California Health Care Foundation

August 2016

Preparing Physicians to Care for Underserved Patients:

A Look at California's Teaching Health Centers

The Teaching Health Center Graduate Medical Education program was established as part of the Affordable Care Act to increase the number of primary care physicians available to serve people in medically underserved areas of the United States. The Health Resources and Services Administration (HRSA) has awarded grants to 60 teaching health centers across the US. Six are in California.

This issue brief describes California's teaching health centers and discusses their progress to date toward increasing the number of primary care physicians practicing in underserved areas. It also identifies facilitators and barriers to sustaining California's existing teaching health centers and establishing new ones.

Most graduates of teaching health center residency programs continue to practice in underserved areas following their residency.

Key findings include:

- All six of California's teaching health centers operate in underserved areas of the state, including the Central Valley, the Inland Empire, and Shasta County.
- All six teaching health centers have attracted substantially more applicants than they can admit.
- Most graduates of teaching health center residency programs continue to practice in underserved areas following their residency. Many, however, have moved to different locations within the state.
- Key facilitators to the success of teaching health centers include:
  - Support from boards and CEOs even though they recognize that having a residency program means reduced revenue
  - Faculty who are passionate about teaching and mentoring residents and developing curriculum

Issue Brief

- Partnerships with hospitals that can provide inpatient training for residents — an accreditation requirement
- Resident selection criteria that identify candidates interested in serving medically underserved people and who are likely to practice in a safety-net setting after completion of their training

- Challenges to the long-term sustainability of teaching health centers include:
  - Lack of stable funding from HRSA
  - Tension between service and education missions, which is exacerbated in Federally Qualified Health Centers (FQHCs), whose revenue is based largely on the number of patient visits
  - Accreditation requirements that call for faculty and residents to devote a substantial amount of time to nonclinical activities and require residents to obtain a substantial amount of training in inpatient settings

Provisions of the California state budget agreement for fiscal year 2016-17 allocate $17 million for existing teaching health centers over the next three years, but the future of HRSA funding is uncertain. The amount of HRSA funding per resident has decreased from $150,000 to $95,000 per resident, and authorization for the program is up for renewal in 2017.

Background

The Affordable Care Act (ACA) has substantially increased the number of Americans who have health insurance. Many of the newly insured have low incomes and live in rural or inner-city areas that have historically suffered from shortages of health professionals. The ACA has likely exacerbated these shortages because people with health insurance use more primary care and preventive services than those who are uninsured.[1]

Anticipating the need to increase the supply of primary care providers to ensure that people who are newly insured have access to care, the authors of the ACA included a provision that established the Teaching Health Center Graduate Medical Education program. Under this $230 million, five-year initiative, the Health Resources and Services Administration (HRSA) provided grants to underwrite expenses for training primary care residents in Federally Qualified Health Centers (FQHCs), FQHC Look-Alikes, and other community-based clinics that provide care to medically underserved people. HRSA awarded grants to 60 new or expanding community-based, primary care residency programs that are training more than 550 residents nationwide.[2] Grants are awarded to community-based clinics or to graduate medical education (GME) consortia that partner with community-based clinics. GME consortia are formal associations of organizations participating in residency training that provide centralized direction and coordination to enable these organizations to collectively operate residency programs.[3] The program was reauthorized in 2015 for two years, through the end of fiscal year 2017. There are six teaching health centers in California that sponsor eight residency programs.

The authors of the ACA targeted Teaching Health Center Graduate Medical Education grants to primary care residency programs that train residents in community-based clinics because previous research suggests that physicians who are trained in safety-net settings are more likely to practice in such settings after they complete their training.[4] The program is also rooted in longstanding efforts to increase the amount of training that primary care residents receive in nonhospital ambulatory settings.[5] Despite the fact that most primary care physicians practice primarily in outpatient settings, they continue to receive most of their training in inpatient settings and in hospital-based outpatient clinics.[6] Training residents in FQHCs and other community-based clinics prepares physicians to practice more effectively in these and other settings in which many underserved people receive outpatient care.

This issue brief describes California's teaching health centers and discusses their progress to date toward increasing the number of primary care physicians practicing in underserved areas. The paper also identifies factors that leaders of these residency programs believe are critical to their success as well as major challenges to their continued operation and potential for replication in other underserved communities in California.

Information presented in this issue brief is based on a survey of teaching health center residency program directors and analysis of data from the annual survey of licensed clinics conducted by the California Office of Statewide Health Planning and Development. The authors also interviewed residency program directors, chief executive officers, and chief medical

officers of FQHCs and GME consortia that sponsor the residency programs.

