



**U.S. Department of Health and Human Services
Health Resources and Services Administration**

REPORT TO CONGRESS

**PREVENTIVE MEDICINE AND PUBLIC HEALTH
TRAINING GRANT PROGRAM**

Fiscal Year 2021

Executive Summary

This is the Fiscal Year (FY) 2021 Report to Congress on the Preventive Medicine and Public Health Training Grant Program administered by the Health Resources and Services Administration (HRSA). This report to Congress is required by section 768(d) of the Public Health Service Act, which states:

“The Secretary shall submit to the Congress an annual report on the program carried out under this section.”

This report provides a description of activities and funding levels for the Preventive Medicine and Public Health Training Grant Programs, specifically for HRSA’s Preventive Medicine Residency (PMR) Program. The goal of the program is to increase the number of preventive medicine physicians trained in preventive medicine specialties who can lead public health activities, including the integration of public health with primary care, management of response to disasters, and outbreak investigation. The PMR Program was competed in FY 2018 and awarded funding to 17 qualifying grant recipients, with 5-year project periods. In FY 2021, the PMR Program received \$7,299,742 in annual appropriations. HRSA awarded continuation funding to 17 PMR Program grant recipients for a total of \$6,647,012 in FY 2021. The reporting period for this report is Academic Year 2020 to 2021.

The Coronavirus Disease 2019 (COVID-19) pandemic created unique learning opportunities for residents while they addressed the health care needs of underserved communities. All of the 81 residents financially supported by the program received COVID-19 related training in response to the COVID-19 pandemic.



Fiscal Year 2021 Report on the Preventive Medicine and Public Health Training Grant Program

Table of Contents

Executive Summary	i
Table of Contents	ii
List of Tables	iii
Acronym List	iii
I. Legislative Language	4
II. Introduction	4
Preventive Medicine Specialties	4
III. Overview	6
IV. FY 2021 Preventive Medicine Residency Program	6
FY 2021 HRSA Activities to Support Public Health and Preventive Medicine.....	8
V. Selected Program Highlights	8
COVID-19 Surveillance and Prevention.....	9
Highlights from HRSA-funded Preventive Medicine Residency Programs.....	10
VI. Summary and Conclusions	22

List of Tables

Table 1 - FY 2021 Preventive Medicine Residency Program Awards 7

Acronym List

ABMS	American Board of Medical Specialties
ACGME	Accreditation Council for Graduate Medical Education
AY	Academic Year
CDC	Centers for Disease Control and Prevention
COVID-19	Coronavirus Disease 2019
FY	Fiscal Year
GME	Graduate Medical Education
HIV	Human Immunodeficiency Virus
HRSA	Health Resources and Services Administration
IM/PM	Internal Medicine/Preventive Medicine
MAT	Medication-Assisted Treatment
MUC	Medically Underserved Community
ODU	Opioid Use Disorder
PGY	Postgraduate year (also known as residency) ¹
PH/GPM	Public Health and General Preventive Medicine
PHS Act	Public Health Service Act
PMR	(HRSA's) Preventive Medicine Residency Program
PRAPARE	Protocol for Responding to and Assessing Patients' Assets, Risks, and Experiences
SDOH	Social Determinants of Health
SUD	Substance Use Disorder
UCLA	University of California, Los Angeles
UCSD	University of California, San Diego
UCSF	The Regents of the University of California, San Francisco
VA	Department of Veterans Affairs

¹ PGY-1 is the first year of graduate training after completion of the formal 4 years of medical school. Similarly, PGY-2 and PGY-3 are the abbreviations for postgraduate years 2 and 3. Residents typically begin the 2-year Public Health and General Preventive Medicine in PGY-2, after at least 1 year of direct clinical training.

I. Legislative Language

This is the Fiscal Year (FY) 2021 Report to Congress on the Preventive Medicine and Public Health Training Grant Programs administered by the Health Resources and Services Administration (HRSA). This program is authorized by section 768 of the Public Health Service (PHS) Act (42 U.S.C. § 295c).

The PHS Act requires this report in section 768(d):

“The Secretary shall submit to the Congress an annual report on the program carried out under this section.”

II. Introduction

HRSA is committed to reducing health disparities by increasing access to quality services and promoting a skilled health professions workforce. One mechanism for achieving increased access is through supporting innovative programs that increase the number and skills of physicians graduating from preventive medicine and public health programs. HRSA provides training to graduate medical residents in preventive medicine specialties. Through these programs, participants are prepared to advance public health research, address emerging public health issues, and assume leadership roles within the public health system.

Preventive Medicine Specialties

Preventive medicine is one of the 40 specialties recognized by the American Board of Medical Specialties (ABMS).² Preventive medicine physicians are educated in both clinical medicine and public health. Preventive medicine training includes direct patient care, biostatistics, epidemiology, social and behavioral sciences, health services administration, environmental health sciences, and practicing prevention in clinical medicine. The fundamental competencies of preventive medicine align with the recently updated *Ten Essential Public Health Services* framework.³ The ABMS and Accreditation Council for Graduate Medical Education (ACGME) recognize three specialty areas under the “preventive medicine” rubric: public health and general preventive medicine (PH/GPM), aerospace medicine, and occupational medicine.⁴ Below are descriptions of each specialty area.

- PH/GPM focuses on promoting health, preventing disease, and managing the health of communities and defined populations. PH/GPM physicians combine population-based public health skills with knowledge of primary, secondary, and tertiary prevention-oriented

² American Board of Medical Specialties (ABMS). (n.d.). About ABMS. Retrieved January 10, 2020, from <https://www.abms.org/member-boards/>.

³ de Beaumont. (2020). *10 Essential Public Health Services*. Retrieved February 8, 2021, from <https://debeaumont.org/10-essential-services/>.

