospitals, Medicaid matching funds for Medi-Cal managed care, and Department of Veterans Affairs (VA) funds for GME programs partnering with VA training sites.
- ▶ California has recently taken critical steps to invest more state dollars in GME expansion through the Song-Brown and Proposition 56 GME programs, but needs to protect that investment through the state budget process.
- ▶ A California governance structure is required to coordinate the complex and deeply fragmented system of GME subsidies, to guide GME expansion, and to improve transparency and accountability.
- ▶ California can learn from other states that have been successful in GME expansion.

Expansion of California GME may be accomplished by two complementary strategies: (1) expanding teaching capacity at the existing 74 California sponsoring institutions to include more trainees in existing programs or to add new, additional GME programs; and (2) establishing new sponsoring institutions in California that would oversee additional GME programs.

### Long-Term Funding Is Necessary for Program Stability

Graduate medical education is a process that requires a minimum of three years after graduating from medical school (e.g., family medicine, pediatrics, general internal medicine), and can require several additional years (e.g., psychiatry, general surgery). A program that commits to providing GME for any given physician is therefore committed financially to that physician for multiple years. For this reason, unstable GME funding strategies that provide funds to institutions/programs for a short period of time (e.g., one to two years) make GME strategic planning extremely difficult if not impossible.

**The main obstacle to expanding GME in California is lack of funding.** Graduate medical education at California institutions is highly subsidized, and funding typically derives from the federal government (through Medicare and Medicaid, the Department of Veterans Affairs, and the Health Resources and Services Administration), the California state government (through Medi-Cal, the Song-Brown program, and Proposition 56), and other sources (such as clinical revenues and community benefit dollars expended by health care delivery systems). This complex and deeply fragmented system of GME subsidies in California, and the associated lack of transparency and accountability, leaves decisions regarding which physicians to train and where largely at the discretion of individual sponsoring institutions. Decisions, therefore, are most often made in the best interests of the sponsoring institution without consideration for what is best for the state and public at large.

Despite the complexity and lack of coordination, clear opportunities exist for expanding GME in California.

This report presents recommendations for organizing and funding the expansion of GME in California based on review of the literature and qualitative interviews with GME experts within California and across the United States. This report was prepared for the California Health Care Foundation as a supplement to the *Guide to Graduate Medical Education Funding in California*.

## Recommendations for California

### RECOMMENDATION 1

**Establish a statewide GME governance council to provide centralized planning, oversight, coordination, advocacy, guidance, and accountability as GME programs are expanded and new GME programs are established.**

### ACTION STEP

**Provide centralized planning, oversight, coordination, advocacy, guidance, and accountability as GME programs are expanded and new GME programs are established.** California requires centralized oversight and planning now and in the future to meet the demand for a physician workforce that is adequate in terms of size, specialty, and geographic location. To date, decisions regarding which physicians to train and where have been made on an ad hoc basis at the level of the individual sponsoring institution, with no statewide coordination or accountability. This has led to an insufficient and maldistributed physician workforce, a trend that will continue without appropriate governance. With centralized planning, California initiatives and incentives could be developed to direct physician workforce development in ways that would best benefit the state. Similarly, state funding could be optimized by prioritizing those initiatives and incentives. A GME governance council would also allow state policies and initiatives to change and adapt as the health needs of the state change over time.

A new California GME governance council should comprise California experts in graduate medical education capable of providing centralized planning, oversight, guidance, and accountability to new and expanding

sponsoring institutions, while coordinating with existing state GME programs, such as the Song-Brown program, Medi-Cal, and the Proposition 56 GME funding program, to ensure that GME program development and investment are effectively and efficiently aligned with priority workforce needs.

#### ACTION STEP

**Advocate for California at the federal level, and promote federal GME reforms.** In addition to championing GME expansion and coordination in California, the council should join efforts of other states and organizations, like the [GME Initiative](#), to advocate for California at the federal level and to promote federal GME reforms such as those recommended by the Institute of Medicine in its [2014 report on GME](#).<sup>9</sup> Although many California

### Examples of Successful GME Governance Structures in Other States

**The state of New York** established the Council on GME (COGME) in 1987 to provide an ongoing assessment of physician workforce trends, training issues, and financing policies; advise and make recommendations to the commissioner of health and the governor; and implement any new initiatives. COGME is administered by an executive director and two staff members, and includes up to 30 members, who are recommended by the commissioner of health and appointed by the governor. Membership is broadly representative of health professional, hospital, and public interests. The council has four subcommittees: GME Reform, Primary Care and Workforce Development, Minority Participation in Medical Education, and the Steering Committee.

**The state of Georgia** established the Georgia Board for Physician Workforce (GBPW) to identify state physician workforce needs and meet those needs through support, medical education programs, and incentives to practice in medically underserved areas.<sup>7</sup> The GBPW administers physician scholarship and loan repayment incentive programs and collects data on outcomes and retention rates. The GBPW requires programs receiving state funds to meet certain metrics, such as physician retention, and will withhold funding until those metrics are met. The GBPW is administered by an executive director and seven staff members, and includes 15 board members, who are appointed by the governor and approved by the state senate.

