Rural Public Health Systems: Challenges and Opportunities for Improving Population Health

Summary

The nation's sharp focus on population health and the reform of health care systems underscores the need for developing a sound understanding of the current role of local health departments in rural communities and how they adapt to shifts in national policy. The research synthesis presented here reviews published scientific articles and selected grey literature specific to rural public health systems and local health departments. It represents a compendium of the existing body of knowledge on this subject.

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Introduction

Historically, rural communities face many challenges that translate into notable differences in health status. Rural populations experience higher rates of mortality than their urban counterparts, with gaps expected to widen in the near term particularly for rural minorities.[1,2]

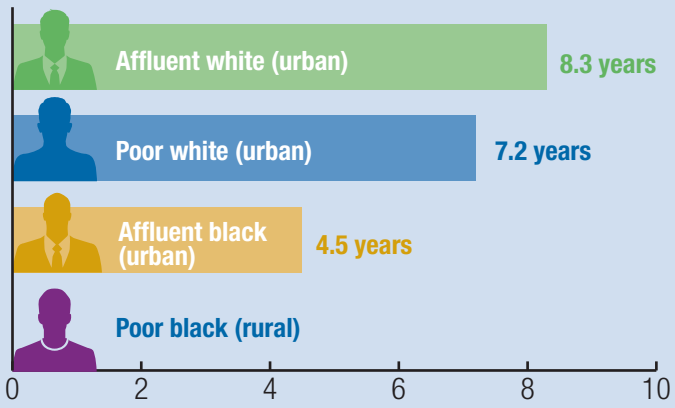
Differences in unintentional injury and chronic conditions largely underlie lower life expectancies in rural communities.[1] Behavioral and health care factors also contribute to observed inequalities. Approximately 35 percent of rural populations are considered obese versus 27.5 percent of urban populations.[3] Rural populations also account for more people living with diabetes (9.0 percent) compared to urban populations (7.7 percent) and are less likely to receive important preventive services.[4,5] Smoking remains more common in rural communities, with 27 percent of adults using tobacco versus 16 percent of urban adults.[3]

Advancing the health of rural communities must also consider important social and economic factors. Poverty and unemployment, lower levels of educational achievement, and the lack of access to affordable health care are some of the factors that contribute to poor health outcomes, and all of these factors are more common in rural communities than in urban areas.[6] These antecedents of health create additional barriers beyond geography that must be addressed in order to close the gap in health-related outcomes between rural and urban communities.

Uniquely positioned within rural communities, local public health departments (LHD) are a potential catalyst for addressing the longstanding challenges associated with urban-rural health disparities. While focused on improving the health of populations, LHDs provide a wide array of services focused on assessing health status, mobilizing action to address health-related issues, and ensuring the delivery of important health services in the community. Evidence supporting the link between investments in public health and improved population health outcomes continues to accumulate.[7–9]

Nonetheless, rural LHDs remain subject to the same persistent challenges facing the larger health care delivery system in rural communities. Limited by budget, staffing, and capacity constraints, both the number and type of public health services provided in rural health departments often differs markedly from what is observed among urban LHD counterparts. These differences ultimately limit the ability of rural health departments to respond to national public health and health care policy initiatives. Even so, some examples point to important advances in meeting the health needs of rural communities.

The average life expectancy of an affluent white person in an urban setting exceeds the average life expectancy of a poor black person in a rural setting by 8.3 years.[2]



Key Finding:

Rural health departments have limited capacity for carrying out core public health functions (assessment, policy development, and assurance) and providing essential public health services.

Evidence

- A 2013 study focused on policy activity and policy adoption among urban, suburban, and rural health departments. Using a representative sample of 454 local health departments, the study found clear differences in policy- related activities between rural and urban health departments. Rural health departments were much less likely to engage in policy activity and advocacy than their urban counterparts, particularly in the domains of obesity, the environment, funding for access to care, and land use. The results are worrisome given the notable disparities in these domains.[11]

- A recent study used the 2013 National Profile of Local Health Departments to examine rural and urban differences in the provision of clinical services. As compared to health departments in urban areas, a higher proportion of health departments in rural communities act as a direct service provider, particularly for immunizations, health screenings, and maternal/child health services (e.g., family planning, well-child visits, prenatal care). The study firmly establishes that local health departments in rural areas provide more direct preventive clinical services than do their urban counterparts.[12]

- A South Carolina study examined what happened when local health departments stop providing Early, Periodic, Screening, Diagnosis, and Treatment (EPSDT) services for children. Using 15 years of Medicaid billing data, the study found that children in rural communities depended heavily on local public health departments for EPSDT services and were much less likely to receive them following the cessation of EPSDT services. The study did not observe the same outcome in urban communities. The study raises important questions about the potential impact of rural health departments' discontinuation of clinical services in underserved communities.[13]

Key Finding:

Rural health departments are challenged to pursue accreditation and to meet national accreditation standards.

