Improving Rural Health: Making an Impact in Five Years

Executive Summary

According to a recent Centers for Disease Control and Prevention (CDC) study, rural Americans are at a higher risk of mortality from the top five leading causes of death—heart disease, cancer, unintentional injury, chronic lower respiratory disease, and stroke—compared to their urban counterparts. State health agencies (SHAs) serve an important role in improving the health of rural populations, and are well-positioned to address the behavioral, social, and geographic factors that contribute to rural health disparities. Additionally, the Health Resources and Services Administration (HRSA), CDC, and other federal agencies are supporting states in building healthcare delivery systems in rural communities and implementing clinical and non-clinical interventions that have demonstrated improvements in health outcomes and cost-savings within five years. This issue brief highlights interventions that SHAs are implementing to address the leading causes of death among rural Americans, and emphasizes the importance of multi-sectoral partnerships in improving the health of rural and underserved populations.

Background

Approximately 15 percent of the U.S. population, or 46 million people, live in rural areas.[i,1] They tend to be older, sicker, and poorer than their urban counterparts and are at a higher risk of mortality from the top five leading causes of death—heart disease, cancer, unintentional injury, chronic lower respiratory disease, and stroke—compared to urban Americans.[2] A number of behavioral, social, and geographic factors contribute to these health disparities and the rural-urban mortality gap, including higher rates of tobacco use, lack of physical activity, poorer diets, barriers to accessing healthcare services, lack of specialty care, and limited transportation options.[3,4]

SHAs serve an important role in improving the health of rural Americans. Many SHAs oversee the offices and programs that support access to healthcare in their state's rural communities. For example, state offices of rural health receive funding from HRSA's Federal Office of Rural Health Policy to support outreach and utilization of community partnerships to disseminate federal, state, and local resources; coordinate statewide rural health activities; and provide direct technical assistance to communities to improve health and access to healthcare services.[5] Additionally, HRSA's Bureau of Health Workforce supports state primary care offices, which conduct needs assessments and recruitment and retention activities to address workforce shortages and meet the needs of underserved communities.[6] Through these offices and activities, SHAs are working to develop more integrated healthcare services and reduce health disparities in their state's rural and underserved areas.

Additionally, SHAs are leading or partnering with other stakeholders to deliver healthcare services through innovative means at the community level. For example, many states are using community health workers (CHWs) as frontline public health personnel. As trusted members of the communities in which they serve, CHWs help link health, social, and community services to improve access to quality healthcare, increase cultural competence, and reduce inequities.[7] SHAs are also leveraging innovative technologies such as telehealth to improve access to care, including preventive and specialty care, for

[i] The federal government uses two major definitions of "rural"—one from the U.S. Census Bureau and another from the Office of Management and Budget. In the 2010 Census, 59.5 million people, or 19.3 percent of the population, were considered rural.

rural and underserved areas. By implementing these programs and other delivery system reforms, SHAs are working to increase access to preventive services for vulnerable populations.

In addition to the interventions described above, public health agencies, health systems, state and local government agencies, and other stakeholders are increasingly partnering to focus on improving population health. CDC's Prevention and Population Health Framework states that in order to have the greatest impact on a population's health, public health practitioners must identify strategies that bridge the three buckets of prevention, from traditional clinical care to innovative clinical prevention to community-wide prevention services.[8] Community-wide approaches have the potential to improve the health of everyone living in a community by extending beyond traditional healthcare to address the social, environmental, and behavioral factors that impact a population's health.[9] Additionally, through cross-sector partnerships, expertise in evidence-based public health is being combined with resources in funding, communication vehicles, and community knowledge to address health disparities and improve population health.

SHAs are well-positioned to address the factors that disproportionately affect the health of rural populations. Through partnerships with federal agencies like HRSA and CDC, as well as other key stakeholders at the state and local levels (e.g., healthcare providers, health systems, schools, transportation, and communities), SHAs can target the high-burden health conditions that are impacting people in their communities to reduce rates of preventable death from the five leading causes of death. As mentioned previously, HRSA supports states in building individual healthcare delivery systems in rural communities. Meanwhile, CDC is supporting states in their efforts through the 6|18 and Health Impact in Five Years (HI-5) initiatives. Together, these initiatives focus on clinical and non-clinical evidence-based interventions that span the Prevention and Population Health Framework and have the potential to demonstrate cost-savings and improve health outcomes within five years.