In addition, the Board of Regents of the University System of Georgia (USG) established the GME Regents Evaluation and Assessment Team (GREAT Committee) to provide consultation, expertise, and recommendations on the development of new GME programs and teaching hospitals across the state. The GREAT Committee is made up of eight GME experts: seven representatives from the public and private Geor-

gia medical schools and the executive director of the GBPW. “The GREAT committee developed and implemented a process to assess whether interested nonteaching hospitals were capable of operating high-quality GME programs that likely would meet ACGME accreditation standards. The committee reviewed extensive hospital-specific data (including case mix index, patient and surgical volumes, etc.), along with financial data and projected budgets for GME start-up costs. Committee members along with staff from the USG provided technical expertise, support, and advice on new program development, minimizing start-up costs.”<sup>8</sup>

**The state of Texas** established the Texas Higher Education Coordinating Board (THECB) in 1965 to oversee all aspects of public postsecondary education, which now includes the state funding of GME. The THECB was created to coordinate the distinct higher education systems in the state, which consist of six different university systems, three universities without a system, and 50 separate community college districts, in an effort to ensure efficient use of resources and avoid redundancy. The THECB is made up of nine members appointed in staggered six-year terms by the governor and confirmed by the state senate. The THECB appoints a commissioner of higher education, who oversees daily operations. A governor-appointed student representative also serves on the board for a one-year term. There are three standing board committees within the THECB: the Committee on Academic Workforce Success; the Committee on Affordability, Accountability, and Planning; and the Agency Operation Committee. The THECB also has the Family Practice Residency Advisory Committee, which provides oversight and funding recommendations related to family medicine residency programs, and three formula funding advisory committees, which make recommendations for funding all sectors of higher education.

GME stakeholders could be involved in advocating for California at the federal level, the GME governance council should be empowered to coordinate these efforts.

## RECOMMENDATION 2

### Optimize federal, state, and private funds to expand GME in order to meet the demand for new physicians.

#### Federal Sources of California GME Funding

##### Centers for Medicare & Medicaid Services (CMS)

► *Medicare*, the largest federal contributor to GME funding nationwide and in California, provides GME payments directly to 119 teaching hospitals in California. In 1997 the Medicare GME cap was set for existing California teaching hospitals, and since that time the Medicare program has not funded any additional GME positions — in any specialty — at those hospitals. Since 1997 there has been a significant and persistent gap between California's proportion of the US population, proportion of US GME graduates, and proportion of CMS Medicare GME funding. In 2015, California constituted approximately 13.8% of the US population, yet trained 8.6% of US GME graduates and received 6.8% of the total CMS Medicare GME dollars. Further, over fiscal years 2008–2010, California ranked 26th among US states in the number of Medicare GME full-time equivalent (FTE) cap positions (19.36) per 100,000 population — despite being the most populous state during this time frame, with 12.1% of the nation's population. Federal policy changes are required to increase Medicare GME funding to existing teaching hospitals. Although the current federal political climate might not be ripe for Medicare GME policy reforms of this nature, in the long-term, California needs to find a way to advocate for a more just and equitable system of Medicare GME payment.

## ACTION STEP

**Prioritize GME expansion by assisting eligible Medicare GME-naïve hospitals in setting up new teaching programs.** California has a large number of hospitals and clinics that have never sponsored a GME program, have never been a Medicare teaching hospital, and are not subject to the 1997 Medicare GME cap. These hospitals are referred to as Medicare GME “naïve” hospitals. Many of these Medicare GME-naïve hospitals have the capacity to create new GME programs in shortage specialties, targeting underserved areas and populations. If one of these Medicare GME-naïve hospitals becomes a new Medicare teaching hospital, the Medicare GME cap will be calculated and implemented in the fifth year of the new training program. *In this way, California qualifies for new federal funding from CMS.*

In 2015, California had an estimated 260 Medicare GME-naïve hospitals, defined as not having received Medicare direct GME payments (DGME) or indirect medical education payments (IME) between 1996 and 2015. Some of these hospitals may have both the capacity and the interest to begin a GME program at their facility. The biggest obstacle to beginning a new GME program is funding. Medicare GME-naïve hospitals typically require start-up funding and technical assistance for two to three years while they establish a new residency training program and become accredited by the Accreditation Council for Graduate Medical Education (ACGME). However, once they are accredited, these hospital-based programs can fund their residency positions in perpetuity using federal Medicare GME dollars.

California should assist eligible Medicare GME-naïve hospitals in setting up new teaching programs. The current list of Medicare GME-naïve hospitals should be analyzed to identify those hospitals with capacity to establish new residency training programs in one or more specialties. Confirmation of naïve status should also be sought from a CME CMS intermediary to ensure eligibility. Once a list of eligible hospitals is established, the state should offer start-up funding and technical expertise to those hospitals interested in initiating GME in their hospital. Although start-up costs can be substantial, they represent a short-term investment in a long-term program that will eventually be sustained by federal funds.

## GME Expansion in Medicare GME–Naive Hospitals: The State of Georgia<sup>10</sup>

Faced with decades of physician shortages and continued population growth, Governor Nathan Deal, with bipartisan support from the Georgia General Assembly, made GME expansion a state priority. In 2010–2011, the state of Georgia had 10 teaching hospitals with 2,166 residency positions and roughly 575 graduates. In 2012, the state set a goal of adding 400 permanent residency positions by 2025.

Georgia decided on a GME expansion approach that would eventually rely on federal funding over the long term. The state's strategy was to provide start-up funding and technical assistance to establish new GME programs at Medicare GME–naive hospitals that were not constrained by the Medicare GME cap. State funds would be used to reimburse 50% of the start-up costs incurred by hospitals as they worked to establish their new teaching programs and apply for ACGME accreditation. Once accredited, the programs could enroll residents and bill CMS in perpetuity per the Medicare GME formulae.