Characteristics of California Teaching Health Centers

Table 1 lists the six teaching health centers in California and describes their major characteristics.

Locations. California's teaching health centers are located in medically underserved areas across the state. Four are located in the Central Valley and the Inland Empire, two regions with small numbers of primary care physicians (relative to their populations), compared to the state as a whole.[7] One teaching health center is in Redding, a small city in Northern California that functions as a regional hub for medical care. One is in an area of San Diego that is medically underserved despite the city's ample overall supply of primary care physicians. (See Figure 1.)

Figure 1. California Teaching Health Center Locations Compared to Regional Physician Supply

Note: See Appendix for a list of counties in each region.

Table 1. Characteristics of Teaching Health Centers

	ESTABLISHED	LOCATION	HISTORY	GOVERNANCE	SPECIALTY	RESIDENTS ENROLLED PER YEAR
Clinica Sierra Vista	2014	Bakersfield	Existing residency program	FQHC	Family medicine	18
Family Health Centers of San Diego	2014	San Diego	New residency program	FQHC	Family medicine	12
Fresno Healthy Communities Access Partners	2013	Fresno	New residency program	GME consortium	Family medicine	12
Shasta Community Health Center	2012	Redding	New residency program	FQHC	Family medicine	6
Social Action Community Health System	2012	San Bernardino	Existing residency programs (2), new residency program (1)	FQHC	Family medicine, pediatrics, psychiatry	27
Valley Consortium for Medical Education	2011	Modesto	Existing residency program	GME consortium	Family medicine	32

History. California's six teaching health centers were established over the four-year period from 2011 to 2014. Three teaching health centers operated residency programs prior to receipt of their teaching health center grants. One of these three also established a new residency program after receiving its grant. The other three teaching health centers operate residency programs established as a result of the teaching health center grants.

Governance. Four of the teaching health center grants in California were awarded to FQHCs, and two were awarded to GME consortia. One of the GME consortia was operating prior to the availability of teaching health center grants, and the other is a new GME consortium that was created after the grants became available.

Specialties. Six of the eight residency programs sponsored by California teaching health centers are in family medicine. One teaching health center also sponsors one residency program in general pediatrics and another in psychiatry. Although psychiatry is not a primary care specialty, increasing the number of psychiatrists committed to providing care to underserved populations is important because psychiatrists are less likely than physicians in any other specialty to provide care to Medi-Cal beneficiaries.[8]

Number of residents. The total number of residents enrolled in teaching health center residency programs on an annual basis ranged from a low of 6 at Shasta Community Health Center to a high of 32 at the Valley Consortium for Medical Education. New residency programs had fewer residents than older programs. The size of some residency programs is limited by available capacity for inpatient training. For example, Shasta Community Health Center depends on Mercy Medical Center, which has its own family medicine residency program, for inpatient training. Shasta would like to expand its residency program but cannot do so because Mercy does not feel that it can provide inpatient training to additional residents.

Funding. In addition to the HRSA grants, California teaching health centers obtain funding from a variety of other public and private sources. One of the most important sources of funding for primary care residency programs in California is the Song-Brown program, which has provided grants to family medicine residency programs since the mid-1970s. Since 2014, the program has also provided grants to residency programs in general internal medicine, general pediatrics, and obstetrics/gynecology. All six of the family medicine residency programs sponsored by the teaching health centers received grants from the Song-Brown program in 2014 and 2015. Clinica Sierra Vista, Family Health Centers of San Diego, Fresno Healthy Communities Access Partners, and Valley Consortium for Medical Education received additional Song-Brown funding in 2015 under a one-time initiative to support new family medicine residency positions. Provisions of the budget agreement for California's state budget for fiscal year 2016-17 ensure that Song-Brown funding will remain available to teaching health centers for the next three years. The budget includes an appropriation of $100 million over three years (approximately $33 million per year) to fund the Song-Brown program. Within the $100 million appropriation, $17 million is earmarked to support existing primary care residency programs based at teaching health centers, and $10 million is earmarked to support the establishment of new primary care residency programs, which could include new programs based at teaching health centers.[9]

Two teaching health centers, Clinica Sierra Vista and Valley Consortium for Medical Education, receive substantial county government funding. Stanislaus County's Board of Supervisors funds Valley Consortium because it is a successor to residency programs the county previously operated and funded. Clinica Sierra Vista launched its family medicine residency program when it was approached by Kern County to take over the administration of a residency program operated by Kern Medical Center, the county hospital. Clinica Sierra Vista entered into an eight-year agreement with the county under which the county serves as the inpatient training site and funds some of the costs associated with operating the residency program.