Evidence

- In a 2008 report, rural health departments perceived that they would face significant barriers in the pursuit of national accreditation with respect to workforce capacity, infrastructure, diversity of the population served, and funding. These factors may have a profound influence on whether an LHD has the motivation and capacity to pursue and meet accreditation standards. As the report notes however, the accreditation process itself may reinforce the importance of core public health functions and serve as an improvement tool for local health departments in rural communities.[14]

- A 2015 qualitative study conducted in Missouri interviewed 11 LHD administrators who identified several barriers to accreditation that, according to rural health departments, differ from those of their urban counterparts. Time, administrative priority, and the perceived value of accreditation emerged as major barriers hindering the efforts of rural local health departments to pursue accreditation.[15]

- Georgia adopted a multicounty health district approach featuring virtual meeting technology intended to enhance the capacity of smaller rural health departments to meet the quality improvement performance measures reflected in accreditation standards. The study found consensus among local health officials that a regionalized approach was an effective tool for enhancing LHDs' ability to meet the standards in a way otherwise impossible if the LHDs had worked toward the standards independently.[16] The study contributes to the growing body of evidence supporting cross-jurisdictional sharing of resources that can increase the effectiveness and efficiency of public health service delivery.

Key Finding:

The ability of rural health departments to develop and cultivate partnerships is important for the integration of public health within the larger health care delivery system.

Evidence

- An in-depth case study compared the effectiveness of and challenges faced by two multicounty regional public health partnerships in nebraska. The majority of the counties included in the partnerships were rural/frontier, with fewer than six persons per square mile. The study found regional partnerships were effective for optimizing involvement of external partners around broad public health issues. Nevertheless, partners' contribution of resources/skills and their administrative ability to combine resources posed a challenge in both regional partnerships. The partnerships cited the reach of the geographic territory served by the partnerships and the workload as significant challenges.[17]

- A 2010 study found that, unlike rural health departments, urban health departments operate with larger budgets and staff, provide a broader range of services, and enjoy more opportunities to develop partnerships with other nongovernmental organizations. Although the opportunities for developing nongovernmental partnerships in rural communities are understandably fewer than in urban areas, rural health departments that forge partnerships have been able to close the service provision gap—to some degree—with urban health departments.[18]

- A 2014 qualitative study conducted in Kansas interviewed 76 administrators, hospital representatives, and key community stakeholders from frontier, rural, and urban settings about community health assessment and improvement planning activities. Administrators in rural communities evidenced less confidence in performing these activities compared to their urban counterparts, noting that they lacked the capacity to carry out such activities. A history of collaborative partnerships among community stakeholders, regardless of rural/urban status, appeared to be associated with increased activity in these domains.[10] The findings highlight the importance of broad, cross-cutting relationships in improving population health—especially in rural communities.

Key Finding:

Rural health departments are challenged to pursue accreditation and to meet national accreditation standards.

Evidence

- Recent studies have found that LHDs in rural communities function with lower staffing levels and rely more heavily on part-time public health workers than do their urban counterparts.[20,21]

- Commentary from a 2010 study focused on the public health workforce training needs of predominantly rural health districts in northeast Tennessee and southwest Virginia. The study noted that approximately half of current public health employees lacked a bachelor's degree.[22] The findings suggest the need for continuing education and workforce development to improve workforce competency in rural health departments.

Conclusion

Collectively, the identified research reflects both opportunities and challenges for rural LHDs and the populations they serve. Opportunities include the accreditation of local health departments, use of evidence-based policies and practices to guide continuous quality improvement, and integration of public health services into multijurisdictional partnerships.[14,15,17,21,22] The lack of time and workforce capacity, the perceived value of participation in partnerships, and absence of leadership motivation emerged as critical themes inhibiting rural health departments' pursuit of opportunities.[14,15,17] Despite the obvious challenges, the research pointed to examples of innovative strategies for responding to national public health policy initiatives.[16,18,19]

Beyond the studies included in the synthesis, the paucity of systems-level public health research targeting rural public health is a concern. While the body of research specific to local public health systems is growing, a very small proportion of the evidence focuses on rural health departments—which comprise approximately 60 percent of all LHDs. Noticeably absent are studies specific to Tribal public health; the Tribal population accounts for a major segment of rural communities. The handful of studies captured in the synthesis tended to be limited methodologically or in scale. Quantitative studies were mostly cross-sectional, with the exception of one longitudinal study that was limited to a single state.[13] Several qualitative studies provided important information but were limited to small geopolitical jurisdictions. A larger scale and scope of systems-level rural public health research is needed—including more data on how rural health departments are responding to national policy shifts.

As the national health policy environment continues to change in response to full implementation of the ACA, LHDs are navigating new territory. Findings from this research synthesis suggest that urban health departments operating in communities with relatively more resources may have the flexibility and capacity to adapt service delivery models in a way that is simply not possible for rural health departments. Such a disparity raises concerns about the ability of rural health departments ultimately to improve the health of the populations they serve. If today's patterns hold, the trajectories of rural and urban health departments will continue to diverge—undermining the potential for rural health departments to improve the health of a historically underserved population.

About the Author

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