State funds were allocated to the University System of Georgia (USG) Board of Regents (BOR), which established a GME advisory committee (the GREAT Committee) composed of state GME experts to implement expansion. The GREAT Committee identified potential Medicare GME–naive hospitals and established an application process and eligibility criteria for hospitals that applied for state GME expansion funding. The GREAT Committee focused on building primary care and general surgery programs, particularly in rural areas, and on developing opportunities for USG to collaborate with Georgia hospitals.

The first challenge for the GREAT Committee was to identify Medicare GME–naive hospitals, and then to determine those that were best suited to establish a new teaching program. Priority was given to hospitals that were able and willing to establish multiple GME programs within the same hospital, thus maximizing the Medicare cap that would eventually be imposed. The GREAT Committee used CMS cost report data and a hospital's Case Mix Index (CMI) to determine which hospitals should be targeted for the program. Out of more than 170 Medicare GME–naive hospitals in Georgia, 30 were identified by the GREAT Com-

mittee as potentially viable multiprogram teaching hospitals (based on adequate facilities, patient case mix, physician specialties, etc.). Some smaller hospitals were identified that could potentially develop one to two primary care programs. The BOR sent a letter to the identified hospitals, letting them know about the new state-funded GME expansion program and inviting them to apply by submitting a letter of intent and a proposed budget. Participating hospitals were required to seek ACGME accreditation and establish GME programs in primary care and/or general surgery (additional programs could be added as long as the main focus was on primary care and/or general surgery). The GREAT Committee tried to focus on geographic locations lacking existing programs and on shortage disciplines. Rural hospitals presented a challenge, as they had less capacity to support large programs.

Once a hospital was accepted into the program, a contract was drawn up between the hospital and the BOR. Georgia estimated GME start-up costs at a new teaching hospital to be \$2 million to \$8 million, depending on the number of programs to be started, the number of faculty to be recruited, and other factors. The state committed to bearing up to 50% of these costs with no ceilings or limits. Expenses that were not reimbursable by the state, such as ACGME-required capital improvements, could qualify toward the matching hospital funds. State GME expansion funds continued until the first resident began, at which time the hospital could begin billing Medicare GME.

As of January 2018, 27 GME programs had begun in eight new teaching hospitals, with a total of 328 new permanent residency positions. With new programs in eight different disciplines, Georgia is projected to have 613 new permanent residency positions by 2025 (see Table 1 on page 8). This reflects a 47% increase in GME capacity (i.e., number of first-year positions) compared to 2013. Sixty-four percent of the new residency positions are located in federally designated primary care Health Professional Shortage Areas; and 70.4% of the first cohort of family medicine and internal medicine graduates (27, as of January 2018) have remained in Georgia. This represents a marked increase from the retention rates at previously established programs (52.5%).

## GME Expansion in Medicare GME–Naive Hospitals: The State of Georgia, *continued*

**Table 1. GME Residency Training Programs in Georgia**

SPECIALTY	NUMBER OF NEW PROGRAMS	NUMBER OF NEW RESIDENTS*
Internal medicine	7	259
Family medicine	5	96
Psychiatry	3	60
Transitional year	5	55
Emergency medicine	2	54
General surgery	2	45
Obstetrics/gynecology	2	32
Pediatrics	1	12
<b>Totals</b>	<b>27</b>	<b>613</b>

\*Projections for when current new programs reach capacity in 2025.

Georgia spent just over \$19.2 million from fiscal year 2013 through fiscal year 2018 (the last year for new funding). Original projections were for \$22 million to be spent. The resulting state investment averaged \$31,000 per permanent residency position created. Additionally, new hospitals are receiving a substantially higher per resident amount (PRA) from CMS than older programs

For naive hospitals launching new GME programs, it is important to quickly scale up the programs, so that at the end of the five-year period the Medicare GME cap will be maximized. California can also advance its physician workforce priorities by requiring that new programs be opened in shortage specialties such as primary care and psychiatry.

- **Medicaid.** No federal guidance exists for Medicaid GME; instead, each state has the option to develop a Medicaid GME program — and to receive matching federal funds — under its Medicaid fee-for-service delivery system, managed care delivery system, or both. Hence, Medicaid GME programs vary substantially from state to state. Although most other states fund GME explicitly through Medicaid, California’s Medi-Cal program uses a different hospital payment mechanism through which payments for GME are

subject to the 1997 Medicare GME cap. For instance, Augusta University receives approximately \$80,000 per resident, while new programs will receive approximately \$135,000 per resident.

Beginning a new GME program at a Medicare GME–naive hospital presents numerous challenges, often not related to GME. For example, interested hospitals need to be in good financial health, as opening a new program would likely exacerbate any existing financial issues. Additionally, the willingness and desire of the hospital and local community to commit to beginning a teaching program were key to the program’s success.

Lessons learned from Georgia’s experience included the following:

- Becoming a “teaching hospital” can be a mission- and culture-changing decision for many hospitals.
- Hospital financial hurdles are often unrelated to GME and need to be resolved before beginning a teaching program.
- Identifying, recruiting, and retaining physician leaders (ACGME Designated Institutional Officials [DIOs], program directors, faculty) can be difficult, particularly in rural areas.
- Success requires collaboration between agencies (partner hospitals, academic affiliates, etc.).

not explicit and are instead bundled into the overall payments to hospitals for patient care services irrespective of the hospital’s degree of involvement in GME. California is one of only eight US states that does not have an explicit Medicaid GME funding program.

In 2018, California hospitals — in aggregate — are receiving federal Medicaid fee-for-service funding at the Upper Payment Limit, which is the federal limit placed on payment to each class of Medicaid providers. Because of the Upper Payment Limit on the fee-for-service side, if Medi-Cal returned to an explicit GME funding program, with a share of the Medi-Cal budget for hospitals allocated more explicitly on the basis of hospital GME activity, it is likely that it would be on a zero-sum basis. That is, the total aggregate funds paid to hospitals would not increase, but a



portion of that money would be reallocated among hospitals that do more or less GME.