⁴ Accreditation Council on Graduate Medical Education (ACGME). (2019, July). ACGME Program Requirements for Graduate Medical Education in Preventive Medicine, pgs. 3-4. Retrieved March 30, 2020, from https://www.acgme.org/Portals/0/PFAssets/ProgramRequirements/380-Preventive_Medicine_2019.pdf?ver=2018-08-21-130637-697.

clinical practice. PH/GPM physicians investigate disease outbreaks, assess the medical needs of individuals and populations, and counsel patients for health promotion. They also provide education on behavioral changes to implement community-based programs to reduce risk factors for disease and better manage chronic conditions. Additionally, PH/GPM physicians conduct policy analyses to improve population health; complete research to inform health policy; design and operate surveillance systems; and promote clinical preventive medicine for individuals and populations by following guidelines such as immunizations, screening tests, and preventive medications. Preventive medicine physicians and residents engage globally and with public, private, and academic public health and health care organizations in surveillance, research, and prevention of emerging health threats.⁵

- Aerospace medicine focuses on the clinical care, research, and operational support of the health, safety, and performance of crewmembers and passengers of air and space vehicles and the support personnel who assist with the operation of these vehicles. Through ongoing assessment of the aerospace workforce, aerospace medicine physicians develop scientific evidence that guides health care, assures the safety of passengers, and assesses the conditions under which it is safe to operate vehicles.⁶
- Occupational medicine focuses on the health of workers and their ability to perform work. The focus includes the physical, chemical, biological, and social environments of the workplace and the health outcomes of environmental exposures. These residency programs work closely with the Centers for Disease Control and Prevention's (CDC) National Institute for Occupational Safety and Health and serve as resources for the primary health care personnel who care for agricultural workers and assess and mitigate the health effects of workplace hazards. Residents identify factors present in the workplace affecting health and take steps to ameliorate, prevent, and address the effects of such factors.⁷

Effective July 1, 2020, the ACGME became the sole accrediting entity for both osteopathic and allopathic graduate medical education (GME).⁸ This change streamlined the accreditation process and enabled consistency in outcomes between osteopathic and allopathic medicine.

Preventive medicine training requirements include at least 1 year of clinical residency training in an ACGME-accredited program⁹ followed by 2 years of competency-based education, academic and practicum-based training, and the completion of a Master of Public Health or other comparable postgraduate degree. During their preventive medicine specialty training, residents

⁵ Ibid.

⁶ Ibid.

⁷ Ibid.

⁸ Accreditation Council on Graduate Medical Education (ACGME). (2019). Benefits of Single GME. Retrieved May 21, 2021, from <https://acgme.org/What-We-Do/Accreditation/Single-GME-Accreditation-System/Benefits-of-Single-GME/>.

⁹ Accreditation Council for Graduate Medical Education. (2020). ACGME Program Requirements for Graduate Medical Education in Preventive Medicine. Pgs. 16 and 64. Retrieved from https://www.acgme.org/Portals/0/PFAssets/ProgramRequirements/380_PreventiveMedicine_2020.pdf?ver=2020-06-30-144631-400.

train in hospitals, managed care organizations, health departments, industry, federal government, non-governmental organizations, and community-based organizations, including health centers.

Residents often combine their preventive medicine residency training with another specialty, such as family medicine, internal medicine, or pediatrics. These programs are completed either sequentially or integrated as a combined training program.

Because most preventive medicine residency activities occur outside hospital settings, preventive medicine residencies are not directly eligible for GME funding through the Centers for Medicare & Medicaid Services. Therefore, funding for preventive medicine residents and programs is limited, which creates challenges for programs.¹⁰ HRSA, as authorized by section 768 of the PHS Act, is the largest single source of federal support specifically for preventive medicine residency programs.¹¹ ABMS reported 218 physicians as newly certified in preventive medicine specialties in 2020: 96 physicians in the PH/GPM specialty, 87 physicians in the occupational medicine specialty, and 35 physicians in the aerospace medicine specialty.¹² Residency directors reported program curriculum enhancements, new rotations, and the number of residents enrolled and graduated would not occur without HRSA funding.

III. Overview

This report describes the funding levels and selected highlights of the Preventive Medicine Residency (PMR) Program.

The goal of HRSA's PMR Program, which has a 5-year project period, is to increase the number of preventive medicine physicians trained in preventive medicine specialties. These physicians have the capacity to lead public health activities, including the integration of public health with primary care, leadership in management of response to disasters, and outbreak investigations. The PMR Program supports this goal through awards to accredited schools of public health, medicine, or osteopathic medicine; accredited public or private nonprofit hospitals; state, local, or tribal health departments; and consortiums of two or more of these entities that plan and develop new residency training programs or expand current programs in the specialty of preventive medicine. In FY 2021, HRSA awarded continuation funding to 17 PMR Program grant recipients.

IV. FY 2021 Preventive Medicine Residency Program

The PMR Program supports GME and training for preventive medicine residents to defray the costs of living expenses, tuition, and fees. Grant recipients use the grant funds to plan, develop, and implement preventive medicine curricula; operate or participate in an accredited residency program in preventive medicine; establish and maintain academic administrative units in preventive medicine; and improve clinical teaching in preventive medicine. The PMR Program

¹⁰ Jung P, Lushniak B. Financing Preventive Medicine Graduate Medical Education. *J Public Health Manag Pract.* 2021 May/Jun; 27 Suppl 3, HRSA Investment in Public Health: S206-S210. [in press].

¹¹ Ibid.

¹² American Board of Medical Specialties. (2020). ABMS Board Certification Report 2020-2021, pg. 34. Retrieved February 22, 2022, from <https://www.abms.org/wp-content/uploads/2022/01/ABMS-Board-Certification-Report-2020-2021.pdf>.

funds also provide stipends and travel support for residents who present their research findings at national academic meetings. A portion of the funds provides support for faculty and staff who are directing programs, developing curricula, teaching, and coordinating program activities, including clinical rotations and public health experiences.

HRSA held a new competition for the PMR Program in FY 2018 with a 5-year project period, yielding 17 new awards. In FY 2021, the PMR Program received \$7,299,742 in annual appropriations. Table 1 provides a summary of FY 2021 awards.

Table 1 - FY 2021 Preventive Medicine Residency Program Awards

	State	Awardee	Award (FY 2021)	Discipline
1	California	University of California, Los Angeles	\$399,929	PH/GPM
2	California	California Department of Public Health	\$386,791	PH/GPM
3	California	University of California, San Diego	\$399,658	PH/GPM
4	California	The Regents of the University of California, San Francisco	\$400,000	Occupational Medicine
5	Colorado	The Regents of the University of Colorado	\$399,999	PH/GPM
6	Connecticut	The Griffin Hospital, Inc.	\$399,999	PH/GPM
7	Georgia	Emory University	\$386,996	PH/GPM
8	Georgia	The Morehouse School of Medicine, Inc.	\$400,000	PH/GPM
9	Maine	Maine Medical Center	\$398,379	PH/GPM
10	Michigan	Regents of the University of Michigan	\$349,719	PH/GPM
11	Mississippi	University of Mississippi Medical Center	\$374,941	PH/GPM
12	New Jersey	The State University of New Jersey, Rutgers	\$361,630	PH/GPM
13	New Mexico	University of New Mexico	\$399,984	PH/GPM
14	New York	The Research Foundation for the State University of New York, Stony Brook	\$400,000	PH/GPM
15	North Carolina	University of North Carolina at Chapel Hill	\$397,027	PH/GPM
16	Pennsylvania	The Trustees of the University of Pennsylvania	\$398,773	Occupational Medicine
17	West Virginia	West Virginia University Research Corporation	\$393,187	PH/GPM and Occupational Medicine
	Total		\$6,647,012	

FY 2021 HRSA Activities to Support Public Health and Preventive Medicine

HRSA's Bureau of Health Workforce hosted a Public Health Stakeholder Meeting on December 2, 2021, to discuss public health challenges and to seek individual views on potential strategies, initiatives, and action steps to strengthen the public health workforce. Representatives from 31 public health organizations attended, including medical societies, government entities, health care nonprofit organizations, and universities. Key areas of discussion included:

- health care workforce attrition and labor gaps;
- the status of local public health departments across the country;
- suggestions to support the current workforce; and
- public health workforce diversity and health equity.

