OVERVIEW

On July 31, 2018, the National Institute of Nursing Research (NINR), together with its National Institutes of Health (NIH) partners, the National Institute on Aging, National Institute of Alcoholism and Alcohol Abuse, National Institute of Diabetes and Digestive and Kidney Diseases, National Institute of Environmental Health Sciences, National Institute on Minority Health and Health Disparities, Office of Research on Women’s Health, Office of Behavioral and Social Sciences Research, and Office of Disease Prevention, convened a Workshop on the "State of Rural Health Disparities: Research Gaps and Recommendations." The Workshop examined current research findings on rural health disparities and, with almost 60 presenters and participants, provided an opportunity for scientists and health advocates to come together to catalyze and shape the future research agenda for this often-overlooked critical area.

The U.S. Surgeon General, Dr. Jerome Adams, Deputy Surgeon General, Dr. Sylvia Trent-Adams, and the Director of the NINR, Dr. Patricia Grady, opened the workshop and set the tone for the full-day discussion on building the science of understanding and addressing rural health disparities.

There was consensus on a number of points, including:

- the need for NIH to create funding opportunities focused on building community based participatory relationships, which are critical for conducting rural health research;
- challenges of the rural health environment that preclude adoption of the research strategies developed to study urban health disparities;
- the lack of innovative research designs and approaches relevant to rural settings;
- the need to test sustainability of interventions;
- the importance of defining rurality and recognizing rural residents as a unique population, while also identifying the diversity within the rural population and adopting culturally appropriate approaches.

Throughout the day, participants had the opportunity for more granular conversations to promote future collaborative opportunities.

In sum, the workshop highlighted the challenges and triumphs of rural health disparities research and helped identify gaps and opportunities for research targeted at rural populations.

Opening Welcome and Remarks:
The Honorable Jerome Adams, U.S. Surgeon General, led off the workshop, highlighting the need to address rural health disparities across the United States. He described the theme of his tenure, “better health through better partnerships,” stating that there is a critical need to empower all members of the healthcare team to practice at the highest levels of their abilities.
The next speaker, Rear Admiral Sylvia Trent-Adams, Deputy Surgeon General, pointed out leading causes of death that are much more prevalent in rural communities. She noted that although smoking rates are decreasing at the national level, the rate in rural areas, for the most part, has remained the same and or even increased. Dr. Trent-Adams outlined how better partnerships in rural health nursing and rural health nursing research can contribute to better health for rural communities.

Dr. Mary Roary, NINR Program Director, welcomed attendees and described the goals of the workshop, encouraging attendees to identify solutions together and develop action-oriented recommendations. The meeting chair, Dr. Lisa Cacari-Stone, University of New Mexico Associate Professor of Health and Social Policy, College of Population Health Director, and Assistant Director, RWJF Center for Health Policy, gave an overview of rural health in the United States. At the time of the 2010 Decennial Census, nearly 60 million people—about 19 percent of the population—lived in rural areas of the country. The Census Bureau defines rural as any population, housing, or territory not in an urban area (population >50,000).

Dr. Patricia Grady, Director, NINR, presented the workshop vision and charge. She summarized the differences between urban and rural health disparities. The strong focus on urban health needs can be attributed to the critical mass of individuals that draws attention and caregivers, journalists, and providers. On the other hand, rural areas have been overlooked to a great degree leading to isolation of rural populations and lack of access to healthcare. Dr. Grady highlighted the fact that technology offers opportunities to address rural health disparities, but investigators must recognize that not everyone has easy access to the Internet and cell phones. She expressed hope that the collective expertise gathered would be able to assess the state of the science and identify options for reducing these disparities. She challenged participants to ensure sustainability of connections made during the workshop to support ongoing work to address the health disparities and needs of rural populations.

The Workshop was divided into four major sessions:

I. Health Promotion and Disease Prevention in Rural Areas
II. Health Disparities within the Rural Population
III. Approaches to Managing Chronic Conditions in Rural Areas
IV. Environmental Influences, including Technology, on Rural Health

Each session addressed specific research questions and challenged the presenters to brainstorm action-oriented solutions and to highlight their research successes, failures, and lessons learned.

**Session I. Health Promotion and Disease Prevention in Rural Areas**

*Guiding Questions:*
- What health promotion and disease prevention strategies have been proven effective in rural areas?
- What current screening and prevention activities are common in rural areas?
- What additional prevention approaches are needed to address common disease conditions in rural areas?