There is currently a proposed Medi-Cal managed care State Plan Amendment under review by the federal government, which could provide up to \$900 million in additional federal funding for GME payments to designated public hospitals in California. If approved, the payments could be effective retroactively to January 2017. It is important to note, however, that the money is considered reimbursement for services already delivered and will not be earmarked for GME expansion.

#### **ACTION STEP**

**Explore using Proposition 55 funds to fund GME expansion through the Medi-Cal managed care system.** In order to obtain federal matching dollars for GME through the Medicaid program, a state must meet the requirement for matching funds. The state of California has not been willing to invest state general fund dollars into the Medi-Cal program for this purpose. One potential source of state dollars that could be used to draw down federal matching dollars through the Medi-Cal managed care system (not subject to the Upper Payment Limit) is Proposition 55: Tax Extension to Fund Education and Healthcare (2016). This proposition extended a temporary personal income tax on earnings over \$250,000 to fund education and health care in California. Up to \$2 billion each year was intended for Medi-Cal, through a formula administered by the Department of Finance; some of those funds could have been allocated to GME. However, due to the administration's calculation of the workload budget — a key component of the formula — the approach provided no additional funds for Medi-Cal in 2018–2019. Proper administration of the formula as the voters intended could result in millions of dollars that may be used to draw federal matching funds for GME through Medi-Cal managed care.

#### **ACTION STEP**

**Explore options for developing a broad Medi-Cal GME strategy.** Many states with explicit Medicaid GME financing have developed innovative programs with required reporting of metrics for transparency and accountability. The National Governors Association (NGA) Center for Best Practices has developed a road map highlighting several states' innovations in the Medicaid GME space. This document is forthcoming

from the NGA, and could prove to be useful in exploring options to develop a Medi-Cal GME program in California. This is potentially another avenue to receive stable, ongoing federal matching dollars for both hospital and clinic settings.

### **Department of Veterans Affairs (VA)**

The VA is a significant contributor to California GME funding, providing the second-largest amount of explicit GME funding from any one source. In 2017, 51% of California's residents and fellows from a wide variety of sponsoring institutions rotated through California's 10 VA teaching hospitals, with the VA spending \$93,864,109 in support of those GME positions in California.

Partnership with the VA benefits a teaching hospital by providing access to a large adult patient population, faculty, and facilities for teaching purposes. From a funding perspective, the VA pays the costs of faculty and trainees during the time that the trainees are rotating through the VA medical facility. Because the teaching hospital does not count the residents and fellows for the purposes of the Medicare GME cap during this time, and does not pay them using Medicare funds, the teaching hospital can enroll additional trainees "above the cap."

#### **ACTION STEP**

**Encourage GME expansion by providing guidance and technical expertise to leverage partnerships with the VA.** VA funds are particularly interesting because the VA goals for GME expansion align with those of the state of California. In 2014, for example, the Veterans Access, Choice, and Accountability Act increased funding to expand GME in underserved areas by developing new teaching sites and increasing the number of residents trained. The goal is to add up to 1,500 primary care, mental health, and other "high-priority" specialists for the VA nationwide. As of September 2018, the VA had approved 1,055 new positions nationwide, with 672 in primary care and psychiatry, including more than 100 in family medicine. In addition, in 2018 the federal VA MISSION Act granted the VA new authorities and opportunities, some of which are relevant to GME expansion. For example, the VA now has authority to pay sponsoring institutions for residents to rotate at tribal and Indian Health Service sites and community health clinics. Also, the VA can now pay for faculty salaries, curriculum development, and other start-up costs for new residency programs. Partnering with the VA to expand GME benefits both the

VA and the state health workforce and is another way to optimize federal funding for both existing and new GME programs.

### Health Resources and Services Administration (HRSA)

The *Teaching Health Center GME (THCGME) Program*, established by the 2010 Patient Protection and Affordable Care Act (ACA) and administered through the federal Health Resources and Services Administration, provides funding for primary care residency programs at community-based, ambulatory patient care centers, such as Federally Qualified Health Centers (FQHCs), community mental health centers, and rural and tribal clinics. Per the federal statute, primary care specialties in this program are defined as family medicine, internal medicine, pediatrics, internal medicine–pediatrics, obstetrics/gynecology, psychiatry, and geriatrics. The program is currently funded through fiscal year 2019. Future funding will need to be approved by the US Congress. Due to future fiscal uncertainties, current priorities are to stabilize the existing cohort; there is no federal funding available to increase the size of these programs or to establish new programs. There are currently six federally funded Teaching Health Centers in California, each graduating between two and 12 family medicine physicians each year.<sup>11</sup> One of these Teaching Health Centers also offers a pediatrics and a psychiatry program.

In the current federal health policy climate, HRSA is unlikely to fund expansion of the THCGME Program. Any expansion in GME at Teaching Health Centers, or the establishment of new Teaching Health Center–type entities, must be funded using nonfederal dollars. However, HRSA may be open to expansion in the future, so preparation and planning now will allow community-based, ambulatory patient care centers to act if the application process is reopened.

Note: Other federal sources of funding exist but are harder to quantify. Additional federal sources of California GME funding come indirectly as grants from the National Institutes of Health (NIH), the Centers for Disease Control and Prevention (CDC), and HRSA. Common grants from these agencies are research grants and faculty development grants.