6|18 Initiative

Through the 6|18 Initiative, CDC is partnering with healthcare purchasers, payers, and providers to improve the health of the U.S. population and control healthcare costs.[10] CDC provides partners with rigorous evidence about six high-burden health conditions—tobacco use, high blood pressure, healthcare-associated infections, asthma, unintended pregnancies, and diabetes—along with associated interventions to address these conditions and have the greatest impact on health and cost within five years.[11] Since February 2016, state teams of public health and Medicaid agency leaders have partnered with providers, health systems, and other payers to successfully implement 6|18 interventions related to tobacco, asthma, and unintended pregnancy. Some of the achievements from the state Medicaid and public health teams to date include:

- Developing state plan amendments.
- Assessing baseline coverage and using interventions.
- Implementing billing changes and payment pilots.
- Negotiating contracts with managed care organizations.
- Creating new scope of practice legislative authority.
- Conducting provider and member outreach and education.

The following case studies highlight state efforts that align with the 6|18 initiative and target rural and underserved populations.

Increasing Access to Contraception in Colorado's Frontier Communities
Since 2009, Colorado has been working to increase access to contraception, including long-acting reversible contraception (LARC), as part of its efforts to reduce unintended pregnancies. The Colorado Department of Public Health and Environment (CDPHE) has increased healthcare provider trainings and reduced costs of LARCs. Health First Colorado, which is Colorado's Medicaid program and overseen by the Colorado Department of Health Care Policy and Financing (HCPF), also worked to support LARC provision by maximizing LARC device reimbursements to Medicaid service providers. This collaboration has resulted in an increase in the number of women choosing these methods and a reduction in unintended pregnancies and abortions.[12] Since the start of the LARC project, the birth rate for young women ages 15 to 19 was reduced by more than half, falling 51 percent between 2009 and 2015.[13] Additionally, the abortion rate among women ages 15 to 19 fell by 53 percent and among women ages 20 to 24 by 27 percent between 2009 and 2015.[14]

Despite their successes, HCPF staff learned through meetings with healthcare providers in the state's rural and frontier regions that they were not being adequately reimbursed for providing LARCs due to the low encounter rate payment methodology for rural health clinics (RHCs). HCPF staff also acknowledged that this would create a barrier for rural providers who, even if they received the appropriate training, would not be fully reimbursed for their services and costs related to the expensive LARC devices. As a result, HCPF worked to carve out the costs for LARC devices from the RHC encounter rate payments, which included: (a) working with the Centers for Medicare and Medicaid Services to revise Colorado's Medicaid State Plan for RHCs, and (b) updating state Medicaid rules. Once these changes went into effect, HCPF shared information about the rule change and how to appropriately bill for the services through provider bulletins, working with the Colorado RHCs to identify billing methods for LARC and partnering with CDPHE to educate and spread the word to rural providers about these LARC payment changes. CDPHE is continuing its efforts to increase access to LARC by looking for opportunities to train rural health providers on the appropriate insertion of LARC, patient counseling through motivational interviewing, and troubleshooting difficult cases. Through these efforts and more, Colorado is continuing its work to reach Colorado women who need access to contraceptive services.

