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Title of Initiative: Understanding and Addressing Health Disparities and Health Care Among Rural Populations

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Objective: To address gaps in scientific knowledge and support research that addresses multilevel and multiple domains influences related to health disparities experienced by people who live in rural communities.

Background: Unlike other populations served by NIMHD that experience health disparities, rural residents cannot self-select to be rural or non-rural. After the 2010 census, 19.3% (59.5 million) of the nation's people were classified as members of the rural population, and 97% of the land area as rural.

Underserved rural populations face notable contextual and structural challenges compared to urban populations, including persistently high poverty rates over decades, lower educational attainment, and a lack of resources needed to support public health infrastructure. Multiple factors of social determinants of health (SDOH) such as food deserts, transportation barriers, and lack of jobs that pay well, impact the livelihood of rural communities.

Rural populations are not one homogeneous group. Historically, non-Hispanic Blacks have represented the largest minority population in rural communities. By the 2010 census, Hispanics had become the largest group. There is variation in health disparities, risk factors and health outcomes within and across rural population groups. For example, there are unique geographic, socioeconomic, geopolitical, and cultural contexts for populations within Appalachia, the Mississippi Delta, the Plains States, and Alaska, as well as for Blacks in the South, Latinos in the West, and American Indians, Native Hawaiians and Pacific Islanders.

Other factors contributing to rural health disparities include a greater likelihood of being uninsured, social isolation, exposure to environmental carcinogens from agricultural and industrial production, insufficient broadband connectivity or access to telehealth, medical mistrust and misinformation, fatalism, and discrimination. In addition, there are contextual (social, economic, place/built environment) challenges, as well as forms of resilience, unique to

rural areas that impact access to and utilization of health care services, and the health and well-being of rural communities.

The rates of the leading causes of death (heart disease, cancer, unintentional injuries, chronic lower respiratory disease, stroke) are higher in rural compared to urban populations. The CDC's Behavioral Risk Factor Surveillance System reported that, from 2012 to 2015, adults living rural areas were unable to see a doctor in the past 12 months, and rural racial and ethnic minority groups reported multiple chronic conditions, high obesity rates and lack of leisure time. Hospital closures within each community result in fewer health care facilities available for medical and follow-up care. As a result, a health care workforce shortage and lack of specialty care (e.g., OB/GYN, surgeons, dieticians, psychiatrists) limit access to high-quality, affordable care. In 2020, only 38% of the rural population had access to a comprehensive public health system, compared to 51.7% of urban populations; 61.5% of Primary Care Health Professional Shortage Areas (<https://bhw.hrsa.gov/workforce-shortage-areas/shortage-designation#hpsas>) are in rural areas. Women residing in rural areas that are characterized as maternal care deserts have a 60% higher likelihood of maternal mortality.

Research Gaps: Though much funded research has addressed rural populations, research on structural contextual SDOH (Healthy People 2030 <https://health.gov/healthypeople>) that are unique to rural communities with multilevel impetus are needed. There is a need to identify and implement interventions and strategies to improve access to and utilization of high-quality services in public health, primary and specialty medical care, mental health, behavioral health, and dental care in rural underserved communities. Communities in rural areas are physically spread out, and there is a lack of research to test coordinated care among health professionals in primary and specialty practice, and at different public health agencies at the local, state and federal level, to improve health outcomes. There is inadequate research to address multilevel factors and intersectionality of various conditions, characteristics, and identities associated with health disparities in rural populations. For example, there is a lack of studies addressing factors that contribute to poorer health, such as studies on the lack of broadband connectivity for telehealth and its impact in rural communities.

Description of Initiative: NIMHD's 2021-2025 strategic plan focuses on fostering and funding research in rural communities to reduce health disparities experienced by rural populations due to structural and social determinants of health. Research studies in rural populations require attention to the unique geographic, geopolitical, and cultural context of each community. Research models must integrate community engagement and partnerships with community organizations, faith-based organizations, libraries, school, local patient or consumer advocacy groups, community champions, local groups representing special populations and/or other relevant community stakeholder groups.

Potential research areas must focus on rural populations, and projects can include but are not limited to:

- Studies that describe, develop, test and/or evaluate innovative strategies or care models, to optimize access to primary care and specialty care in rural areas, as well as coordination and continuity of care from the community-out and back to the community, especially for persons with multiple chronic diseases (MCCs), older adults, persons with disabilities, SGM individuals, and immigrants; and addressing emergencies, including cardiovascular events, unintentional injury, substance use disorders, mental health, and maternal mortality and morbidity. These studies should include the integration of various health professionals such as primary care and specialty care practitioners, pharmacists, nurse aides, nurse practitioners, and EMTs, at different points of care, and via different platforms (e.g., telemedicine, mobile units).
- Multilevel, multidomain and transdisciplinary studies that identify and implement strategies to include community-based partnerships that build and/or strengthen partnerships between rural health care settings and academic care settings to reduce health related disparities at the individual, family, and community level and across the life span.
- Studies addressing rural health disparities, poverty, and access to care that develop multisectoral interventions that strengthen the collaboration and integration of social services and health care systems across sectors (e.g., public health departments, mining facilities, agricultural farms, health systems, school systems, community-based organizations, and businesses).
- Studies that examine the intersection of rurality, racial and ethnic minority identities, and health disparities. For example, the understanding of race and ethnicity and socioeconomic status and culture within rural communities.