The speakers presented updates on funding for public health training, maternal and child health workforce development, national public health workforce needs, and public health workforce initiatives to provide background for the discussion. General discussion topics included factors affecting the public health workforce, placement of public health professionals in areas of need, measures of success in public health training programs, and HRSA's role in public health workforce development.

HRSA also sponsored a supplement of the *Journal of Public Health Management and Practice* published May/June 2021 entitled, "*HRSA's Investment in Preventive Medicine.*" The editorial reports, "[t]he medical specialty of preventive medicine is unique for a number of reasons – it is the only medical specialty that requires training in both direct patient care and population health, it is the only specialty for which Congress has appropriated a specific line of funding for residency training, and it is one of the smallest and least recognized specialties within modern medicine."¹³ The editorial informs readers that the specialty of preventive medicine has received congressional appropriations since 1983 and trains preventive medicine specialists to address complex population health needs. The essential roles and activities performed by PH/GPM and occupational medicine residents during the Coronavirus Disease 2019 (COVID-19) pandemic underscore the importance of the preventive medicine residency specialty and its necessary role in helping to ensure the health of the nation.¹⁴

V. Selected Program Highlights

In Academic Year (AY) 2020 to 2021, PMR Program grant recipients continued to provide assistance and learning experiences in state and local health departments and to address current public health issues. Each program focused on meeting the needs of underserved populations. In addition, all programs required their residents to have both academic and practicum experience.

¹³ Jung, P., Russell, S. (2021). HRSA's Investment in Preventive Medicine. *J Public Health Manag Practice*. 2021: 27(3): S113-S115. doi: 10.1097/PHH.0000000000001291.

¹⁴ Miller, L. (2021). The SARS-CoV-2 Pandemic: Real-Time Training and Service for Preventive Medicine Residents. *J Public Health Manag Practice*. 2021: 27(3): S123-S128. doi: 10.1097/PHH.0000000000001304.

This includes experiences focused on the proposed Healthy People 2030 Objectives, clinical preventive services, and clinical and population health practice.¹⁵ In an effort to address the needs of vulnerable and diverse populations, these awardees focused on training in prevention and public health that contributed to HRSA's goals of improving access to quality services, building healthy communities, and reducing health disparities. The COVID-19 pandemic created unique learning opportunities for residents while they addressed the health care needs of underserved communities. Additionally, the public health crises of opioid use disorders (OUDs) and substance use disorders (SUDs) continued to be of growing concern during the pandemic.

In AY 2020 to 2021, the PMR Program provided financial support to 81 residents, the majority of whom received clinical or experiential training in a primary care setting (80 percent) and/or a medically underserved community (MUC) (69 percent). Seventy-four percent received training in telehealth, and 56 percent of residents received training in SUD treatment. Furthermore, 100 percent of residents received COVID-19-related training and 69 percent received training in health equity/social determinants of health (SDOH). Of the 58 residents who completed their residency training programs during AY 2020 to 2021, 35 percent intended to become employed in public health/prevention settings, 31 percent intended to pursue employment or further training in primary care settings, and 22 percent intended to pursue employment or further training in MUCs. PMR awardees provided 1-year follow-up data on 45 program graduates from AY 2019 to 2020. Of the 45 program graduates, 36 percent were currently employed in or pursuing further training in MUCs, 36 percent were employed in public health/prevention settings, and 24 percent were currently employed in or pursuing further training in primary care settings.

PMR grant recipients partnered with 162 sites (e.g., academic institutions, ambulatory care sites, state and local health departments, and hospitals) to provide 492 clinical training experiences for PMR residents. Forty-one percent of these training sites were located in MUCs and 35 percent were primary care settings. In addition, 34 percent offered telehealth services, 30 percent offered substance use treatment, and 28 percent offered integrated behavioral health services in a primary care setting.

COVID-19 Surveillance and Prevention

The U.S. Department of Health and Human Services declared the COVID-19 pandemic a public health emergency on January 31, 2020.¹⁶ As of June 8, 2022, the COVID-19 virus has claimed over one million lives in the United States.¹⁷ HRSA's PMR Program grantees have approached these unprecedented times by contributing to COVID-19 response efforts through use of their unique knowledge and skills. During FY 2021, the 81 HRSA-funded PMR residents (100 percent) participated in the following COVID-19 response activities: COVID-19 screening, testing, and contact tracing; surveillance; data analysis; incident command; provider support; reopening of health care organizations and facilities; direct patient care; and education and risk communication.

¹⁵ Information about the proposed Healthy People 2030 Objectives is available here:

<https://www.healthypeople.gov/2020/About-Healthy-People/Development-Healthy-People-2030>.

¹⁶ Department of Health and Human Services. (2020). Secretary Azar Declares Public Health Emergency for the United States for 2019 Novel Coronavirus. Retrieved on February 8, 2021, from <https://www.hhs.gov/about/news/2020/01/31/secretary-azar-declares-public-health-emergency-us-2019-novel-coronavirus.html>.

¹⁷ Centers of Disease Control and Prevention. (2022). COVID Data Tracker. Retrieved June 8, 2022, from <https://covid.cdc.gov/covid-data-tracker/#datatracker-home>.

These response activities took place in multiple settings, such as state and local health agencies, hospital systems, long-term care facilities, academic centers, local businesses, labor unions, health centers, homeless shelters, and clinics. Some of the residents had direct responsibility for providing primary and specialty care services in inpatient settings and were involved in expanding telehealth usage, as well as the capacity for using virtual platforms. Several residents served at leadership levels in the response by serving as part of incident command structures, developing programs and policies, and designing new clinical and educational programs to address the pandemic. Preventive medicine physicians and residents continue to provide leadership during the current COVID-19 pandemic.¹⁸

Highlights from HRSA-funded Preventive Medicine Residency Programs

Below are the programmatic highlights of the PMR grant recipients. All provided information on activities related to COVID-19, health equity and diversity, and SUD/ODU; however, many did not provide activities related to telehealth.

