Training the Primary Care Workforce to Deliver Team-Based Care in Underserved Areas: The Teaching Health Center Program

#### **JUNE 2023**

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# **Policy Points**

- The Teaching Health Center Graduate Medical Education program is a model designed to align health workforce training with population health needs.
- Long-term financial uncertainty undermines the sustainability of teaching health centers.





## ABSTRACT

Access to high-quality primary care is critical to improving population health and ensuring a more equitable distribution of health and health care resources. In 2010, as a part of the Affordable Care Act, Congress created the Teaching Health Center Graduate Medical Education (THCGME) program to support the development of primary care medical and dental residency programs in community-based health centers. In the last decade, the THCGME program has been training primary care providers to deliver care to underserved populations and practice in interprofessional teams. The goal is for these clinicians to better address community health needs, including chronic disease management, maternal care, and integrated behavioral health. The THCGME program's successes – including training in team-based care settings that are responsive to community needs and training graduates who practice in medically underserved settings – can inform how and where we invest in training the primary care workforce, ways the nation can redesign and finance graduate medical education to meet population health needs, and how state health workforce investments can complement federal efforts to expand the workforce and improve health care for underserved populations.

# BACKGROUND

#### Primary Care and the Health Workforce

Primary care plays a crucial role in keeping individuals and communities healthy.<sup>1</sup> Evidence has long shown that primary care improves health outcomes and reduces health disparities.<sup>2</sup> As we move toward a health system that centers on health equity, it is critical that high-quality, full-scope, team-based primary care be available to underserved communities and populations.<sup>3,4</sup> Delivery of high-quality primary care for everyone in the community is only possible when there is an adequate supply and distribution of primary care providers. Today, more than 25% of Americans live in an area that has been designated by the federal government as a primary care health professional shortage area (HPSA).<sup>5</sup> While 20% of Americans live in rural areas, only 11% of physicians practice in these areas.<sup>6</sup> Underserved urban areas also face provider shortfalls; the odds of being a primary care shortage area are 67% greater for majority African American zip codes.<sup>7</sup> Evidence shows that where health care professionals train is strongly tied to where they practice.<sup>8</sup> This makes residency training a powerful policy lever to boost the supply of physicians and dentists in rural and underserved communities.

# The Mismatch Between Current Health Workforce Training and Population Health Needs

Despite increased public investment in graduate medical education (GME) training, most funding is still not reaching rural communities and health care settings where underserved populations receive care.<sup>9</sup> For example, in 2018 Medicare spent almost \$15 billion on GME, and 99% of funds went to urban areas in 2015.<sup>10</sup> Just 2% of all residency training occurs in rural areas, and 3.5% in safety-net clinics where a large number of medically underserved patients seek care.<sup>11,12</sup>

Further, more than 75% of primary care residency training occurs in hospitals, despite primary care's focus on community-based outpatient care.<sup>13</sup> Residents are more likely to stay in primary care and remain to practice in underserved settings after graduation if they have positive and high-quality community-based training experiences that both build their professional networks in underserved areas and encourage them to continue to practice in these communities.<sup>14,15</sup> As residents graduate, they bolster local physician and dentist supply in these communities, which increases access to care and narrows the mortality gap due to differences in health care access.<sup>16</sup>

Another challenge is that the US population is shifting toward the South and West, yet the plurality of GME training continues to occur in the Northeast and Midwest. Medicare spending on GME contributes to the growing disparity between where physician training is funded and where the population is expanding. The Balanced Budget Act of 1997 capped the number of residents at each teaching hospital eligible for Medicare GME payments. Effectively, that set the geographic distribution of Medicare GME positions to 1997 levels. Table 1 shows that per capita Medicare GME spending is four times higher in the Northeast than in the South or West despite the fact that the Northeast has only 2.5 times the number of residents per capita compared with the West.

