organizational, and material. Consistent with CLER 2.0’s emphasis on the health care systems responsibility for the clinical learning environment (CLE), we wanted the items in each construct to align with: (1) existing surveys/data in use in our sponsoring institution (e.g., patient safety, employee engagement); (2) existing education-oriented surveys (e.g., ACGME); and (3) the literature. To be a short/quick tool, 2–3 items per construct (10 items total) were identified, reviewed, edited, piloted using read/think aloud, and then revised by multiple stakeholders to ensure applicability to all health care team members and an expert in research on learning environments. The survey tool tracked time to complete the survey—addressing the feasibility of quick (< 5 minutes) response time.

Outcomes: Two hundred and one CLEQSs were completed in 2019 by interprofessional team members in Cardiology, Family Medicine, Internal Medicine, OB/GYN, Radiology, GME leaders who were engaged in quality improvement initiatives in 2 hospitals or affiliated clinics (est. response rate = 70%). Respondents by role/profession: 28% residents/fellows (N = 77/201), 46% faculty members (N = 45/201); and 21% were other clinicians (N = 42/201), such as nurses, nurse midwives, speech pathologists, social workers, and lab techs. The remainders were students and other clinic/lab staff. Respondents typically completed the survey in 1.5 minutes with good reliability (Cronbach’s α = 0.83). The Cronbach alpha for each of the 4 CLE domains with the overall item ranged from 0.79 for social to 0.50 for personal. CLEQS scores varied by GME teams with GME leaders who were engaged in quality improvement initiatives as part of their Alliance of Independent Academic Medical Centers’ National Initiative VII (NI-VII) projects on Teamwork for Interprofessional Collaborative Practice, and (2) Kayla Heslin, MPH, Aurora University of Wisconsin Medical Group (AUWMG)-Aurora Health Care for her statistical support.

Acknowledgments: The authors would like to thank (1) each of the 6 Aurora Health Care GME interprofessional team leaders and members for participating in the pilot as part of their Alliance of Independent Academic Medical Centers’ National Initiative VII (NI-VII) projects on Teamwork for Interprofessional Collaborative Practice, and (2) Kayla Heslin, MPH, Aurora University of Wisconsin Medical Group (AUWMG)-Aurora Health Care for her statistical support.

Funding/Support: The authors report no external funding source for this project or other disclosures.

Other disclosures: Work was conducted as part of our participation in the Alliance of Independent Academic Medical Centers’ National Initiative VII on “Teaming for Interprofessional Collaborative Practice.”

Ethical approval: As monitoring the clinical learning environment and quality/safety interprofessional project teams is an accreditation requirement, D. Simpson’s Research Subject Protection Program determined that this type of work does not constitute human subject research.

Previous presentations: Abstract presented at the Accreditation Council for Graduate Medical Education 2021 Annual Education Conference; February 24–26, 2021; virtual.

References


Assessing Program Mission and Graduate Practice Outcomes: University of California, Davis School of Medicine Community Health Scholars

Melody Tran-Reina, MD, Michelle Ko, MD, PhD, Maya London, Alicia Gonzalez-Flores, MD, Melody Y. Hou, MD, MPH, Marjorie Westervelt, MPH, PhD, and Tonya Fancher, MD, MPH

Purpose: To meet the state’s physician workforce needs, the University of California, Davis School of Medicine (UCSDOM) developed 4 tailored pathways: Accelerated Competency-based Education in Primary Care (ACE-PC), Rural Programs in Medical Education (PRIME), Transforming Education and Community Health for Medical Students (TEACH-MS), and San Joaquin Valley PRIME, collectively known as Community Health Scholars (CHS). These programs strive to increase the number of physicians who practice primary care and/or practice in underserved rural, urban, or Central Valley communities, respectively. We aimed to evaluate program outcomes by examining the primary care specialty choice and practice location characteristics among CHS graduates from 2011 to 2020.

Approach: We created a database of 2011–2020 CHS graduate information from 4 secondary data sources: The National Provider and Plan Enumeration System (NPPES), the 2017 American Medical Association (AMA) Masterfile, state medical boards, and by conducting searches for individuals using Google.

Using the practice address listed from each data source, we categorized...
practice locations as underserved (Health Professions Shortage Area, Medically Underserved Area, Medically Underserved Population, or Federally Qualified Health Center/Community Health Center) and/or rural (Centers for Medicare and Medicaid Services [CMS] Rural Health Clinic Program eligibility, Federal Office of Rural Health Policy grant eligibility or Rural-Urban Commuting Code > 4). We identified graduates who met the mission of the CHS program from which they had graduated by their specialty and practice type. We then compared outcomes across the different data sources to assess discrepancies and if so, patterns of discrepancy between sources.

