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COMMENTARY

# Rural mistrust of public health interventions in the United States: A call for taking the long view to improve adoption

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The drug overdose epidemic and Coronavirus Disease of 2019 (COVID-19) pandemic diminished the health of rural* communities in the United States, and their interaction had harmful synergistic effects. However, many rural residents mistrust public health interventions.[1] We are health services researchers who grew up in the rural Midwest, with viewpoints informed by different disciplines (social work and general internal medicine). Over our lifetime, we witnessed the accumulation of mistrust of health care institutions among residents of our home communities. The issue of mistrust is so deep that friends, family, and community leaders question our expertise after relocating to academic jobs in urban communities. As such, we believe the only sustainable way to improve adoption of public health interventions in rural communities requires acknowledgment of the longstanding pattern of health care divestment in rural areas and creation of long-lasting partnerships between the health care system and rural communities. Conversely, solutions that seek to solve this issue with short-term remedies only represent a continuance of the norm, and in the eyes of rural residents, will be unlikely to dismantle mistrust that has grown over generations.

To illustrate the impact of mistrust on health, we focus on how this issue affects 2 current public health interventions, medications for opioid use disorder (MOUD) (buprenorphine, methadone, and extended-release naltrexone) and COVID-19 vaccines, both of which reduce mortality and promote health. Leading health care institutions, like the Centers for Disease Control and Prevention[2] and the Substance Abuse and Mental Health Services Administration,[3] have recommended the widespread adoption of these interventions. Despite these institutional endorsements, MOUD treatment and COVID-19 vaccination rates are lower in rural versus urban communities.[4,5] These geographic inequalities in adoption hamper our response to the overdose and COVID-19 syndemic. Addressing these inequalities is critical given the widening mortality gap between rural and urban residents in the United States.[6] While multiple factors contribute to urban-rural differences in adoption, mistrust represents a key barrier withi rural communities. Here, we discuss longstanding historical patterns and reasons that may promote mistrust of public health interventions among people living in rural areas; and second, we outline actions to improve rural trust and adoption. We believe this historical framing of the topic is necessary to resist the search for quick, but insufficient solutions, and support long-lasting improvements in public health intervention adoption in rural communities.

## LONGSTANDING PATTERNS THAT PROMOTE RURAL MISTRUST

In the context of the pandemic, there is understandably much interest in the role of knowledge and misinformation in the adoption of public health interventions like MOUD and COVID-19 vaccines. Research has identified higher mistrust of government and institutions among rural communities of the United States,[7] mistrust of health services among racial and ethnic minority populations in rural areas,[8] and examined the role mistrust of scientific information plays in adoption of public health guidance among the politically conservative.[9] These are all

* Given the heterogeneity of rural-urban codes, here we use "rural" to refer to sparsely populated communities and small cities with less diversity in economic activity.

important areas of inquiry. However, examining mistrust of institutions or health services among rural individuals or susceptibility to misinformation without considering historical contextual factors may reinforce negative stereotypes about rural populations, especially the rural poor. Disparaging attitudes toward the rural poor in the United States extend back to the earliest colonies. Poor white colonists were seen as vagrants to be discarded from the land of American exceptionalism.[10] Most rural Black people trace their ancestry to chattel slavery and rural Native American communities faced colonization and displacement.[11] Since the end of the 1970s, other historical forces, including globalization, automation, and austerity policies, increasingly concentrated social and economic prosperity within a few global cities, while smaller cities and rural areas often experienced divestment, population loss, and worsening health.[12] These events coincided with federal and state policies that consolidated health care services among urban academic medical centers and caused the contraction or closure of rural hospitals and health care services.[12] In the midst of these events, public and private health care institutions either declared opioid medications for chronic pain safe and effective, while often benefiting financially from this messaging, or failed to adequately intervene to curb opioid prescribing. The subsequent increased prescribing of opioids was an early accelerant of the overdose epidemic that uniquely impacted rural communities. These events represent repeated and ongoing violations of trust for rural communities by health care institutions.