Region	Federal Medicare GME Spending		State Medicaid GME Spending		GME Residents	GME Residents
	Total (in billions	Per capita (dollars)	Total (in billions	Per capita (dollars)	Number of residents	Per 10,000 population
Northeast	of dollars) 5.8(39%)	103	of dollars) 2.2(39%)	40	39,571(29%)	7.1
South	3.5(24%)	28	1.9(34%)	15	41,602 (31%)	3.3
Midwest	3.6(24%)	52	0.9(17%)	14	31,749(24%)	4.7
West	1.9(13%)	24	0.6(10%)	7	21,469(16%)	2.8
Total	14.8 (100%)	45	5.6(100%)	17	134,391 (100%)	4.1

Table 1: Medicare and Medicaid Spending on Graduate Medical Education (GME)Resident Training by Region, 2018

Sources: Robert Graham Center Analysis of Centers for Medicare & Medicaid Services 2018 Hospital Cost Reports, American Association of Medical Colleges Medicaid Graduate Medical Education Payments: Results from the 2018 50-State Survey, 2017-2018 Accreditation Council for Graduate Medical Education Data Book, and U.S. Census Bureau region definitions and data. Table design from United States Government Accountability Office, Physician Workforce: HHS Needs Better Information to Comprehensively Evaluate Graduate Medical Education Funding, 2018. In 2014, the National Academy of Medicine concluded Medicare GME payments were not meeting population health needs and disincentivized training outside of the hospital, where most health care is delivered. Statutory funding formulas link payments to inpatient reimbursements, tying Medicare GME to hospitals and disadvantaging community-based programs. Furthermore, Medicare GME spending is not designed to be responsive to changing health workforce needs or the need to train more primary care providers in community-based settings.<sup>17</sup> The Medicare GME system lacks mechanisms for reallocating funding to support specialties, location, and content of training to meet national health needs. In addition, despite the growing need for team-based primary care delivered by an interprofessional team (e.g. doctors, nurses, pharmacists, social workers, dentists), Medicare GME largely focuses on physician training rather than interprofessional health workforce training.<sup>18,19</sup>

In response to these challenges and an overall lack of accountability for Medicare's GME investments to be responsive to population health needs, new GME programs had to be developed to train health professionals in the specialties, communities, and settings where they are most needed.

## THE TEACHING HEALTH CENTER PROGRAM

Recognizing the need to invest federal funds in training that increased the availability of physicians in the specialties and communities where they were most needed, Congress established the Teaching Health Center Graduate Medical Education (THCGME) program, funded through the Health Resources and Services Administration (HRSA), as part of the Patient Protection and Affordable Care Act (ACA) of 2010.<sup>20</sup> With an emphasis on increasing the number of health care professionals caring for medically underserved populations, the THCGME program funds the training of primary care medical and dental residents in designated teaching health centers (THCs). THCs are unique in that they must be sponsored by community-based outpatient health centers rather than hospitals, making them accountable for meeting the community health centers, including federally qualified health centers, rural health clinics, and Tribal and Urban Indian Health Centers.<sup>21</sup>

Community health centers serve some of the nation's most underserved populations, reaching one in 11 people in the US, including one in eight children, one in seven people who are members of racial or ethnic minority groups, one in five Medicaid beneficiaries, one in five uninsured persons, one in five rural persons, and one in three people in poverty.<sup>22,23</sup> GME programs housed in health centers train residents as part of interprofessional teams and prepare physicians and dentists to deliver primary care, including for individuals living with substance use disorders, depression, pulmonary disease, HIV, hepatitis C, and diabetes.

# **TEACHING HEALTH CENTER PROGRAM OUTCOMES** Health Workforce Outcomes

Unlike GME training funded by Medicare, HRSA-funded THCGME programs are required to report their program's outcomes annually. Mounting evidence from these data suggests that the THC model produces physicians and dentists who are dedicated to addressing the health care needs of underserved populations and to practicing in communities of need. In 2021-2022, 932 primary care residents trained in 59 THCs across the United States. Since the THCGME program began 11 years ago, 2,207 new physicians and dentists have graduated from THCs and entered the workforce. As shown in Table 2, 65% of THC graduates are practicing in primary care, compared with 20.4% of all U.S. residency graduates.<sup>24,25</sup> Fifty-six percent of THCGME graduates are practicing in medically underserved areas, compared with 24.1% of all US residency graduates.<sup>26,27</sup>