CALIFORNIA

The University of California, Los Angeles

COVID-19 Response Activities: Residents participated in incident command responses at the Los Angeles County Department of Public Health and within the University of California, Los Angeles (UCLA) Health System. Residents partnered with the Los Angeles County Department of Public Health to conduct epidemiologic studies in skilled nursing facilities and households. They also performed case surveillance and epidemiologic evaluation of multisystem inflammatory syndrome in children and on pregnant women and infants and developed and delivered community town hall meetings to discuss COVID-19 vaccines and vaccine-preventable illness for requesting schools. The UCLA Health System also received resident support and provided technical support for the campus and hospital cases related to COVID-19 exposures and in the development of a medical staff mental health and wellness outreach program within UCLA's hospital system. Additionally, residents provided medical care to unaccompanied migrant children at the Long Beach Convention Center, participated in county-level vaccine clinics, reviewed COVID-19 policies, and provided advice on infection prevention methods within group foster homes.

Health Equity and Diversity Activities: Residents participated in the homeless veterans' street medicine program, providing daily medical exams and resource information to homeless patients. PMR residents delivered services to underserved populations at the Department of Health Services clinic in the High Desert region of Los Angeles, providing primary care to patients and completing community-based projects, such as the development of mental health resource lists and nutrition programs. Residents also provided lifestyle medicine consultations through the program's Lifestyle Medicine Clinic to those with increased cardiovascular risks.

¹⁸ Miller, Lisa, MD. The SARS-COV-2 Pandemic: Real-Time Training and Service for Preventive Medicine Residents. *Journal of Public Health Management and Practice Supplement*. HRSA's Investment in Public Health. 2021, Feb 16. Retrieved on February 25, 2021, from <https://pubmed.ncbi.nlm.nih.gov/33605672/>.

Substance Use Disorders/Opioid Use Disorders Activities: The Internal Medicine/Preventive Medicine (IM/PM) combined program remains an active member of the UCLA Addiction Medicine Consortium, which works to improve trainees' ability to practice primary and secondary prevention and management of OUD in adolescents and adults living in MUCs.

California Department of Public Health

COVID-19 Activities: Residents continued to support COVID-19 response efforts. Examples of this support include: reporting COVID-19 test results; developing and implementing school COVID-19 vaccination protocols for children ages 5-11 and over 12 years old; holding weekly meetings with community health workers and nurse practitioners to provide education on ways to address vaccine hesitancy and sharing policy changes as needed; and incorporating COVID-19 vaccination, boosters, and transmission prevention education during primary care visits.

Health Equity and Diversity Activities: Residents addressed health equity and diversity by collecting and de-identifying data from the agency's open data portal and provided Medi-Cal, California's Medicaid health care program, with reports highlighting differences between health outcomes based on race/ethnicity, income, and rural location. In Los Angeles County, residents established resources to increase food accessibility for people living in food deserts; presented at youth tobacco control coalition meetings whose aim is to ban tobacco product use in downtown South Pasadena; and surveyed California Diabetes Prevention Program providers regarding program entry barriers for those with health disparities. Residents also provided care at the Los Angeles school health clinic to students and families without other sources of health care, including vaccinations, physical exams, and anticipatory guidance. Residents benefited from classes and seminars about health equity that they incorporated into their public health and clinical practice work.

Substance Use Disorders/Opioid Use Disorders Activities: Residents provided SUD, OUD, and mental health treatment to students and families without other sources of health care at the Los Angeles school health clinic. They also participated in an addiction medicine rotation at Kaiser Permanente; provided care and created follow-up care plans for individuals with SUDs transitioning from a correctional setting into rural areas; and attended classes and seminars on SUDs and how it affects public health.

University of California, San Diego

COVID-19 Activities: Residents contributed to the San Diego County Public Health Department's COVID-19 pandemic response, serving as essential auxiliary public health staff, and filled leadership roles. Residents served as lead physicians for a COVID-19 Hotel Task Force and Isolation Operation, principal investigator of a COVID-19 outbreak in a nursing care facility in June/July 2020, and operational lead for the rollout of San Diego County's California SARS-CoV-2 and Respiratory Virus Sentinel Surveillance. The COVID-19 Hotel Task Force and Isolation Operation is an initiative to partner with local health departments to identify estimates of community transmission and trends, and to characterize demographic, clinical, and exposure data over time throughout California. Residents also led and managed the Nurse Triage Line for the County Health Department's Disaster Preparedness Branch, performed contact tracing for the University of California, San Diego (UCSD) Student Health Services, and participated in mass vaccination efforts. Residents served as lead investigators for a study focusing on COVID-19

exposures and infections among health care personnel for the UCSD Occupational Medicine Department and facilitated screenings for COVID-19 within shelters for asylum seekers.

Health Equity and Diversity Activities: The UCSD/San Diego State University General Preventive Medicine program continues to make strides in supporting health equity and diversity through recruitment and training of diverse residents and providing clinical and preventive medicine care at clinics and public health sites serving diverse populations.

Substance Use Disorders/Opioid Use Disorders Activities: In parallel with the rising overdose epidemic, the UCSD/San Diego State University residency program continued to offer and build on a robust training track in addiction medicine, which provides rotations at clinics providing medication-assisted treatment (MAT) to patients suffering from a variety of addiction disorders. Program residents completed quality improvement projects focused on optimizing procedures for the administration of medication for the treatment of OUD to prevent relapses and completed a study on the effects of adverse childhood experiences on the development of addiction to opioids and other drugs as adults. Residents also participated in the San Diego County Opioid Initiative Project designed to identify exposures and prior comorbidities that predispose individuals to SUDs.

The Regents of the University of California, San Francisco

COVID-19 Response Activities: Residents continued to receive COVID-19 experiential learning and served as occupational medicine physicians within multidisciplinary teams. Residents provided direct clinical coverage in the occupational health service department at Zuckerberg San Francisco General Hospital and the Department of Veterans Affairs (VA) Medical Centers affiliated with The Regents of the University of California, San Francisco (UCSF). They triaged and responded to night and weekend calls to the UCSF employee hotline on COVID-19 exposures and positive test results. They also collaborated with the UCSF leadership team in work-related case classification for COVID-19 positive UCSF employees and other activities across a range of rotation sites.