Minnesota Implements Culturally-Appropriate Tobacco Cessation Strategies
The Minnesota Department of Health (MDH) supports the implementation of innovative and culturally appropriate strategies to reduce tobacco use and secondhand smoke exposure among American Indian tribal nations in the state. Minnesota's American Indian population uses commercial tobacco at disproportionately higher rates than all Minnesota adults (59% versus 14%), and five of the six leading causes of death among American Indians in the state are related to commercial tobacco use.[15] Under two state statutes (§145.986 and §144.396), MDH provides grant funds to tribal governments to address commercial tobacco use and exposure, reduce the prevalence of tobacco use among youth, and address tobacco-related health disparities.[16,17] Tribal communities use these funds to support community-based tobacco control programs; implement systems changes, like smoke-free policies; and provide educational and cultural awareness activities (e.g., the distinction between commercial and traditional tobacco used for ceremonial purposes, harmful impacts of commercial tobacco use). In addition, as part of the Tribal Statewide Health Improvement Partnership, MDH provides tribal grantees with a menu of

effective, culturally-adapted strategies and tobacco cessation best practices for various settings (e.g., schools, workplaces, and healthcare and community settings) that integrate traditional activities, teachings, and ceremonies.[18,19] There are no outcome data at this point, but MDH plans to evaluate this work through a contract with North Dakota State University's American Indian Public Health Resource Center.[20]

Health Impact in 5 Years Initiative

The Health Impact in 5 Years (HI-5) Initiative highlights non-clinical, evidence-based, community-wide interventions that have shown health improvements within five years and demonstrate cost effectiveness and/or cost savings over the lifespan of a population.[21] Implementing community-wide interventions, in addition to traditional healthcare services, has a positive influence on population-level health outcomes. The HI-5 interventions emphasize the importance of public health partnerships with local and community stakeholders in order to successfully address a number of different factors that disproportionately affect health outcomes in rural areas. Interventions of interest for rural communities include: school-based programs to increase physical activity, Safe Routes to School (SRTS), tobacco control interventions, early childhood education, public transportation system introduction or expansion, and water fluoridation. The following case studies highlight state efforts to implement community-wide interventions targeting rural and underserved areas.

Increasing Physical Activity Through Active Transportation and Safe Routes to School in Ohio

Ohio's Creating Healthy Communities (CHC) program is working to prevent and reduce chronic diseases statewide by implementing cross-sector, evidence-based healthy eating and active living strategies.[22] CHC funds 23 local health departments, more than half of which are rural, to work on policy, systems, and environmental changes to create a culture of health throughout the state. Active transportation has been a key component of many grantees' strategies to increase physical activity in their communities. As a result, CHC staff at the Ohio Department of Health (ODH) have partnered with the Ohio Department of Transportation (ODOT) to support its implementation efforts and model the importance of cross-sector collaborations to connect all people to where they need to go.

Together, ODH and ODOT spearheaded a statewide active transportation plan that lives in Ohio's Strategic Highway Safety Plan and supports priorities in both agencies. Through implementing the active transportation plan, ODOT provided an additional $1.6 million in grants to local communities. Much of this funding went to rural communities to support data collection strategies, develop local active transportation plans, implement infrastructure changes (e.g., putting bike racks on buses), and provide education around safe, active transportation. Additionally, in June 2017, ODH and ODOT hosted the Your Move Ohio Action Institute, dedicated to building momentum and capacity for active transportation in local communities. This three-day training brought together cross-sector teams from rural counties and small- to mid-size cities to develop their own active transportation plans that align with the state active transportation plan's goals and strategies. The action institute provided rural-specific examples of infrastructure best practices, methods for data collection, and opportunities for funding and implementation.

In addition, ODOT's SRTS program has increasingly helped local communities develop school travel plans over the past 10 years. This support has particularly enabled rural communities to qualify to receive funding to participate in SRTS. In addition, ODOT offers the Safe Routes Academy, which provides free

trainings on strategic ways to increase active transportation to school (e.g., walking school buses) and courses on complete streets and active transportation that impact the community at large. The recent designation of Regional Transportation Planning Organizations will also enhance active transportation planning in rural communities throughout the state. Moving forward, ODH and ODOT are continuing to partner to support rural communities in ensuring safe mobility for their residents. Partnerships with transit are especially important because rural transit systems are becoming a critical component to helping all people reach their destinations.

Wisconsin Early Childhood Obesity Prevention Initiative

Early care and education (ECE) settings are important environments for promoting physical activity and healthy eating to help prevent childhood obesity. The Wisconsin Early Childhood Obesity Prevention Initiative's (WECOPI) mission is to develop and implement a collaborative, statewide, multi-strategy, evidence-based initiative to enhance nutrition and physical activity among 0- to 5-year-olds and their families by engaging providers, families, community partners, and other stakeholders.