Social Action Community Health System receives financial support from the medical school with which it is affiliated, the Loma Linda University School of Medicine. This funding is an outgrowth of the Social Action Community Health System's history as a community service initiative of Loma Linda. Although Social Action Community Health System is an independent organization, its close ties with Loma Linda enable it to obtain more generous financial support from the medical school with which it is affiliated than other teaching health centers that have academic affiliations. Shasta Community Health Center and Valley Consortium for Medical Education are affiliated with the UC Davis School of Medicine, but the support they receive consists primarily of access to conferences and library resources for residents.

Ability to Attract Residents

All six teaching health centers have attracted far more applicants than they can admit. This is true of both established programs with an existing reputation and new programs. Interviewees attribute this to several factors. All reported that some residency applicants are seeking to train in FQHCs and other safety-net settings because their career goal is to practice in these settings. Some also stated that they benefit from positive word of mouth from enrolled residents. Others cited the educational opportunities that these residency programs provide. For example, Family Health Centers of San Diego is the largest provider of HIV services in the county and offers residents more intensive training in HIV care than most family medicine residency programs. Shasta Community Health Center has a palliative care rotation and a community medicine rotation during which residents and faculty provide care in homeless shelters and encampments.

Impact on Access to Care

The impact of California's teaching health centers on access to care in underserved communities in California is difficult to assess at this time because only four of the six teaching health centers had any graduates as of 2016 (Fresno Healthy Communities Access Partners, Shasta Community Health Center, Social Action Community Health System, and Valley Consortium for Medical Education). Clinica Sierra Vista and Family Health Centers of San Diego will graduate their first classes in June 2017.

For the four family medicine residency programs that have graduates, the authors used three metrics to assess their contributions to access to care for underserved populations. First, the authors asked teaching health centers to report how many graduates remained at the FQHC at which they were trained. This is the metric of greatest interest to FQHCs that serve as training sites for teaching health centers because one of their major motivations for participation is to improve recruitment and retention. Second, the authors asked how many residents practice at other locations in the county in which they trained. All of the counties in which teaching health centers are located have shortages of primary care physicians. Retaining primary care physicians anywhere in these counties is likely to improve access to care. Third, the authors asked about residents who practice in FQHCs or other safety-net facilities elsewhere in California. From the perspective of California as a whole, increasing the number of new graduates practicing in safety-net facilities anywhere in the state is a positive outcome.

As of July 2016, 81 residents have completed training at California teaching health centers. Eleven of the 81 graduates (14%) are practicing in the teaching

Table 2. Outcomes of California Teaching Health Centers Through 2016

		NUMER OF GRADUATES...		
	TOTAL	PRACTICING IN SAME THC	PRACTICING IN SAME COUNTY BUT NOT SAME THC	AT OTHER SAFETY-NET FACILITY IN CALIFORNIA
Clinica Sierra Vista*	None	Not applicable	Not applicable	Not applicable
Family Health Centers of San Diego*	None	Not applicable	Not applicable	Not applicable
Fresno Healthy Communities Access Partners	4	0	2	0
Shasta Community Health Center	4	1	0	2
Social Action Community Health System	6†	1	1	1
Valley Consortium for Medical Education	67	9	22	20
All Teaching Health Centers	**81**	**11**	**25**	**23**

*Will graduate first cohort of residents in 2017. †Data on 2016 graduates not available.

health centers in which they were trained. Twenty-five graduates (31%) are practicing elsewhere in the counties in which they were trained, and 23 (28%) are practicing in safety-net facilities elsewhere in California. (See Table 2 on page 5.) These numbers primarily reflect outcomes of the Valley Consortium for Medical Education because it is the oldest and largest teaching health center.

Although the proportion of graduates of teaching health centers who provide care to underserved people in California is impressive, the number of positions in teaching health center residency programs (107) is dwarfed by the number graduating from other primary care residency programs (3,477).[10] The proportion of graduates of these residency programs providing primary care to underserved populations is unknown but is likely to be smaller, particularly for internal medicine and pediatrics residency programs, because substantial proportions of graduates of residency programs in these specialties go on to sub-specialize.

Facilitators

Interviewees cited several factors that they believe contribute to the success their teaching health centers have enjoyed to date.

Support from boards and chief executives. Multiple interviewees reported that support from chief executives officers, chief medical officers, and boards of directors was critical to the success of their programs. Several chief executive officers stated that they worked hard to ensure that their boards of directors and chief financial officers had realistic expectations about the amount of patient care revenue that residents can generate. Several residency program directors stated that it was important to have a chief executive officer who supports faculty in taking the time needed to develop curriculum and teach residents.