Health Equity and Diversity Activities: Residents received innovative programmatic content experiences relevant to health disparities in occupational and environmental medicine. Elective rotations for residents include University of California, Berkeley Labor Occupational Health Program, where residents trained in outreach to at-risk workers, and the Natural Resources Defense Council, where residents trained with an emphasis on at-risk communities and environmental justice. Residents completed targeted University of California, Berkeley School of Public Health coursework addressing global disparities in occupational health and participated in seminars on occupational and environmental health.

Substance Use Disorders/Opioid Use Disorders Activities: Residents participated in clinical rotations with San Francisco's VA Health Care System. This experience exposes residents to vulnerable veteran populations with drug and alcohol dependence (including opiates), homelessness, and low-wage work.

COLORADO

The Regents of the University of Colorado

COVID-19 Response Activities: At the state health department, residents evaluated the state’s COVID-19 Wastewater Surveillance, contributed to writing Colorado’s Health Alert Notifications on COVID-19, provided recommendations on 4-year educational institutions’ reopening plans, presented COVID-19 science updates weekly, and summarized data on global COVID-19 control from other countries to the Governor’s office. Residents also contributed to increased use of monoclonal antibody treatment within low-use clinical sites, served as state health department vaccine subject matter experts, investigated and reported on cases of multisystem inflammatory syndrome in children in Colorado, and participated in campaigns for vaccine equity. At the local health department level, residents provided COVID-19 vaccinations, developed manuscripts summarizing ethnic disparities in COVID-19 vaccination efforts in Jefferson County, assisted with COVID-19 contact tracing, and set up COVID-19 vaccination clinics within casinos. Residents assisted with creating an informational video with the goal of reducing pediatric COVID-19 vaccination fears. As part of the VA Medical Center’s Environmental and Occupational Health Team, residents performed contact tracing, surveillance, outbreak investigation, and return-to-work evaluations for employees, in addition to providing families with vaccine safety and efficacy information during the Children’s Hospital of Colorado’s vaccination event.

Health Equity and Diversity Activities: Residents completed online health equity modules and participated in interactive cultural competency workshops. The PMR Program Director partnered with the Denver Prevention Training Center to host a series on “Anti-racism in Clinical Care.” Participating program residents gained knowledge, awareness, and strategies on individual and system-level factors that negatively affected certain populations.

Substance Use Disorders/Opioid Use Disorders Activities: Residents received experiential training in SUD and OUD prevention and treatment while providing clinical care at the Addiction, Research, and Treatment Services Clinic. While rotating at The Steadman Group, a health care consulting firm, residents provided behavioral health consulting as well as reviewed Medicaid data to evaluate mental health and SUD prevalence, the average cost per claim, and co-occurring mental health and SUD claims.

CONNECTICUT

The Griffin Hospital, Inc.

COVID-19 Activities: Residents provided COVID-19 response support to the New Haven Health Department. One resident led COVID-19 surveys and discussions among providers and clinic directors in New Haven County who treat patients with human immunodeficiency virus (HIV) and created protocols and patient visit workflows for patients with new HIV diagnoses amidst the COVID-19 pandemic. Residents supported Griffin Hospital’s patient capacity surge by assessing, treating, and discharging patients with COVID-19 concerns from the hospital’s extended emergency department. This allowed the hospital to efficiently manage the high patient volume and ensure safe care for patients awaiting hospital admissions and discharge from the emergency department. Residents in the combined IM/PM track and preventive medicine residents provided care in primary care and internal medicine settings while serving as wellness educators on vaccinations, cancer, and screenings for other chronic diseases.

Health Equity and Diversity Activities: Residents provided preventive care to diverse populations by reviewing medical charts and identifying individuals with low adherence to preventive

services, specifically colorectal cancer screenings. Once identified, residents conducted outreach and home visits to each patient to increase patient adherence to preventive services. Residents developed home visit protocols, performed home visits, and provided resources to identify and address the SDOH facing the community.

Substance Use Disorders/Opioid Use Disorders Activities: Residents completed three addiction medicine rotations and participated in addiction medicine didactic sessions, alongside program medical students, physician assistant students, and program faculty. Residents received MAT training. Residents in the IM/PM track managed patients with SUD/OD in the inpatient setting and along with the second-year preventive medicine residents, managed patients receiving MAT at the program's Residency Continuity Care Clinics in Oxford and Ansonia.

Telehealth Activities: The Griffin Hospital, Inc. residents trained on the Hale telemedicine platform. As the need arose, the hospital incorporated virtual telemedicine visits in the primary care settings with specific time slots. This minimized resident and staff exposure to symptomatic COVID-19 patients while still allowing them in-person visits for other general check-ups and resuming continuity of care.

GEORGIA

Emory University

COVID-19 Activities: Residents continued to serve in multiple roles during the COVID-19 pandemic. Residents served as members of the local health department incident command/leadership team and co-led the creation of the first after-action review related to the DeKalb County Board of Health's response to COVID-19 testing and vaccine administration. Residents engaged in various COVID-19 response activities, such as performing comprehensive evaluations and assessments, providing care via mobile health units, developing presentations to key stakeholders, providing direct patient care within the Student Health Services COVID-19 Clinic, and assisting with quality improvement projects on COVID-19 breakthrough infections. The residents also supported the Atlanta VA Health Care System Infectious Disease Clinic by providing information on COVID-19 prevention and early treatment to patients with mild to moderate COVID-19 infections. The residents analyzed data on COVID-19 vaccination rates from December 2020 to August 2021 among clinic patients with HIV infection compared with the total Atlanta VA population in the state of Georgia.

Health Equity and Diversity Activities: Residents participated in the Emory School of Medicine's Health Equity, Advocacy, and Policy track. During this training experience, preventive medicine residents administered surveys on adverse childhood experiences across the Grady Primary Care Clinic to help assess use of health services within the hospital and systematically reviewed trauma-informed care interventions within specific populations, such as correctional settings. In addition, residents participated in quality improvement projects developing tools to assist low literacy patients within the Grady Hospital Diabetes Center and participated in the "Age-Friendly" initiative to improve care for older patients within Atlanta's VA Home-Based Primary Care Program. Residents also contributed to projects focused on the use of telehealth to provide health care to seniors, quality improvement of stroke patient care, and investigated an outbreak of a Carbapenem-resistant *Acinetobacter baumannii* within a ventilator-capable skilled nursing home.

Substance Use Disorders/Opioid Use Disorders Activities: Residents provided MAT to patients at the Grady Medication-Assisted Opioid Treatment Clinic, assessed the clinic workflow at the Grady Memorial Hospital Ponce Center PrEP (pre-exposure Prophylaxis) Clinic, and conducted an opioid quality improvement audit within Atlanta’s VA Home-Based Primary Care Program.