## State Sources of California GME Funding

### ACTION STEP

**Reinstate the \$33 million per year of *Song-Brown program* funding and make this funding permanent beyond 2020. Consider expanding the annual allocation from the California Health Data and Planning Fund to the *Song-Brown program*.** The California Office of Statewide Health Planning and Development (OSHPD) Song-Brown program has a minimal permanent budget (roughly \$2.5 million per year) that derives from the California Health Data and Planning Fund, fees that are assessed on California hospitals, skilled nursing facilities, and long-term care facilities. In 2017, California’s state budget appropriated a \$100 million augmentation to the Song-Brown program over a three-year period, resulting in a substantial expansion. In fiscal year 2017–2018, 78 primary care residencies received Song-Brown funding. Reinstating the augmented funds and making them permanent beyond 2020 is critical to sustain support of primary care residencies in the state. In order to further expand primary care training capacity at existing sponsoring institutions, additional funds would need to be appropriated to the Song-Brown program. The state should therefore consider expanding the annual allocation from the California Health Data and Planning Fund to the Song-Brown program. As the Song-Brown program continues to grow, so should its accountability and transparency.

Song-Brown funds are distributed on a per-resident basis and can be expended on any valid activity within the residency program (e.g., faculty and staff positions, curricular innovations). However, it would be worth examining if new funds should be prioritized to pay the direct costs of residency positions.

Family medicine, pediatrics, internal medicine, and obstetrics/gynecology residency programs are eligible for Song-Brown funding. Song-Brown funds are competitive, three-year grants, with many more applicants than awardees, and can be awarded to both hospital-based residency programs and Teaching Health Centers that target underserved areas and underserved populations. Because the grants are both competitive and short term, sponsoring institutions have trouble relying on Song-Brown grants as a source of funding and are reluctant to pursue program growth due to future instability.

California should consider making the funding for an awarded residency position permanent, provided a program can demonstrate ongoing performance according to the goals of the Song-Brown program.

In addition to the Song-Brown grants awarded to existing programs, seven new sponsoring institutions received Song-Brown start-up funding — \$800,000 awarded once — to establish a new primary care residency program in fiscal year 2018–2019. Three family medicine programs, three internal medicine programs, and one obstetrics/gynecology program were funded, for a total expenditure of \$5.6 million; each of these new programs targets underserved areas and underserved populations.

Although historically a relatively small program, the Song-Brown program has been successful at placing physicians in areas of greater need. According to a recent analysis by OSHPD, graduates of residency programs sponsored by Song-Brown funds are 40% more likely to practice in federally designated Health Professional Shortage Areas than are other primary care physicians in California.<sup>12</sup>

#### **ACTION STEP**

##### **Secure the future of the Proposition 56 GME program by appropriately allocating the \$40 million annually on a permanent basis to pay for expansion of GME.**

Proposition 56, the California Healthcare, Research and Prevention Tobacco Tax Act of 2016, stipulated that \$40 million be allocated annually to support GME in California. The governor allocates these funds annually in the California budget, and appropriate allocation is essential to the success of the program. In fiscal year 2018, the University of California (UC) and Physicians for a Healthy California (PHC) signed a memorandum of understanding whereby UC and PHC collaboratively develop, administer, oversee, and implement a program that follows the provisions of Proposition 56, which specifies that accredited allopathic and osteopathic residency programs in internal medicine, family medicine, pediatrics, obstetrics/gynecology, and emergency medicine are eligible to apply for funding. Priority is given to direct GME costs for residency programs serving medically

underserved areas and populations. As it is a new source of funding, with the first awards to be issued in July 2019, the evolution of this program is still in process. Adequate transparency and accountability within the program need to be ensured as it progresses.

#### **ACTION STEP**

##### **Establish California Teaching Health Centers by providing long-term funding and technical assistance to eligible community-based health centers.**

New state funding is needed to continue GME expansion in community-based health centers, similar to the federally funded Teaching Health Centers GME Program. State investment is crucial, as these “California Teaching Health Centers” would supply physicians to the areas that are most in need, improving access by drawing faculty and residents to the area. Studies have shown that physicians tend to remain close to the area where they finish training.<sup>13</sup> The small Song-Brown program has also demonstrated success in retaining physicians to practice in areas of greatest need after completion of residency.

Another important reason to provide state subsidies to create GME programs in community-based health centers is that most primary care is actually delivered in community-based, ambulatory patient care settings — despite the fact that most federal GME funds are allocated through hospitals. By establishing state-funded California Teaching Health Centers, California will better prepare its future physicians for community-based practice.

New California Teaching Health Centers would require start-up funding over the first two to three years, followed by ongoing subsidies to pay for training since Medicare GME funds are issued to hospitals and not available for training in these settings. In addition, consulting and technical expertise should also be provided to assist with a major shift in the mission of the community-based health center to include teaching.

## State Investment in Graduate Medical Education: The State of Texas

Texas is the second-most populous state, behind California — and its population is diverse and ever expanding. To address the physician shortage within the state, Texas has made substantial investments in graduate medical education (for a summary of funds appropriated to various programs in recent years, see Table 2).