One in four THC graduates are practicing in federally qualified health centers, 7% in critical access hospitals, and 4% in rural health clinics.<sup>28</sup> Table 3 shows that in family medicine, THC graduates are more likely than non-THC graduates to practice in medically underserved areas, in rural locations, and within five miles of their training site. Dentists trained in THCs are 20% more likely to practice in health centers than non-THC dental residency graduates.<sup>29</sup> Additionally, one in five THC graduates identified as a member of an underrepresented minority group, compared with 15% of all US medical residents in training from 2021-2022. Evidence also shows that providers from underrepresented backgrounds are more likely to practice. <sup>30,31</sup> Prior studies have demonstrated that physicians from rural backgrounds are more likely to go into rural practice. Data are not available on the percentage of Medicare-funded residents from rural backgrounds, but 19% of THC residents report being from a rural background, which nearly aligns with the 20% of Americans who live in rural areas.<sup>32</sup>

Postgraduate Outcome	THCGME Graduates	All U.S. Residency Graduates
Percentage of graduates in primary care	65%	24.2%
Percentage of graduates practicing in federally qualified health centers	25%	5.4%
Percentage of graduates practicing in rural health clinics	4%	2.1%

#### Table 2: Health Workforce Outcomes of THC Medical Residents

Sources: Chen C, Petterson S, Phillips RL, Mullan F, Bazemore A, O'Donnell SD. Toward graduate medical education (GME) accountability: measuring the outcomes of GME institutions. *Acad Med.* 2013;88(9):1267. Health Resources and Services Administration. Teaching Health Center Graduate Medical Education Program: Academic Year 2021-2022 Data.

#### **Table 3: Practice Setting of Family Medicine Graduates**

Postgraduate Outcome	THCGME Family Medicine Graduates	Non-THCGME Family Medicine Graduates
Percentage of graduates practicing in medically underserved areas	35.3%	18.6%
Percentage of graduates practicing in rural areas	17.9%	11.8%
Percentage of graduates practicing within five miles of where they trained	18.9%	12.9%
Percentage of graduates practicing in federally qualified health centers or look-alikes	26.7%	11.7%

Note: All comparisons for these outcomes are statistically significant with P-values < 0.05. Source: Davis CS, Roy T, Peterson LE, Bazemore AW. Evaluating the teaching health center graduate medical education model at 10 years: practice-based outcomes and opportunities. *J Grad Med Educ*. 2022;14(5):599-605.

As the Council on Graduate Medical Education noted in its 24th report, physician training needs to be designed around the unique and varied health needs of rural and underserved communities.<sup>33</sup> Physicians training in THCs are embedded in team-based models of care that tailor their care delivery approach to meet the specific and diverse health and social needs of the communities in which they are training. In 2021-2022, 4,900 students, residents, and other health care professionals, including nursing, social work, pharmacy, and allied health professionals, trained alongside THC residents.<sup>34,35</sup> For example, nationally, the number of overdose deaths increased dramatically during the pandemic from 70,630 to 91,799 deaths annually, and rural areas have been hit hardest in part because a lack of available and adequately trained primary care providers who feel clinically prepared to deliver treatment.<sup>36,37</sup> To meet these needs, 83% of THC residents received training on opioid use treatment, and 67% received specific training in medication-assisted treatment for opioid use.<sup>38</sup>

### **Clinical Outcomes and Service Expansion**

Medical and dental residents training in THCs play a significant role in expanding access to and improving the quality of care. Since the program began, THC residents have provided 7.9 million hours of patient care in medically underserved and rural settings.<sup>39</sup> In 2021-2022 alone, medical

and dental residents provided care to 792,000 patients who might otherwise lack access to health services if THCGME funding were to end or be reduced.<sup>40</sup> THCs have seen more visits for behavioral health conditions and improved child health outcomes compared with community health centers that do not have a residency program.<sup>41</sup>

Family medicine graduates of THCs, who account for 61% of the program's graduates, have a broader scope of practice than non-THC graduates, meaning that they are more likely to provide a greater variety of services for their patients. These THC graduates are more likely to provide treatment for opioid use disorder, offer behavioral health care, and perform outpatient gynecological procedures.<sup>42</sup> Training and practice in delivering a broader scope of care ensures that THC graduates can effectively serve their patients for decades to come.