Telehealth Activities: An Emory University resident researched how other health systems and organizations are supporting seniors to increase the adoption of telehealth. The resident’s supervisor characterized this work as “a significant advancement in our telehealth” for senior projects, including research on broadband internet access as a SDOH.

The Morehouse School of Medicine, Inc.

COVID-19 Response Activities: Residents assisted the Georgia Department of Public Health in Fulton County with investigating COVID-19 outbreaks among the populations experiencing homelessness. Residents also supported the Fulton County Department of Health’s ability to control outbreaks among homeless populations and improve methods for surveillance of COVID-19 by detecting cases quickly during the pandemic.

Health Equity and Diversity Activities: The Morehouse School of Medicine’s Preventive Medicine Program continues to recruit and train ethnically diverse residents. Residents have didactic, practicum, and clinical experiences that emphasize and address the social, economic, and policy determinants of health. The program created a unique residency training with experiences in social, cultural, and behavioral longitudinal rotations in community- or faith-based organizations for all program residents.

Substance Use Disorders/Opioid Use Disorders Activities: Residents authored and published an article, “Availability of Naloxone in 2 Underserved Urban Communities in Georgia,” that provides information on the availability of naloxone in pharmacies located in communities where residents participated in societal, cultural, and behavioral longitudinal practicum rotations.¹⁹ *The Journal of Public Health Management and Practice* published the article in the May/June 2021 issue. During the National Preventive Medicine 2021 Conference, residents shared their research findings on premature mortality due to unintentional injuries caused by opioid overdoses. Residents were engaged in educational activities to increase their competencies in mental health and emotional wellbeing.

MAINE

Maine Medical Center

COVID-19 Response Activities: Residents received training in emergency preparedness and response to the ongoing COVID-19 pandemic. In addition, residents created patient education videos on COVID-19 prevention, protocols, and vaccination. The organization translated each video into four to six languages to ensure the recorded information reaches many communities within Maine and its surrounding areas.

¹⁹ Saraiya P, Hutchins SS, Crump S, Morgan J, Wilkinson T, Walker CD, Taylor B. Availability of Naloxone in 2 Underserved Urban Communities in Georgia. *Journal of Public Health Management and Practice*. 2021 May-Jun 01; 27(Suppl 3): S179-S185. doi: 10.1097/PHH.0000000000001325. PMID: 33785693.

Health Equity and Diversity Activities: Program residents collaborated with community-based organizations to identify barriers to health care faced by the immigrant community. Residents continue to collaborate with the Preventive Medicine Enhancement for Maine Program at Maine Medical Center and the Maine Access Immigrant Network to offer an “Ask the Doc” series. This informational series fills the gap in available services by bringing physicians to underserved populations with limited health care access to provide health information. Residents developed vaccine information sessions for health care providers, medical staff, and community members in several languages; created a medical director’s training handbook for managing vaccination clinics; and served as consultants for social service organizations serving people experiencing homelessness. Residents provided patient care in partnership with social service providers and collaborated in community vaccine distribution efforts.

Substance Use Disorders/Opioid Use Disorders Activities: Screening for SUD continues to be a priority for Maine Medical Center. Within the past 2 years, the program has successfully assisted in developing training for pediatricians and primary care providers to screen their adolescent and adult patients for unhealthy substance use (using a Screening, Brief Intervention, and Referral to Treatment model). Program residents are involved in these programs – as part of the organization, training, and implementation – which has provided excellent SUD/ODU experience and visibility for them. Residents also participated in the Maine Health MAT Project ECHO (Extension for Community Healthcare Outcomes). Within this MAT Project ECHO program, residents completed buprenorphine waiver training by learning how to prescribe buprenorphine, participate in MAT groups as elective experiences, and attend training on trauma-informed care. Residents collaborated with the Gilman Clinic (an outpatient center that provides preventive care and treatment for patients with hepatitis, HIV, and related infectious diseases) and Preble Street Learning Collaborative (which addresses unmet health care needs of homeless populations, providing clients with short-term, targeted case management to assist in accessing primary care, behavioral health services, and referrals to specialists). Through collaboration at these sites, residents provided primary and preventive care to patients with infectious diseases and behavioral health conditions.

MICHIGAN

Regents of the University of Michigan

COVID-19 Response Activities: Residents’ COVID-19 support efforts included participation in vaccine clinics across multiple communities, contact tracing, and case investigations for the counties of Genesee, Wayne, Jackson, and Washtenaw and the city of Detroit. Residents supported local health departments by serving as part of the COVID-19 Emergency Response Team, providing reviews on vaccinations and the effectiveness of mask usage, and other mitigating approaches. Residents created a COVID-19-specific toolkit for schools and supported the safe return of children to soccer leagues. They also contributed to control and prevention efforts in long-term care facilities and assisted a health system by evaluating its nurse-led, telephone-based active management protocol for COVID-19 patients. One resident contributed to the development and publication of a manuscript on COVID-19 outbreaks among vaccinated individuals.

Health Equity and Diversity Activities: Residents participated in activities related to health equity and disparities secondary to COVID-19, such as improving testing, vaccination, and treatment

with monoclonal antibodies. They also addressed race in infant mortality by assisting in the re-establishment of Fetal Infant Mortality Reviews in Genesee County and educated community organizations on racial health disparities among the pediatric population.

Substance Use Disorders/Opioid Use Disorders Activities: Residents developed a new syndromic surveillance system for SUD and developed metrics on opioid prescribing for a clinically integrated network physician scorecard, in alignment with the CDC's 2016 Guideline for Prescribing Opioids for Chronic Pain.

MISSISSIPPI

University of Mississippi Medical Center

COVID-19 Response Activities: Residents provided support to the University of Mississippi Medical Center Student and Employee Health Service by conducting COVID-19 testing, screening, and tracking of employee results. Residents provided medical center employees with appropriate isolation and return to work guidance, contributed to the medical center's infection prevention practices by designing efforts to reduce needlestick injuries, and assisted with the development and revision of policies. Residents supported the state public health department by participating in meetings with federal and state partners on the pandemic response, investigating unique disease cases, assessing surveillance systems, and writing articles intended for publication.

Health Equity and Diversity Activities: Residents received health equity and diversity training through participation in the John D. Bower School of Population Health, SDOH course, as well as rotations within Myrlie Evers Care Pantry and Outreach Clinic. During Myrlie Evers Care Pantry and Outreach Clinic rotations, residents applied lifestyle medicine and preventive knowledge towards creating heart-healthy and diabetic food packages for members within disadvantaged communities.