- ▶ The *Family Practice Residency Program*, created in 1977 and similar to the Song-Brown program in California, provides roughly \$10 million biannually, funding 29 family medicine residency programs and an estimated 773 family medicine residents across Texas. Unlike Song-Brown grants, the grants this program makes are not competitive but are awarded on a flat, per-resident basis. The funds go directly to the residency program and can be used only on expenses directly related to the training program. In fiscal year (FY) 2018, eligible family medicine programs received \$6,236.90 per resident. The Texas Higher Education Coordinating Board (THECB) is asking the current legislature for an additional \$2 million to increase program funding to \$7,600 per resident.
- ▶ The *State Formula Funding for Residency* started in 2006 at \$12.5 million per year and provides support for all residency programs, regardless of specialty. Fellowships are not included because fellowships are thought to generate revenue for the hospital. Eligible residency programs need to be sponsored by and tied to a medical school. In 2018, health-related insti-

tutions and public general academic institutions with medical schools received \$5,823.50 per resident. The THECB is asking the current legislature to increase the GME formula funding to \$6,654 per resident beginning in FY 2020.

In 2013, the state of Texas set a goal to have 10% more (a 1.1 to 1 ratio) first-year residency positions compared with medical school graduates by the year 2020. To accomplish this, the state legislature created several new grant programs to support GME expansion in the state: (1) the Planning Grant Program, (2) the Unfilled Residency Position Grant Program, (3) the New and Expanded Residency Position Grant Program, and (4) the Resident Physician Expansion Program. To receive expansion grants, residency programs have to add additional permanent first-year residency positions, and these grants pay only if a resident is actually in place, requiring an extensive verification process, completed the spring of each year. The majority of funding for these grant programs comes from state general funds. There is also a \$300 million endowment called the Permanent Fund for GME, located outside of the treasury and managed by the Texas Treasury Safekeeping Trust Company, which can be used only for GME funding. Although the principal can't be used, recent investment income has been roughly \$12 million per year. All GME expansion grant funds go directly to the residency program, with no indirect payments permitted and only costs associated with residency training

**Table 2. Texas Higher Education Coordinating Board General Fund Appropriation, by Program, FY 2014–2019**

GRANT PROGRAM	FY 2014–2015	FY 2016–2017	FY 2018–2019*
Planning and Partnership Grant Program	\$1,875,000	\$3,500,000	\$500,000
Unfilled Residency Position Grant Program	\$7,375,000	\$9,750,000	\$9,900,000
New and Expanded Residency Position Grant Program		\$7,200,000	\$24,375,000
GME Expansion Program†	\$5,000,000	\$32,550,000	\$62,275,000
<b>Total expansion appropriation</b>	<b>\$14,250,000</b>	<b>\$53,000,000</b>	<b>\$97,050,000</b>
Family Practice Residency Program	\$10,000,000	\$10,000,000	\$10,000,000
State Formula Funding for Residency	\$53,738,760	\$70,200,000	\$97,700,000
<b>Total GME appropriation</b>	<b>\$77,988,760</b>	<b>\$133,200,000</b>	<b>\$204,750,000</b>

\*Includes \$21.8 million appropriated from the GME Permanent Fund.

†In FYs 2014–2015, funding appropriated to the Resident Physician Expansion Program.

Source: THECB.

## State Investment in Graduate Medical Education: The State of Texas, *continued*

covered. Planning funds go to the facility planning the new residency program.

- ▶ The *Planning Grant Program* was intended to allow Medicare GME-naïve hospitals the ability to investigate the feasibility of establishing a residency program, as well as to develop a timeline and plan for implementation. Awards are spent on planning for a new residency program and require state reporting for accountability. Funding does not necessitate the opening of a program; if a recipient hospital determines that implementing a new teaching program is not feasible, the unused portion of the grant is returned to the state. Grantees are chosen in a competitive process. In 2015, the Planning Grant Program was expanded, as the Planning and Partnership Grant Program, to provide support for Medicare GME-naïve hospitals and also for existing teaching hospitals, medical schools, and community-based health centers interested in creating new residency programs. The program encouraged partnerships between applicants and existing GME programs for the purpose of developing new residency programs. During this round, there were 23 applicants and 11 awards. In 2017, the focus of this program changed again — this time to support applications to establish new residency programs in rural areas and in primary care and psychiatry. Once a program is accredited and is ready to start, it can apply for a new program expansion grant.
- ▶ The *Unfilled Residency Position Grant Program* provided \$65,000 per existing residency position that had not been filled due to lack of financial support. The state funded 25 new first-year positions in the program's first year and will continue funding those 25 positions for as long as the positions exist while initiating funding for the next first-year positions. Priority has been given to primary care, although the program has also funded unfilled anesthesiology and psychology positions.
- ▶ The *New and Expanded Residency Position Grant Program* awarded \$2,975,000 to 11 residency programs in FY 2015, creating 50 new first-year positions. The plan is to provide state funding for these additional positions in perpetuity.
- ▶ The *Resident Physician Expansion Program* requires community collaboration and has a competitive selection process. Eligibility is not restricted to

development of first-year positions, although 25 first-year residency positions were awarded. In FY 2015, 76 positions were awarded in total. In 2015, the Texas Legislature combined this program and others into an umbrella program called GME Expansion.

The 84th Texas Legislature, Regular Session, consolidated the Unfilled Residency Position Grant Program, the New and Expanded Residency Position Grant Program, and the Resident Physician Expansion Program into the single GME Expansion Program. Per-resident funding was increased to \$75,000, and overall position funding for the 2016–2017 biennium was increased to \$49.5 million. The additional funding allowed the new positions created in 2014 and 2015 to be maintained and provided enough funding to support the addition of approximately 130 new residency positions.

In 2017, the 85th Texas Legislature, Regular Session, increased funding to \$97 million to support and maintain the progress made. A portion of the funding, approximately \$22 million, was appropriated from the Permanent Fund for GME, which was created by the Texas Legislature in 2015. The increased funding allowed newly created residency positions to be maintained and provided an opportunity to establish new residency positions. As a result, Texas made substantial progress toward achieving its goal of having 10% more first-year residency positions than Texas medical school graduates. In 2017, Texas surpassed this goal, with 1,660 medical school graduates and 1,868 filled first-year resident positions — a ratio of 1.13 to 1.