#### **Financial Outcomes**

Because the THCGME program is required by Congress to report annually on where graduates go on to practice, it serves an excellent model for ensuring other public investments in training are held accountable to their goals and are aligned with population health needs.<sup>43,44</sup> THCs receive \$160,000 per resident training in their programs. HRSA tracks how these funds are spent and uses performance measures to track the health workforce outcomes of THCs. The data show that THC residents and graduates produce substantial savings for the federal government. Based on evidence of per-person savings for patients served in community health centers, cost savings from THC resident visits are estimated at \$57.5 million. Upon graduation from residency THC graduates could reduce medical spending by \$169 million annually.<sup>47</sup> Residency training in lower-cost areas is associated with more cost-efficient care after graduation from residency.<sup>48,49</sup> Combined savings of the THC program may have resulted in an estimated \$1.8 billion in Medicaid and Medicare savings from 2019 to 2023.

#### Teaching Health Centers Face an Uncertain Financial Future

Since its creation in 2010, the THCGME program has faced several "funding cliffs," with federal funding set to expire unless Congress acted to extend the program (see Table 4). In December 2020, Congress passed the Consolidated Appropriations Act of 2021, which included a three-year extension of the program through Sept 30th, 2023.<sup>50</sup> Gaps in funding create uncertainty for programs and residents. Programs struggle to complete the three years of training for current residents and face challenges in recruiting new classes when there is no guarantee of funding. THCGME funding uncertainty can also disincentivize community-based health centers from investing in the start-up of new residency programs; it takes years to develop the educational infrastructure to meet accreditation standards, especially in resource-limited settings.<sup>51,52</sup>

Academic Year	Number of Residents in Training	Number of Residency Programs Funded	Funding Amount	Funding Cliffs <sup>a</sup>
2011-2012	63	11	\$230,000,000 <sup>b</sup>	
2012-2013	158	22		
2013-2014	361	44		
2014-2015	600	60		
2015-2016	758	60	\$60,000,000	
2016-2017	771	59	\$55,900,000	Program faced funding cliff
2017-2018	847	57	\$126,500,000	
2018-2019	858	56	\$126,500,000	Program faced funding cliff
2019-2020	883	56	\$126,500,000	
2020-2021	912	60	\$126,500,000	
2021-2022	932	59	\$259,290,200°	
2022-2023	960	72	\$259,290,200°	Program faces funding cliff in September 2023

#### Table 4: THCGME Program Funding, Residency Training, and Funding Cliffs, 2011-2023

Sources: Health Resources and Services Administration. Teaching Health Center Graduate Medical Education Program: Academic Years 2011-2023 Data.

Notes: Funding data from the Congressional Resource Service and HRSA Budget in Brief.

<sup>a</sup> Funding cliffs are defined as instances in which the congressional authorization for program funding is set to expire at the end of the fiscal year.

<sup>b</sup> The ACA provided \$230 million in funding for FY2011-2015.

<sup>c</sup> The American Rescue Plan Act of 2021 provided \$330 million in funding from FY2021 to FY2023 for THCGME and the Teaching Health Center Planning and Development Program (THCPD). Approximately \$140 million per fiscal year has been or will be allocated for THCGME programs.

#### Teaching Health Center Planning and Development Program

While THCGME provides ongoing payments to sustain the community-based outpatient residencies, development of THCs is challenging given the significant time and resources required to create academic partnerships, develop a curriculum, prepare a practice for hosting learners, recruit faculty and staff, establish an annual budget, and attain accreditation.<sup>53</sup> Both start-up funding and technical assistance can support health facilities in navigating barriers,

launching successfully, and becoming sustainable.<sup>54,55</sup> To this end, Congress authorized the Teaching Health Center Planning and Development Program (THCPD) as a part of the ACA. Unfortunately, although the THCPD program was authorized, funds were not appropriated for over a decade.