Substance Use Disorders/Opioid Use Disorders Activities: Residents participated in a clinical rotation in the University's Addiction Psychiatry clinic. This rotation provided exposure of medical students, psychiatrists, and preventive residents to the opioid epidemic and management practices. Residents learned how to obtain a comprehensive addiction history and participated in multidisciplinary discussions on treatment approaches for disorders related to alcohol, methamphetamine, and cocaine use. Residents discussed the influence of other mental illnesses on substance use and how, in a team approach, providers can tailor treatment with incorporated relapse prevention strategies. This training prepared program residents to address SUD/ODU following program completion, thereby increasing the number of SUD/ODU providers available.

Telehealth Activities: The University of Mississippi Medical Center residents participated in an overview of telehealth and worked on small-scale improvement projects with the Center for Telehealth Excellence as part of their Health Services Management rotation in postgraduate year (PGY)-2. The Lifestyle Medicine Clinic converted their services to 100 percent telehealth following the initial COVID-19 surge in 2020, resulting in a reduction of no-show rates and further reach into rural communities. Residents used telemedicine in many clinical rotations, including but not limited to pain management, addiction psychiatry, family medicine, and sleep medicine.

NEW JERSEY

Rutgers, The State University of New Jersey

COVID-19 Response Activities: Residents worked closely with local and state public health agencies and contributed to activities related to COVID-19 response efforts. One resident served as a member of the Newark Homelessness Commission’s COVID-19 Task Force, providing updates on vaccines, testing, trends in the pandemic, and the latest CDC and New Jersey Department of Health guidelines for pandemic control, and presented findings at the 2021 American College of Preventive Medicine Conference. During a rotation at the Newark Department of Health, a resident led a team of public health students in the monitoring of COVID-19 trends and control measures in five long-term care facilities in Newark. The resident presented results of this monitoring at the American Public Health Association’s 2021 Annual Meeting. Two residents joined “Believe in a Healthy Newark” and continued to prepare educational materials on COVID-19 for students and parents of Newark Public Schools. Residents also participated in a New Jersey Department of Health study, analyzing the overlap of COVID-19 and HIV, as well as COVID-19 paired with other chronic conditions, in 10 long-term care facilities across northern, central, and southern New Jersey.

Health Equity and Diversity Activities: Residents trained on providing preventive services within Newark’s majority-minority city and established systems to improve patient access to preventive services at the program’s affiliated training hospital.

Substance Use Disorders/Opioid Use Disorders Activities: Residents provided primary care and counseling to Newark-area patients living with addiction, homelessness, and other related behavioral health conditions through the New Jersey Medical School’s Department of Medicine Addiction Clinic. The residents also evaluated the role of substance addiction on delayed cancer screening; participated in addiction care for women during and following pregnancy; and contributed to the VA SUD/ODU response efforts.

NEW MEXICO

University of New Mexico

COVID-19 Response Activities: Residents played key roles in conducting exposure assessments and implementing vaccine programs. Residents created and directed a COVID-19 Call Center to triage exposed and symptomatic persons. Residents provided COVID-19 vaccines during mass vaccination events, both through administration of vaccines and in providing medical attention to anyone reporting potential side effects. Residents also assisted the New Mexico Department of Health in supporting individuals experiencing homelessness during the COVID-19 pandemic.

Healthy Equity and Diversity Activities: Residents received education focused on health equity and diversity to support vulnerable communities. Residents gained experiential education by working primarily with university programs and the New Mexico Department of Health.

Substance Use Disorders/Opioid Use Disorders Activities: Through a partnership with the University of New Mexico’s Addiction and Substance Abuse Program, residents provided clinical care to adults and adolescents with a primary substance abuse diagnosis and to individuals who have a SUD and other mental health issues. Residents trained in preventive measures such as harm reduction, needle exchange, and behavioral counseling. One recent program graduate, now a faculty member in the Addiction Medicine Program, has provided clinical care in rural Rio Arriba County, which has the highest total drug overdose death rate and alcohol-related death rate in New Mexico. Another PMR graduate is currently in an addiction medicine fellowship program and a senior resident was accepted into the fellowship program.

NEW YORK

The Research Foundation for the State University of New York, Stony Brook

COVID-19 Activities: Residents continued to contribute to the COVID-19 response effort by serving as medical consultants for numerous vaccination clinics organized by Stony Brook University and/or the county health departments, conducting research on vaccine hesitancy and providing patient counseling to increase vaccine acceptance. While providing care in the Stony Brook University Hospital Employee Health Service, residents monitored and provided return-to-work guidance to hospital employees who were either exposed to or symptomatic from COVID-19. They also supported the hospital’s emergency preparedness plan to manage surge capacity in the presence of staffing shortages.

Health Equity and Diversity Activities: Residents received innovative training in telemedicine (tele-preventive) designed to reduce inequities related to increased preventable illness and mortality among minorities and other disadvantaged groups. Residents adopted the “Protocol for Responding to and Assessing Patients’ Assets, Risks, and Experiences” (PRAPARE) into the resident-led tele-preventive medicine services. The PRAPARE tool is a national effort to better understand and act on the patient’s SDOH and is integrated in Stony Brook’s electronic medical record system to collect data needed to identify socioeconomic drivers of poor outcomes and high costs. This data allows residents and other health care providers to understand and act on their patients’ SDOH. The tele-preventive medicine service partners with family practitioners at Stony Brook’s family medicine patient-centered medical home to provide patient care, allowing PRAPARE to assist these physicians in better defining and documenting the increased medical complexity of their patients and connect them to resources to improve care. Another major objective of Stony Brook’s PMR project is to increase the number and diversity of preventive medicine resident enrollees and improve training for these residents. The success in recruiting minority residents has resulted in increasing the diversity of the faculty, as graduates become faculty.

Substance Use Disorders/Opioid Use Disorders Activities: Residents received training opportunities in addiction medicine at the VA training site, in-county methadone maintenance clinics, federally qualified health centers, and within an affiliated hospital addiction service, motivating some residency graduates to pursue fellowships in addiction medicine.

NORTH CAROLINA

University of North Carolina at Chapel Hill

COVID-19 Response Activities: Residents supported the University of North Carolina Hospital Occupational Health department by performing assessments and clearances of employees who tested positive for COVID-19. Residents also compiled data and championed workflow developments to maintain the institution's health care workforce. While staffing mobile COVID-19 vaccine clinics, residents provided vaccines within rural and migrant communities.