Since the state legislature committed to expanding GME in Texas, almost 400 new first-year residency positions have been created, and 13 new residency programs have been established. In 2011, Texas offered 1,494 first-year residency positions, some of which went unfilled due to financial reasons; this represented a 1:1 ratio with Texas medical school graduates. In 2017, Texas had 1,868 filled first-year resident positions and had achieved its goal of having a ratio of 1.1 to 1 first-year residency positions to medical school graduates. However, due to growth in medical schools in Texas, 276 more first-year residency positions will need to be established by 2021 to maintain this ratio. The THECB is now asking the Texas legislature for an additional \$60 million, increasing total expansion funding to \$157.5 million, to support GME in 2019.

## Private Sources of California GME Funding

### ACTION STEP

**Solicit short-term foundation grants for new residency program start-up costs.** Private sources of California GME funding are difficult to quantify for California as a whole, but are significant. These sources range from private insurers that support GME implicitly by paying higher rates to teaching institutions, to private hospital systems that invest community benefit dollars to pay for residency positions beyond their Medicare cap. Private philanthropy also plays a role; for example, in 2013 the Shasta Community Health Center received a grant from the Blue Shield of California Foundation to help cover the start-up costs of establishing a new family medicine residency program, and between 2013 and 2016, The California Endowment contributed \$7 million annually to the Song-Brown program.

Another major source of private funding for GME in California is the clinical revenues generated by the residents and fellows themselves. Although residents in their first year of residency training (often called “internship”) face a steep learning curve and are unlikely to generate much clinical revenue in a fee-for-service setting, residents and fellows in the latter years of their training operate with increasing autonomy and are able to generate fee-for-service revenues more akin to those of their faculty colleagues. Revenues may vary by specialty, with more lucrative and procedure-based specialties, such as orthopedic surgery and emergency medicine, generating more clinical income relative to more cognitive-oriented specialties, such as family medicine and psychiatry. The extent to which residents and fellows are able to generate enough clinical revenues to offset the cost of their training remains a topic of much debate.<sup>14</sup>

## Summary

The first priority with regard to GME expansion in California is to establish a statewide GME governance council to provide centralized GME planning, oversight, coordination, advocacy, guidance, and accountability. Once this council is established, there are many opportunities to expand GME in underserved areas and for underserved populations, but substantial subsidies will be required.

The two most effective strategies for increasing the number of GME positions and programs in shortage specialties in California are (1) expanding training capacity at existing sponsoring institutions and (2) establishing GME programs at new sponsoring institutions. Federal Medicare funds are not currently available to expand existing GME programs, and obtaining federal Medicaid GME funding would require a major investment of California state matching funds. Substantial federal GME funding is available through partnerships with the VA. There are several existing sources of state funds — including Song-Brown and Proposition 56 funds — for expanding GME at existing sponsoring institutions. Private funds, such as community benefit dollars and clinical revenues, can also be leveraged.

To establish new GME programs, there is great potential in Medicare GME-naïve hospitals. California has approximately 260 Medicare GME-naïve hospitals, a subset of which could, with the necessary short-term start-up funding and technical assistance, launch new residency programs over the next few years. Start-up funding could be provided by Song-Brown or other state funds, or by private sources such as California-based philanthropic foundations. The state should also invest in establishing California Teaching Health Centers to provide GME in community-based settings.

### Recommendations for Expanding GME Funding in California

#### Establish a statewide GME governance council.

- ▶ Provide centralized planning, oversight, coordination, advocacy, guidance, and accountability as GME programs are expanded and new GME programs are established.
- ▶ Advocate for California at the federal level, and promote federal GME reforms.

#### Optimize federal, state, and private funds to expand GME in order to meet the demand for new physicians.

- ▶ Prioritize GME expansion by assisting eligible Medicare GME-naïve hospitals in setting up new teaching programs.
- ▶ Explore using Proposition 55 funds to fund GME expansion through the Medi-Cal managed care system.
- ▶ Explore options for developing a broad Medi-Cal GME strategy.
- ▶ Encourage GME expansion by providing guidance and technical expertise to leverage partnerships with the VA.
- ▶ Reinstate the \$33 million per year of Song-Brown program funding and make this funding permanent beyond 2020. Consider expanding the annual allocation from the California Health Data and Planning Fund to the Song-Brown program.
- ▶ Secure the future of the Proposition 56 GME program by appropriately allocating the \$40 million annually on a permanent basis to pay for expansion of GME.
- ▶ Establish California Teaching Health Centers by providing long-term funding and technical assistance to eligible community-based health centers.
- ▶ Solicit short-term foundation grants for new residency program start-up costs.