Outcomes: We found that using the NPPES alone, that the information was out of date for 36% of the graduates, based on the expected year of residency completion. We found repeated discrepancies in reported graduate practice location comparing across all sources, making measuring graduate outcomes difficult. No data source had complete information for each graduate, with 1.1% of graduates missing from NPPES, 18.6% of graduates missing from the state medical board data, 22% missing from Google, and 43.5% from the AMA Masterfile.

Of those included in the secondary data available, 60.3%–63.7% of CHS graduates practice a primary care specialty (internal medicine, family medicine, and pediatrics) depending on data source. 1.1%, 44.6%, 36.2%, and 14.7% of specialties were unknown in the NPPES, AMA Masterfile, state medical board, and Google sources, respectively. Family medicine was the most popular specialty, particularly among rural program graduates, the longest running program. Of those with training status data, program graduate training status ranged from 53.0% to 77.7% dependent on data source. Practice in an underserved location ranged from 56.5% to 62.3% of graduates dependent on data source. Practice location was missing for 1.1%, 71.8%, 26.0%, and 35.6% of graduates in the NPPES, AMA Masterfile, state medical board, and Google data sources, respectively.

Discussion: Since 2011, UCDSOM’s CHS pathways have produced physicians who practice in California’s underserved rural, urban, and Central Valley communities. The growing needs of the California health workforce require further investment in the development, funding, and expansion of similar programs. However, tracking graduate specialty and practice outcomes is challenging due to discrepancies among secondary data sources.

As we develop new programs to address physician shortages, we need a robust system to follow graduates and accurately measure program success. Our findings suggest that schools may need to develop graduate tracking processes and systems as a first step rather than use secondary data. Our next steps include contacting program graduates directly by phone and email to obtain practice and specialty information and assessment of secondary sources.

Significance: Many programs use secondary data sources to track and report on their graduate outcomes, but our study finds discrepancies across these data sources. Current estimates of physician supply in underserved areas nationally may be inaccurate given potential lack of reliability in secondary data sources.

Correspondence should be addressed to Melody Tran-Reina, University of California, Davis, 4610 X St., Suite 4202A, Sacramento, CA 95817; email: mltran@ucdavis.edu.


Funding/Support: The Center for a Diverse Healthcare Workforce is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) as part of an award totaling $3,791,026 with 0% financed with nongovernmental sources. The contents are those of the author(s) and do not necessarily represent the official views of, nor an endorsement, by HRSA, HHS, or the U.S. Government. For more information, please visit HRSA.gov.

Other disclosures: None reported.

Ethical approval: Reported as not applicable.

Previous presentations: Poster presented at Scholarship of Teaching and Learning Conference, Davis, California; December 2020; and at Association of American Medical Colleges Group on Diversity and Inclusion and Health Workforce Research Joint Conference; May 2021; virtual.

**Leadership Education to Advance Diversity–African, Black and Caribbean (LEAD-ABC): A Mission-Based Model Approach to Addressing Racial Diversity and Inclusive Excellence in Medicine**

Carol Major, MD, Candice Taylor Lucas, MD, Kaosoluchi Enendu, MD, Julie Youm, PhD, Ursula Worsham, EdD, and Khanh-Van Le-Bucklin, MD, MEd

**Purpose:** The COVID-19 pandemic highlighted the socioeconomic and health disparities that continue to impact our underserved communities. One way that academic medicine can contribute to improving health equity is to address racial diversity within medicine. A case in point is the staggering fact that only 5% of physicians in the United States are Black, while Black people represent more than 13% of the U.S. population.1

In October 2020, the Association of American Medical Colleges (AAMC) released a framework for Addressing and Eliminating Racism at the AAMC, in Academic Medicine, and Beyond2 that outlined 4 pillars of work to guide their efforts to address the damaging effects of cultural racism impacting our nation. The third pillar centers on our work as part of the academic medicine community, including a need to identify promising systems-based solutions that achieve equitable enrollment and support for learners to thrive.

**Approach/Methods:** The University of California, Irvine School of Medicine (UCISOM) has been committed to systems-based solutions for over 15 years through its mission-based program model that focuses on areas of health care for which a specific need has been identified. The first of such programs was the UCISOM Program in Medical Education for the Latino Community (PRIME-LC) to address the needs of underserved Latino communities. PRIME-LC has demonstrated a consistent track record of graduating physician leaders who serve Latino communities in California and beyond. Following the success of this model, Leadership Education to Advance Diversity–African, Black and Caribbean (LEAD-ABC) was established in 2019 as a mission-based program aimed at