Dedicated faculty. Several interviewees cited dedicated faculty as a major factor contributing to their success. These interviewees recruited faculty from among staff physicians who had worked at their FQHCs for a number of years and were interested in the opportunity to teach. One chief executive officer reported that two family physicians responded enthusiastically to the opportunity to develop a new residency program; this CEO believed that the new challenge motivated the physicians to remain at the FQHC. A chief medical officer of another FQHC reported that some physicians there enjoy teaching because they supervise residents on both inpatient and outpatient rotations and thus provide a broader scope of care than a typical physician at an FQHC. Several interviewees cited opportunities for teaching as important for retaining experienced physicians who might otherwise accept offers from other health care providers that pay higher salaries. However, several other interviewees reported difficulty recruiting physicians who want to serve as residency program faculty.

Ability to leverage relationships with hospitals. Several teaching health center leaders said that leveraging existing relationships with local hospitals was critical to their success. One FQHC that established a new residency program turned to a hospital at which the FQHC's ob/gyns delivered babies and its pediatricians staff the newborn nursery. The hospital was receptive to collaborating on the residency program but also needed help with primary care for patients discharged from its emergency department and inpatient wards. The FQHC responded by establishing a new clinic across the street from the hospital. Discharge planners at the hospital also have access to the FQHC's scheduling software and can schedule appointments with primary care physicians.

Another FQHC that established a new residency program found it necessary to rebuild its relationship with its partner hospital. Ten years ago, the hospital's family medicine residency program abruptly discontinued a track in which the FQHC had served as the primary training site. Physicians at the FQHC were interested in starting the new residency program but skeptical about partnering with the hospital again. Physicians on the hospital staff in two specialties needed for inpatient rotations (emergency medicine and obstetrics/gynecology) were initially unsupportive. Interviewees reported devoting substantial effort to overcoming these challenges. As a result, residents in both the FQHC-based and hospital-based residency programs train side by side, and the FQHC has recruited two residents from the hospital-based program to practice at the FQHC after they complete residency.

Effective resident selection criteria. In the United States, residency programs and prospective residents participate in the National Resident Matching Program under which programs and residents rank one another. All six teaching health centers in California reported that they screen applicants to ensure that they meet what the health centers considered to be the minimum academic standards necessary to successfully complete residency, such as a minimum score on the United States Medical

Licensure Examination, and then used additional criteria to rank these applicants. All consider evidence that candidates are, as one interviewee described, "mission driven," such as completing a clinical rotation in a safety-net setting or having volunteer or work experience in a safety-net setting. Other criteria used to rank candidates include family ties to the local community and an interest in practicing in the local community. Several teaching health centers prioritize candidates who reflect the racial/ethnic and linguistic diversity of their patients (e.g., applicants fluent in Spanish). One gives preference to physicians who have completed UCLA's International Medical Graduate program because they are required to practice in an underserved area for two years following completion of residency.

Challenges

Interviewees identified several major challenges to establishing and sustaining their teaching health centers.

Lack of stable funding. Interviewees cited uncertainty about future HRSA funding as the biggest barrier to sustaining teaching health centers. The program was reauthorized in 2015, but the amount of funding available per resident decreased from $150,000 to $95,000. Some teaching health centers' costs for faculty and resident salaries and benefits exceed that amount. Programs have found funds to continue operating for the time being, but due to budget concerns, one program reduced the number of residents it admitted and another dropped out of the National Resident Matching Program and filled positions outside the match. Interviewees do not believe their residency programs are sustainable over time unless HRSA restores per resident funding to the original level. In addition, the HRSA grant program was reauthorized for only two years, and it is unknown whether the program will be reauthorized again. The provisions of the California budget for fiscal year 2016-17 that allocate $17 million to teaching health centers over the next three years will help the health centers cope with the uncertainty regarding HRSA funding, but this funding is not a substitute for HRSA grants.

Even teaching health centers that have funding from sources other than HRSA and Song-Brown report that securing funding is an ongoing challenge. The executive director of one of the GME consortia described his job as "panhandler in chief" because he needs to raise $1.5 million per year to maintain the residency program. Even though his consortium enjoys support from multiple local health care stakeholders, he finds that he constantly needs to educate them about the consortium's contributions to the local primary care workforce and the need for their financial support.