## Appendix. Key Informants

Lupe Alonzo-Diaz, CEO Physicians for a Healthy California	Cathy Martin, Vice President, Workforce Policy California Hospital Association
Conrad Amenta, Director of Health Policy California Academy of Family Physicians	Liz Martin, Program Chief California OSHPD
Jackie Bender, Vice President of Policy California Association of Public Hospitals and Health Systems	Anne McLeod, Senior Vice President Health Policy & Innovation California Hospital Association
Lauren Block, Program Director, Health Division National Governors Association Center for Best Practices	Fran Mueller, Chief Deputy Director California OSHPD
Susie Buda, Tax Policy Director Texas Senate Finance Committee	Shelley Nuss, Campus Dean and Designated Institutional Official, Augusta University/University of Georgia Medical Partnership
Thomas Burke, Executive Director New York State Council on GME	Melissa Omand, Song-Brown Program Manager California OSHPD
Marcia Collins, Director, Medical Education Department Texas Medical Association	Caryn Rizell, Operations Manager Healthcare Workforce Development Division California OSHPD
Daniel Dorsey, External Affairs Coordinator Georgia Board for Physician Workforce	Edward Salsberg, Director of Health Workforce Studies George Washington University
Jim Foley, President and CEO Managed Care Support Systems	Stacey Silverman, Deputy Assistant Commissioner Texas Higher Education Coordinating Board
Adam Francis, Director of Government Relations California Academy of Family Physicians	Mannat Singh, Director of GME The GME Initiative
Sarah Hesketh, Vice President of External Affairs California Association of Public Hospitals and Health Systems	Julie Spero, Director, North Carolina Health Professions Data System, Sheps Center for Health Services Research, University of North Carolina at Chapel Hill
LaSharn Hughes, Executive Director Georgia Board for Physician Workforce	Hemi Tewarson, Division Director, Health Division National Governors Association Center for Best Practices
Hovik Khosrovian, Primary Care Office Director California OSHPD	Stacie Walker, Deputy Director California OSHPD
Denise Kornegay, Executive Program Director Georgia Statewide AHEC Network	Hope Wittenburg, Director, Government Relations Council of Academic Family Medicine
Ross Lallian, Research Manager California OSHPD	
Randy Longenecker, Executive Director The RTT Collaborative	

Note: OSHPD is Office of Statewide Health Planning and Development.



## Endnotes

1. Janet M. Coffman, Margaret Fix, and Michelle Ko, *California Physician Supply and Distribution: Headed for a Drought?*, California Health Care Foundation, June 2018, [www.chcf.org](http://www.chcf.org).
2. Janet M. Coffman, Igor Geyn, and Margaret Fix, *California Physicians: Who They Are, How They Practice*, California Health Care Foundation, updated August 2018, [www.chcf.org](http://www.chcf.org).
3. Coffman, Geyn, and Fix, *California Physicians: Who They Are, How They Practice*, California Health Care Foundation.
4. Ernest Blake Fagan et al., "Family Medicine Graduate Proximity to Their Site of Training: Policy Options for Improving the Distribution of Primary Care Access," *Family Medicine* 47, no. 2 (February 2015): 124–30.
5. "2017 State Physician Workforce Data Book," Association of American Medical Colleges, 2017, [www.aamc.org](http://www.aamc.org).
6. Diane Rittenhouse, Alexandra Ament, and Kevin Grumbach, *Guide to Graduate Medical Education Funding in California*, California Health Care Foundation, September 2018, [www.chcf.org](http://www.chcf.org) (PDF).
7. "Purpose and Mission of the GBPW," Georgia Board for Physician Workforce, accessed February 7, 2019, [gbpw.georgia.gov](http://gbpw.georgia.gov).
8. Michelle A. Nuss, Ben Robinson, and Peter F. Buckley, "A Statewide Strategy for Expanding Graduate Medical Education by Establishing New Teaching Hospitals and Residency Programs," *Academic Medicine* 90, no. 9 (September 2015): 1264–8.
9. Jill Eden, Donald Berwick, and Gail Wilensky, eds., *Graduate Medical Education That Meets the Nation's Health Needs* (Washington, DC: National Academies Press, 2014).
10. Nuss, Robinson, and Buckley, "A Statewide Strategy for Expanding Graduate Medical Education by Establishing New Teaching Hospitals and Residency Programs," 1264–8; Denise Kornegay, *GME in Georgia: Growth, Funding, and Sustainability*, Georgia Statewide AHEC Network, October 18, 2016, [www.augusta.edu](http://www.augusta.edu) (PDF); "USG Board of Regents GME Expansion Project Highlights," September 14, 2018, internal document, University System of Georgia; Shelley Nuss, "GME Regents Evaluation and Assessment Team (GREAT): Guiding Principles," February 24, 2014, internal document, University System of Georgia; and "Georgia Hospital Selection Process for New GME Programs," Fall 2011, internal document, University System of Georgia.
11. "Find Grants," HRSA Data Warehouse, accessed February 8, 2019, [hrsa.gov](http://hrsa.gov).
12. Song-Brown anniversary promotional material, unpublished, 2018.
13. Fagan et al., "Family Medicine Graduate Proximity to Their Site of Training: Policy Options for Improving the Distribution of Primary Care Access," 124–30.
14. For more information on the difficulties measuring potential revenues from Graduate Medical Education, see Barbara Wynn, "Opening the 'Black Box' of GME Costs and Benefits: A Conceptual Model and a Call for Systematic Studies," *Journal of Graduate Medical Education* 7, no. 1 (March 2015): 125–7; Barbara Wynn, Robert Smalley, and Kristina Cordasco, *Does It Cost More to Train Residents or to Replace Them? A Look at the Costs and Benefits of Operating Graduate Medical Education Programs*, RAND Corporation, 2013, [www.rand.org](http://www.rand.org); Jeremy Stoller et al., "Financial Contribution of Residents When Billing as 'Junior Associates' in the 'Surgical Firm,'" *Journal of Surgical Education* 73, no. 1 (January–February 2016): 85–94; and Amitabh Chandra, Dhruv Khullar, and Gail Wilensky, "The Economics of Graduate Medical Education," *New England Journal of Medicine* 370 (June 19, 2014): 2357–60, doi:10.1056/NEJMp1402468.