In 2021, Congress, for the first time, provided funding for the THCPD program as a part of the American Rescue Plan Act. The THCPD program currently provides up to \$500,000 in seed funding and technical assistance to help community-based ambulatory care centers to create new residency programs in rural or urban underserved locations. In 2021, HRSA awarded THCPD grants to 47 health centers across 26 states to develop residency programs in family medicine, psychiatry, internal medicine, pediatrics, and dentistry, and an additional 46 awards in April 2023 to further grow training opportunities.<sup>56</sup> The THCPD funding facilitates the establishment of new THCs. However, the American Rescue Plan Act funding was one-time funding which ends on September 30, 2023, creating further uncertainty.

# **TEACHING HEALTH CENTER CASE SERIES**

The THCGME program's successes can inform how and where we invest in training the primary care workforce, how the nation can design and finance GME to meet population health needs, and how state health workforce investments can complement federal efforts to expand workforce and enhance care in underserved communities. The case series below and Table 5 highlight ways that THCs have designed training to address local community health needs, innovate in clinical education, increase patients' access to care, and bolster workforce supply.

#### Osteopathic Medical Education Consortium of Oklahoma (OMECO) Cherokee Nation Family Medicine Residency — Tahlequah, Okla.

Addressing Native American Health Care Needs: Native American populations face persistently higher mortality rates from preventable causes. Their life expectancy is 5.5 years lower than that of all other Americans.<sup>57</sup> The persistent shortage of health professionals in Tribal communities is one contributing factor.<sup>58</sup> The Indian Health Service (IHS) reports vacancy rates ranging from 21% to 46%.<sup>59</sup> Staffing shortages have forced IHS hospitals to suspend critical services, including obstetrics and emergency care. Developing medical residencies in Native American communities is an effective strategy to recruit and retain physicians, yet only a few programs exist in IHS facilities.<sup>60</sup> Limited funding, minimal partnerships with academic medical centers, and difficulty recruiting faculty make development of GME programs in IHS service units challenging. The THCGME program has facilitated a successful pathway of GME development for American Indian and Alaska Native nations.

The Teaching Health Center Program: The three-year Cherokee Nation Family Medicine Residency educates physicians in rural Tahleguah, Oklahoma, with all training occurring in IHS facilities. Training is designed around meeting pressing population health needs, such as treatment for hepatitis C, diabetes, and opioid use disorder and increasing access to care for Native Americans. The program began training doctors in 2010 with funding from the Cherokee Nation. In 2019, to expand and further enhance the recruitment and retention of physicians in the Tribal health system, the Cherokee Nation applied for THCGME funding to convert its program to a THC. Additional funding and technical assistance through the Rural Residency Planning and Development program – another federal program aimed specifically at supporting the development of rural residency programs - helped facilitate the development of a THC, which is sponsored by the Osteopathic Medical Education Consortium of Oklahoma (OMECO).<sup>61</sup> OMECO also sponsors an internal medicine THC in Tahleguah, which includes the Oklahoma State University College of Osteopathic Medicine as a consortium member. The partnership with OMECO helped the Cherokee Nation open the first Tribalaffiliated medical school in the U.S. in 2020, the Oklahoma State University College of Osteopathic Medicine at the Cherokee Nation.<sup>62</sup> The Cherokee Nation provides additional financial support for costs not covered by THCGME funding.

**Program Outcomes:** The THCGME funding enabled the Cherokee Nation program to increase the number of residents it trains per year from 12 to 24, rapidly reducing wait times for assignment to a primary care physician from nine months to three months. Annually, 12,000 patients are seen as a result of the THC. The Cherokee Nation program has also been highly effective at recruiting and retaining Native American medical students. Thirty percent of residency program graduates continue to practice within the Cherokee Nation health system upon graduation.

#### Authority Health – Detroit, Mich.

Addressing Health Care Needs in Urban Underserved Communities: Individuals in Detroit's east side and rural Monroe County have faced shortages of physicians and a lack of access to behavioral health services, chronic disease management, and preventative health care. In 2012, Authority Health received funding to establish a THC. The program focuses on increasing training of primary care residents in medically underserved areas and improving access to care for underserved Detroit communities.