Tension between education and service missions. Several interviewees described the challenge of blending the service culture of FQHCs, which tends to emphasize patient volume, with the education culture of residency programs, which places less emphasis on throughput. First- and second-year residents usually see fewer patients than physicians who have completed training, and faculty must dedicate time to supervising residents that could otherwise be used to see patients. Residents and faculty must also devote time to didactic training. This loss of productivity associated with teaching is challenging for FQHCs because their revenue is largely based on the number of outpatient visits. Several interviewees reported that residency program directors have had to push back against administrators who wanted faculty and residents to see numbers of patients that the directors believe are unrealistic.

The authors' interviews suggest that this tension is present in all teaching health centers and is especially salient in those FQHCs whose primary motivation is physician recruitment. Several FQHC CEOs stated that they may be reluctant to continue operating or participating in teaching health centers unless they are able to retain some graduates. These tensions are also greater in teaching health centers that established new residency programs than in those that have used HRSA grants to support existing residency programs. Interviewees at Valley Consortium reported that the tension between education and services is minor because the FQHC at which residents train has always trained residents and sees teaching as one of its core missions.

Accreditation requirements. To obtain HRSA grants, residency programs operated by teaching health centers must be accredited by the Accrediting Council on Graduate Medical Education (ACGME). Multiple interviewees noted that the ACGME has strict requirements for accreditation and that substantial investment of time and resources is needed to obtain and maintain accreditation. One FQHC had to remodel a clinic to provide residents with dedicated exam rooms.

The ACGME also requires residency programs to have a continuity clinic in which residents are assigned a panel of patients for whom they serve as the primary physician. Having a continuity clinic

enables residents to develop relationships with patients and gain experience with management and coordination of their care. A continuity clinic requires different staffing patterns than FQHCs often use for clinics that do not have residents. In clinics without residents, patients are often not assigned to a particular primary care physician and see whichever physician is available.

Several teaching health centers that started new family medicine residency programs reported that assistance from faculty at existing programs was critical to obtaining accreditation.

Conclusions

Findings from this study suggest that teaching health centers are a promising model for preparing physicians to provide primary care to underserved populations. Residents receive outpatient training in settings that are in great need of additional primary care providers and are trained by physicians who have devoted their careers to caring for underserved people. FQHCs also get an opportunity to observe residents in training and learn more about their capabilities than they do about physicians they recruit from other residency programs or from other practices. California teaching health centers are also using admission criteria that increase the likelihood that they will admit residents who will go on to practice in FQHCs or other outpatient safety-net practices.

In addition, teaching health centers provide a means for expanding residency training to additional areas of California that have shortages of primary care physicians. Unlike academic health centers, which are concentrated in California's largest metropolitan areas, FQHCs are located in underserved areas throughout the state. California also has a number of large, multisite FQHCs that may have sufficient resources to invest in creating a residency program and obtaining accreditation. The substantial increase in medical school enrollment in recent years also means that the number of people interested in completing residency in California has increased.

However, organizations that are considering establishing a teaching health center should proceed with caution. Teaching health centers face an inevitable tension between education and service missions that is not easily reconciled. FQHC executives and residency program directors need to communicate effectively and work together to minimize the loss of revenue involved in providing education.

Organizations in California that are considering becoming teaching health centers also face a lack of stable funding. Leaders of the six existing teaching health centers indicated that they would have great difficulty continuing their residency programs if the HRSA teaching health center grants are not reauthorized. The increase in Song-Brown funding provided in California's budget for fiscal year 2016-2017 will be helpful for the next three years but is not a substitute for HRSA funding. To be sustainable, new teaching health centers will need substantial internal resources and substantial financial support from federal, state, and local sources, such as county government.

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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.

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Endnotes

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Appendix. Regional Definitions, by County

Bay Area
Alameda
Contra Costa
Marin
Napa
San Francisco
San Mateo
Santa Clara
Santa Cruz
Solano
Sonoma

Central Coast
Monterey
San Benito
San Luis Obispo
Santa Barbara
Ventura

Central Valley/Sierra
Alpine
Amador
Calaveras
San Joaquin
Stanislaus
Tuolumne

Inland Empire
Inyo
Mono
Riverside
San Bernardino

Los Angeles
Los Angeles

North
Butte
Colusa
Del Norte
Glenn
Humboldt
Lake
Lassen
Mendocino
Modoc
Plumas
Shasta
Siskiyou
Tehama
Trinity

North Valley/Sierra
El Dorado
Nevada
Placer
Sacramento
Sierra
Sutter
Yolo
Yuba

Orange
Orange

San Diego
Imperial
San Diego

South Valley/Sierra
Fresno
Kern
Kings
Madera
Mariposa
Merced
Tulare