Health Equity and Diversity Activities: Residents participated in a 2-day Racial Equity Institute groundwater training. This training included seminar sessions on pediatric lesbian, gay, bisexual, transgender, queer care; racial disparities in cardiovascular outcomes in North Carolina; and rural health access. Preventive medicine residents continued to participate in the annual Carolina First Look weekend, which is a minority recruitment activity for all university residencies. This is a partnership with the Office of Scholastic Enrichment and Equity, which supports underrepresented students interested in health professions.

Substance Use Disorders/Opioid Use Disorders Activities: The PMR and HRSA's Addiction Medicine Fellowship Programs have collaborated to create cross-training opportunities for preventive medicine residents and addiction medicine fellows through joint participation in preventive medicine and addiction seminars. Preventive medicine residents receive required training in opioid abuse and opportunities to receive MAT training.

PENNSYLVANIA

The Trustees of the University of Pennsylvania

COVID-19 Response Activities: The COVID-19 pandemic offered residents opportunities to participate in real-world training in epidemiology, biostatistics, and population health. Residents were well-positioned to contribute to the COVID-19 pandemic response by participating in experiential projects, resulting in the development of effective risk matrix tools to assist managers in mitigating and communicating COVID-19 workplace transmission risks. A resident who was completing the required clinical rotation in his place of residence (called training in place by the program) collected and provided the Maryland Department of Health with data on testing site positivity rates, observing the association between staff use of masks with education level, gender, title, age, and years worked in the field of health care. Another resident formed a team of subject matter experts to evaluate and address dermatologic concerns related to prolonged use of N95 masks and conducted a nationwide online survey to assess perceptions regarding personal protective equipment availability and association with burnout among over 1,000 participating United States health care workers.

Health Equity and Diversity Activities: The program continued to work towards increasing the number of underrepresented minorities in their program. Since 2008, the program's Diversity and Inclusion Committee, consisting of the Program Director, faculty, residents, and graduates, discussed methods to increase underrepresented minorities in medicine. As a result of the committee's efforts, the program's rate of underrepresented minority graduates has increased from 6 percent (1999 to 2008) to 23 percent (2008 to 2020). On average, the program trained a diverse group of graduates over the years, exceeding the national average for underrepresented minority physicians.

Substance Use Disorders/Opioid Use Disorders Activities: Residents had the opportunity to attend optional opioid conferences titled, “*Lifesaving Interventions in Opioid Utilization at Penn Medicine*” and “*Opioid Addiction and Other Substance Use in the Era of COVID-19,*” in addition to participating in lecture seminars on opioid use.

WEST VIRGINIA

West Virginia University Research Corporation

COVID- 19 Response Activities: Residents worked in rural and urban county-level health departments to promote vaccine acceptance, track vaccine uptake, and evaluate current vaccine programs. In partnership with a health department epidemiologist, residents tracked COVID-19 cases and trends. Residents supported West Virginia University’s Employee Health Department faculty by responding to employee calls, providing counseling to concerned employees, and providing employees with resources for appropriate follow-up care. Program residents worked extensively in community vaccine clinics and have seen first-hand the effects the pandemic has had on local urban and rural communities. Residents continue to engage in educational opportunities on an ongoing basis, particularly with the West Virginia University Extension for Community Healthcare Outcomes Program, which provides specialist information and responses to physicians in rural areas of West Virginia. This residency is the only PH/GPM program in the region of Appalachia.

Health Equity and Diversity Activities: The mission of the PMR Program is to train physicians to address disparities in health care access and health outcomes in rural and underserved populations of West Virginia and other Appalachian states. The Appalachia Region faces significant challenges in public health due to a lack of physicians with the skills to plan, implement, and evaluate community programs or advocate for improved access to health care for underserved populations. Residents dedicate half a day each week to work with a West Virginia University physician conducting research into reasons for barriers to care for peripheral vascular disease, disparities of health access and quality in different counties, and ways to improve access and outcomes. The program developed a Lifestyle Medicine Clinic to assist individuals with needed lifestyle changes as 85 percent of morbidity and mortality is due to lifestyle risk factors in chronic disease. The clinic will provide both virtual and in-person services. Care is personalized, with individualized assessments and care plans developed by a multidisciplinary team. Outreach to those living in rural areas of West Virginia will occur through virtual assessments and management, with plans to extend in-person services throughout the state in the future.

Substance Use Disorders/Opioid Use Disorders Activities: The PMR Program provided residents with substantive education in the assessment and management of SUD and OUD. Residents participated in longitudinal clinical rotations in a Dual Diagnosis Unit during each of the 2 years of the program. They learned first-hand about the effect of untreated mental health and SUD issues and better understood the needs of underserved communities. Residents completed didactic instruction in smoking cessation, alcohol use disorder, OUD, and SUD. Residents applied the acquired knowledge and skills in the Lifestyle Medicine Clinic and in Intensive Therapeutic Lifestyle Change outpatient setting. Residents learned how to transfer knowledge acquired into program planning, implementation, and evaluation at the population level in health department settings.

VI. Summary and Conclusions

The PMR Program supports HRSA's goals of fostering a health care workforce capable of addressing current and emerging needs, achieving health equity, and enhancing population health while ensuring underserved communities have access to quality health care and support services.

Health priorities, such as addressing emerging infectious diseases and non-communicable chronic diseases, present tremendous challenges and require solutions involving prevention, public health strategies, and leadership. Preventive medicine physicians, through their clinical and public health preparation, provide this essential leadership and expertise in many areas of health care, including integrating public health with primary care, providing leadership in governmental public health, and conducting outbreak investigations to prevent the spread of emerging diseases.

This report describes the efforts undertaken by HRSA's PMR programs to increase the number of preventive medicine physicians who address public health needs and enhance the quality of their training. These efforts demonstrated how the funded programs advance key components of health service delivery and strengthen the health care system's focus on prevention and health promotion. Such efforts increase interprofessional training and improve the quality of care delivered through community health centers by strengthening their collaboration with public health systems.

The preventive medicine physicians that complete these programs contribute to HRSA's mission to improve health and reduce health disparities by increasing patients' access to quality services, strengthening the skilled health workforce, and engaging in innovative programs. After graduation, the residents practice in and lead local and state health departments and federal public health agencies; serve as medical directors in community health centers; research and teach in academic settings; enter into additional fellowship training; and work as quality improvement specialists and medical informatics specialists (specialists in health information technology, such as electronic medical records and data analysis). Program participants, through their clinical and public health roles in a wide variety of settings, promote the incorporation of public health and preventive health care into primary care and the improvement of population health.