The Teaching Health Center Program: The THC, which is sponsored by the Detroit Wayne County Health Authority GME Consortium, has four accredited programs (internal medicine, family medicine, pediatrics, and psychiatry) and is the second-largest THC in the United States. Authority Health's GME work is supported by THCGME funding, state grants from the Michigan Department of Community Health, and several foundation grants.<sup>63</sup> Seventy-eight medical residents across four specialties currently train in both urban and rural areas in Michigan, providing primary care for underserved populations. Through partnership with Michigan State University College of Osteopathic Medicine and numerous community health facilities, residents train across 10 community mental health agencies, three hospitals/health systems, the Detroit Veterans Administration, and over 40 community health centers and private physician offices. In these settings, residents learn to deliver primary care to people at-risk for multiple chronic conditions in multidisciplinary group-practice models that integrate doctors with nurses, social workers, and other health professionals in community-based settings. The Authority Health programs also uniquely offer a Certificate in Population Health and Health Equity, in partnership with the University of Michigan's School of Public Health.

**Program Outcomes:** Residents have increased access to primary care, providing over 80,000 patient visits a year that would not exist without the THC program. In addition, the THC residency program has allowed Authority Health to expand the availability of evening care, assist patients with insurance enrollment, and integrate residents into nonclinical settings via a community medicine rotation. Finally, the Authority Health THC has positively impacted health workforce recruitment and retention. The THC has had 149 graduates since inception, with 61% practicing in medically underserved areas, 48% remaining in Michigan, and 13% working in FQHCs.

# Mountain Area Health Education Center (MAHEC) – Asheville and Hendersonville, N.C.

Addressing Health Workforce Shortages in Rural Areas: Due to shortages of physicians and inadequate access to care for underserved populations in rural Western North Carolina, the Mountain Area Health Education Center (MAHEC) partnered with Margaret Pardee Hospital and Blue Ridge Health, a community health center in Hendersonville, NC, to launch a family medicine residency in 1994. The success of the program in improving workforce retention and access to care catalyzed the development and expansion of other residencies in OB/GYN, psychiatry, pharmacy, and surgery, but they were limited in growth due to the inability to fund additional new residency positions through Medicare. When THCGME funding became available, MAHEC converted this family medicine residency program and several others to THCs to expand their programs in 2013.

The Teaching Health Center Program: MAHEC receives five THC awards that support 18 residency positions in underserved medical and dental training sites at community-based health centers, rural health clinics, and Tribal-affiliated health centers. The MAHEC THC utilizes a consortium model partnering with the University of North Carolina's schools of medicine, dentistry, pharmacy, and public health. The residency programs are also supported through state appropriations. These relationships have helped to foster a robust team-based care infrastructure across training sites where residents work in partnership with other health professionals to deliver high-quality primary care to their patients. Residents are taught by physicians, physician assistants, family nurse practitioners, certified nursemidwives, social workers, and pharmacists. Residents, through this training, deliver education and care to farm workers, the unhoused, and individuals living with substance use disorder. **Program Outcomes:** THCGME funding resulted in a 38% increase in the number of residents in training from 2014 to 2022. THC family medicine residents provide 1,850 patients visits during their three years of training, creating direct access to care for at least 7,000 primary care visits annually to patients regardless of their ability to pay. In addition, MAHEC was able to recruit and hire additional program faculty who teach residents and see patients, further expanding primary care access in western North Carolina. THCGME funding has also helped attract more residents who speak Spanish, which is important given that a high percentage of the patient population is Spanish speaking. These changes amount to what one residency program leader described as a "cultural change, where the THC grant helped form relationships and created this shared vision that ultimately allowed for the growth of the FQHCs in the community and improved access." Many MAHEC THC graduates continue to work with underserved populations after graduating, with 81% practicing in a medically underserved area, 57% in North Carolina, and 29% in a rural area.

#### Northwest Dental Residency – Yakima, Wash.

Addressing Oral Health Needs: Dentists are poorly distributed in the United States; on average rural communities have 30.3 dentists per 100,000 population, compared with urban areas, which have 65.4 dentists per 100,000 population.<sup>64,65</sup> Not only do dentist workforce shortages reduce access to care, but many dentists limit their care to patients who have private insurance, disadvantaging Medicaid beneficiaries and uninsured patients.<sup>66</sup> Dentists who receive postgraduate training in community health centers are more likely to practice in health centers and care for children covered by Medicaid.<sup>67</sup> Community-based residency training opportunities for dentists are limited as most dental residencies are sponsored by dental schools.