**Speaker 1 Dr. Terry Davis, Louisiana State University HSC at Shreveport**, described the connection between low health literacy and health disparities in rural areas, summarizing her work on colorectal cancer screening and increasing participation in clinical trials.
Speaker 2 Dr. Nancy Schoenberg, University of Kentucky, described how leveraging assets of local organizations can help improve rural health, focusing on interventions for cervical cancer screening and improved self-management of diabetes.

Speaker 3 Dr. Debra Parra-Medina, University of Texas at Austin, described interventions in south Texas designed for prevention and management of obesity, and best practices for human papillomavirus (HPV) vaccination.

In the discussion session, participants agreed that more time is needed in the research process to establish a strong community partnership before conducting the research. The partnership is also critical to ensuring sustainability after interventions have been tested and impact demonstrated.

Session II. Health Disparities within the Rural Population
Guiding Questions:
- Within the rural population, what are the challenges faced by specific subpopulations?
- What is the role of access to care and social/cultural factors in contributing to rural health disparities?

Speaker 1 Dr. Marie Bakitas, University of Alabama, presented unique palliative care access challenges for rural patients with serious illness.

Speaker 2 Dr. Teresa Brockie, Johns Hopkins University, reviewed the challenges faced by specific American Indian/Alaska Natives and other rural subpopulations because of limited access to healthcare. She described a culturally informed intergenerational approach to reduce trauma, substance abuse and suicide in Native American communities.

Speaker 3 Dr. John Lowe, Florida State University, described the link between health disparities and historical trauma arising from the massive dispossession of Native people from their ancestral lands and establishment of Indian Boarding Schools. He discussed an intervention to prevent substance abuse in Native youth.

In the discussion, there was consensus that using a culturally-based approach remains important. Moreover, participants felt that rural health barriers have been studied long enough, and now is the time to focus on what works.

Session III. Approaches to Managing Chronic Conditions in Rural Areas
Guiding Questions:
- What strategies have been shown to be effective in addressing chronic conditions in rural areas?
- What additional approaches are needed to address the diagnosis, treatment and management of chronic disease conditions in rural areas?

Speaker 1 Dr. Janice Probst, University of South Carolina, shared her findings that there is a persistent disparity in access to preventive services and care management resources in rural population areas.
Speaker 2 Dr. Ryan Westergaard, *University of Wisconsin*, highlighted the importance of a multi-pronged, coordinated response that engages numerous stakeholders, utilized in his studies of real-time enactment of a needle exchange policy to prevent HIV.

Speaker 3 Dr. Jennifer Shaw, *Southcentral Foundation*, explained how she and her colleagues have developed approaches to address the challenge of providing high-quality healthcare, for medical, dental and behavioral issues, for Alaskan Natives in remote locations.

During the discussion, participants emphasized that “rural is not small urban.” Rural areas have a distinct identity and researchers need to be mindful of this fact when they are designing their studies and strategies to address rural populations.

**Session IV. Environmental Influences, including Technology, on Rural Health**

*Guiding Questions:*

- What measures are used to characterize the “environment” in rural areas that impact health?
- What strategies can be implemented to address the adverse impact of environmental factors on health in rural areas?

Speaker 1 Dr. Amy Elliott, *Avera Research Institute*, shared research from a collaboration with the Indian Health Service to help improve care access and quality of outcomes, especially in relation to substance use and SIDS prevention in rural areas.

Speaker 2 Dr. Julia Gohlke, *Virginia-Maryland College of Veterinary Medicine*, presented data-based approaches to defining rurality in a project titled, Community Engaged Environmental Health Research in Urban and Rural Alabama, and described her studies to assess effects of air quality on health.

Speaker 3 Dr. Janis Kupersmidt, *Innovation Research & Training*, presented research focused on the prevention of the use of alcohol, tobacco, and other drugs by children in rural communities, using a school-based curriculum to teach children media literacy skills (how to interpret the hidden messages).

The major conclusions of the discussion were that community-based participatory research (CBPR) methods facilitate open communication about cultural norms, and using technology has some advantages, but also some limitations, for working with rural populations.

**CLOSING REMARKS: Dr. Patricia Grady**

Dr. Grady thanked attendees for their robust presentations and lively discussion and expressed appreciation to all who shared ideas, intellectual capital, successes, and lessons learned. Several important themes emerged around the balance between short- and long-term research gains, particularly in low-resource environments. Presenters commented on tapping into existing assets, such as social groups whose members share common goals and interests.

In addition to successes, lessons learned, and recommendations, another important workshop outcome was the development of collaborative relationships and partnerships among workshop participants that will continue to yield new strategies aimed at reducing and/or eliminating rural health disparities.