It is not uncommon to hear from rural residents the health care system is designed for wealthy urban communities, and that health care leaders do not prioritize rural needs. A lack of rural representation contributes to this perception and undermines trust. Academic-rural community partnerships are challenged by the scarcity of research-intensive universities in rural areas; similarly, rural residents frequently face long travel to urban facilities for specialty health care due to rural workforce shortages.[13] Considerable barriers exist for rural residents to become credentialed and lead rural health research and service delivery. Furthermore, few research studies gather primary data from rural residents, typically relying on administrative data to guide planning.[13] Collectively, this history, longstanding pattern of rural divestment, and lack of representation have fostered mistrust about public health interventions. Engagement with rural communities only after the emergence of a public health threat, with disease-specific time limited programs, is unlikely to be well received by local residents, and if relationships between health care systems and rural communities end soon thereafter, may even foster more mistrust. Thus, these circumstances require a comprehensive set of actions to increase adoption in the long-term.

## ACTIONS TO IMPROVE RURAL ADOPTION OF PUBLIC HEALTH INTERVENTIONS IN THE LONG-TERM

Because the drivers of mistrust accumulated over time, addressing the problem will require sustained commitment and meaningful inclusion of rural perspectives and priorities. Health services researchers, health care organizations, and government institutions are advised to enhance trust by using community-engaged partnerships with rural sites and organizations in advance of the next public health challenge (Action 1). Some promising partners are local community coalitions, faith-based organizations, rural health planning networks, cooperative extensions, and county health departments. These community-engaged partnerships should reflect the increasing diversity of rural communities and be inclusive of rural residents from historically marginalized groups (eg, Black/African Americans in the Deep South, Hispanic/Latinos in the American Southwest, and American Indians in the Great Plains). Partnerships can establish hubs for local implementation, create a feedback loop among partners to guide rural-specific recommendations, help identify rural representatives to deliver health communications, and enhance the credibility of outside institutions and individuals through established relationships with rural partners. Informed by rural partnerships, health communications can describe how public health interventions align with rural priorities and will be less likely to make the mistake of "blaming and shaming" skeptical rural residents.

These rural partnerships should include efforts to diversify the scientific and health care workforce with people from rural communities (Action 2). Increasing representation will improve the incorporation of rural needs within scientific studies of public health interventions and improve rural credibility during implementation. Even when seemingly meritocratic, health science and medical training may exclude historically marginalized groups, including the rural poor. Workforce diversification will require critical review of how rural availability of meritocratic educational opportunities and credentialism impacts who has a voice in rural research and policy. Inclusion of alternative certification pathways and advanced practice providers may be of particular importance for developing leaders with rural experiences.

Studies of public health interventions inclusive of rural perspectives are needed (Action 3). Methodology should incorporate geography into sampling strategies to capture regional and neighborhood variation across urban and rural communities and to facilitate rural-urban comparisons. These findings have the potential to identify rural-specific implementation needs that inform development and testing of rural-adapted interventions, but the feasibility and impact of these studies depends on the development of meaningful partnerships with rural communities.

Ultimately, renewed trust long-term will require new health care service delivery models centered on rural needs (Action 4). Meaningful inclusion of rural perspectives will require predominantly urban health care institutions, such as academic nonprofit medical centers, to cede some power back to smaller local communities. The public health mission of many of these health care institutions should align with such a shift, but organized community pressure is likely to be required. Making health care decisions more democratic is likely to result in greater investment in rural health care infrastructure, expansion of rural services, and reversal of health care service commodification, which contributed to rural health care austerity. These

should meaningfully include rural perspectives from start-to-finish, which may inform policies aiming to expand Critical Access Hospital eligibility, reform reimbursement models so that rural hospitals and primary care clinics can operate with reduced financial vulnerability, and reduce regulatory burdens on difficult to access treatments like MOUD.[14]

## CONCLUSIONS

Rural mistrust of public health interventions is an outgrowth of long-term negative attitudes toward rural communities and disinvestment from rural health care services. Sustained meaningful inclusion of rural perspectives is critical to regaining trust. Key actions, such as community-engaged partnerships, increasing the diversity of the scientific and medical workforce, gathering the perspectives of rural residents during the research process, and investing in rural-centered health care delivery models, have the potential to enhance trust and promote greater rural adoption of public health interventions before the next crisis.

### DISCLOSURES

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