The Teaching Health Center Program: In 2006, Northwest Dental Residency launched its one-year Advanced Education in General Dentistry residency based at the Yakima Valley Farm Workers Clinic in rural Washington, aiming to bring dental care to migrant and seasonal farmworkers. A small private foundation grant and state funding supported the program's start-up and launch. In 2011, Yakima Valley Farm Workers Clinic expanded the training program through THCGME. The program trains residents in a community-based setting to deliver integrated oral health and primary care. Along with general dentistry, the Yakima Valley Farm Workers Clinic trains pediatric dentistry residents, nurse practitioner residents, and family medicine residents and fellows, as well as other health professionals in the clinic. The Yakima Clinic is a unique and strong example of a THC providing integrated primary and oral health care. Because patients with diabetes are at greater risk for tooth decay, cavities, and gum disease, dental residents work closely with the medical providers to improve the oral health of patients with diabetes as a part of a holistic treatment plan. Unlike most dental residents that train in dental schools, the Northwest Dental Residency places residents in health centers where they experience one-to-one relationships with a supervising dentist. As a result, residents have exposure to higher patient volumes, treat patients with more complex acute needs, and provide preventative dental education for underserved populations.

**Program Outcomes:** The program's residents provide an average of 2,500 patient encounters per year, bringing approximately 20,000 dental visits annually to rural communities. The clinic has helped reduce wait times for low-income patients who do not have access to regular dental care or specialists. Seventy-two percent of program graduates are practicing in Washington, 64% are practicing in underserved areas, 40% continue to practice in FQHCs, and 15% remain on staff at the health centers where they trained. One leader of the dental residency program describes the THCGME program as the "future of health care training, because if we can't get these providers, whether medical or dental, out into rural communities, we're going to have the same inequities in access to care we have now."

	Program Description	Access-to-Care Outcomes	Workforce Outcomes
OMECO Cherokee Nation Family Medicine Residency — Tahlequah, OK	Rural-based THC sponsored by a consortium with all training occurring in Indian Health Service facilities.	12,000 patient visits conducted by family medicine residents annually. Wait time for a pri- mary care provider reduced from nine to three months.	30% of gradu- ates practicing in Cherokee Nation after graduation.
Authority Health — Detroit, MI	Consortium- sponsored THC with internal medicine, family medicine, pediatrics, and psy- chiatry residencies in rural and urban settings.	80,000 patient visits conducted by resi- dents annually. Expanded access to evening care.	61% of graduates practicing in medi- cally underserved areas and 13% work- ing in FQHCs.
Mountain Area Health Education Center — Asheville and Hendersonville, NC	Rural-based THC sponsored by a con- sortium with medical and dental training occurring in FQHCs, rural health clinics, and Tribal-affiliated health centers.	7,000 patient visits conducted by family medicine residents annually.	81% of graduates practicing in med- ically underserved areas, 57% practic- ing in the state, and 29% practicing in a rural area.
Northwest Dental Residency — Yakima, WA	Rural-based general dentistry program based at the Yakima Valley Farm Workers Clinic.	20,000 dental visits conducted by resi- dents annually. Reduced wait times for low-income patients.	64% of graduates practicing in med- ically underserved areas, 72% in the state, and 40% in FQHCs.

#### Table 5: Summary of Highlighted Teaching Health Centers

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# CHALLENGES FACING THCs AND PROPOSED SOLUTIONS

# The Current THCGME Funding Model Lacks Long-Term Financial Certainty

Since the program's establishment, the THCGME program has relied on periodic appropriations by Congress rather than being guaranteed funding as a federal entitlement program like Medicare GME. This funding uncertainty limits the future growth of THCs and threatens the financial sustainability of existing THC programs.<sup>68</sup> Permanent authorization and sustained funding would ensure that the THCGME program continues to train the workforce to meet the needs of rural and urban underserved areas. The Doctors of Community (DOC) Act introduced in 2023 would provide permanent authorization and expansion of the THCGME program.<sup>69</sup> Research suggests that the THCGME program produces a workforce that delivers cost-effective care to patients most in need, yielding up to \$238 million in Medicare savings and \$1.2 billion Medicaid savings over five years.<sup>70</sup>

## The Allotted Time Frame and Funding for THC Start-Up Are Insufficient

Starting new residency programs in rural and underserved areas is time- and resource-intensive. While large urban academic medical centers may be able to create and launch new residency programs in as little as two years, health care organizations with little prior exposure to operating GME programs can take up to five years to develop programs.<sup>71,72</sup> Financial vulnerability, accreditation challenges, and faculty recruitment make it harder for rural and underserved GME programs to launch quickly.<sup>73</sup>

Given these barriers, the two to three years of funding and technical assistance provided by current federal residency programs may be insufficient for THC development. THCPD funding could be modified to mirror Rural Residency Planning and Development funding, which includes a longer start-up time frame (three or more years) and more funding (\$750,000 versus \$500,000). Additional THCPD awards with increased funding per award and additional years of technical assistance support could be made available to develop more THCs if congressional appropriations are made beyond the one-time American Rescue Plan Act funding. Organizations may be reluctant to invest time and resources in building THC programs when there is no guarantee of future THCGME funding to support the ongoing costs of training residents.<sup>74</sup>

# State Investments in Primary Care Workforce Have Not Aligned with Health Needs

While some states have invested in primary care workforce development, in most cases, state investments remain misaligned with population health needs.<sup>75</sup> States' primary levers for investing in health workforce training are state appropriations and Medicaid payments to GME programs. Medicaid GME payments receive a federal match, which expands the reach of a state's investment in residency training. States have significant flexibility in using Medicaid GME funds to support health workforce training. Yet, most states have not utilized this flexibility to direct funding to community-based health workforce training programs or primary care specialties. In 2018, state Medicaid programs provided \$5.8 billion in graduate medical education payments, but like Medicare GME dollars, most of these funds flowed to urban teaching hospitals.<sup>76</sup>

To create alignment between their investments in health workforce training and their populations' health needs, states can use data to identify workforce needs and target funds toward needed specialties and underserved areas. Data are also needed to examine the outcomes of existing health workforce training programs and direct spending toward the most effective entities producing and retaining the workforce needed to improve population health.<sup>77</sup> Using Medicaid funding to support the start-up and ongoing support of THCs that are training physicians in high-need locations and specialties is one way to do this. New Mexico is an example of a state making changes in this direction. In 2021, the state received approval from the Centers for Medicare & Medicaid Services to provide federally qualified health centers and rural health centers with Medicaid GME funding to support community-based residency training.<sup>78</sup>

# CONCLUSION

High-quality primary care is the cornerstone of the nation's health system. To meet the population health needs of the 21st century, team-based primary care must be available to everyone. The THCGME program serves as an innovative model for ensuring that primary care workforce training aligns with population health needs, particularly for rural and underserved populations. With the THCGME program entering its second decade, opportunities abound for the federal government, states, health care organizations, and community partners to sustain and expand the program.

### Key Takeaways and Recommendations for Policymakers

The THCGME program is a targeted expansion of primary care medical and dental residency training in community-based outpatient settings that is effectively producing primary care providers who disproportionately serve underserved communities.

- 1. THCs prepare providers to offer team-based care that meets the diverse needs of rural communities, including behavioral and reproductive health services.
- 2. THCs have faced ongoing funding uncertainty. To maintain and grow this effective program, Congress should increase and sustain THCGME funding.
- 3. THC Planning and Development grants support the launch of new THC programs in resource-limited outpatient settings. However, they are funded by one-time American Rescue Plan Act funding. Future awards will require additional appropriations.
- 4. States have an opportunity to ensure that health workforce training aligns with their population's health needs by using Medicaid GME funding and state appropriations.

#### Acknowledgments

The authors would like to thank Dr. Ernest Yoder, Dennis Archambault, Dr. Bryan Hodge, Dr. Steve Crane, Dr. Steve Hulkower, Dr. Dustin Beck, Dr. Doug Nolan, Dr. Mark Koday, Dr. Michael Yurth, and Cindy Ausink for their participation in the case interviews and data collection.

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