In 2008, WECOPI, led by the Wisconsin Department of Health Services' (WDHS) Nutrition, Physical Activity, and Obesity Program, began its work in early childhood with a comprehensive background assessment of the existing ECE system. It then used the assessment results to develop Active Early, WECOPI's flagship toolkit and training for physical activity in ECE. WDHS leveraged funds from CDC's Communities Putting Prevention to Work program to pilot Active Early. Its goals were to: (1) Increase physical activity among 2- to 5-year-olds by promoting local-level, evidence-based interventions, and (2) use a statewide approach to educate key decisionmakers on the benefits of offering at least 120 minutes of daily structured and unstructured physical activity for children in ECE settings.

An evaluation of the project's 20 pilot sites, 13 of which were rural, demonstrated that the total physical activity environment improved over 12 months.[23] It also found that ECE providers were able to dedicate time for physical activity within their daily activities, which showed that implementing 120 minutes of physical activity each day in ECE settings is both feasible and sustainable. WECOPI also developed Healthy Bites, a companion training and toolkit focused on nutrition, along a similar timeline with support from a U.S. Department of Agriculture Child and Adult Care Food Program wellness grant.

WECOPI has continued its outreach to ECE providers around the state. By leveraging funding and support from both internal and external partners, WECOPI has most recently targeted ECE providers in Wisconsin's rural northwest and southwest corners to offer training and technical assistance on Active Early and Healthy Bites, respectively. Providers sometimes face unique challenges in these communities. For example, they often request paper copies of resources and project evaluations, and struggle to use online training offerings due to unreliable Internet access and the digital divide. Having the resources to provide in-person support has helped ECE providers enhance their own programs while also focusing on family engagement related to physical activity and nutrition. WECOPI is aiming to sustain and expand its efforts to other areas of the state to ensure that all types of ECE providers use Active Early and Healthy Bites resources and best practices.

Conclusion

Across the country, SHAs are partnering with federal agencies and multi-sectoral stakeholders at the state and local levels to address the social determinants of health by implementing clinical and non-

clinical evidence-based interventions. By addressing the factors that are leading to disproportionately higher rates of death among rural populations, SHAs are working to control healthcare costs and positively influence population-level health outcomes within a five-year time period.

Rural Health Resources for State Health Agencies

- **CDC Rural Health** – *This webpage provides an overview of rural health basics and shares resources and success stories that highlight interventions for improving health in rural America.* https://www.cdc.gov/ruralhealth/
- **HRSA Federal Office of Rural Health Policy (FORHP)** – *This webpage provides links to information on FORHP-funded programs, including rural hospital, rural community, telehealth, and rural health research programs.* https://www.hrsa.gov/ruralhealth/
- **The National Advisory Committee on Rural Health and Human Services Publications** – *This webpage provides links to publications from the National Advisory Committee on Rural Health and Human Services, including policy briefs, reports, recommendations, and resource papers.* https://www.hrsa.gov/advisorycommittees/rural/publications/index.html
- **National Organization of State Offices of Rural Health** – *This webpage houses policy documents and educational resources that support the missions of state offices of rural health.* https://nosorh.org/
- **National Rural Health Resource Center** – *This webpage features webinars, presentations, articles, and toolkits developed by trusted industry leaders to guide and support rural health stakeholders.* https://www.ruralcenter.org/
- **State Offices of Rural Health Fact Sheet** – *This fact sheet provides an overview of state offices of rural health, including their goals, the type of technical assistance they provide, and opportunities for state health agencies to partner with them.* http://www.astho.org/Health-Systems-Transformation/State-Offices-of-Rural-Health-Fact-Sheet/
- **Rural Health Information Hub** – *This national clearinghouse for rural health issues includes information, opportunities, and resources that support healthcare and population health in rural communities.* https://www.ruralhealthinfo.org/
- **Rural Health Research Gateway** – *This webpage provides easy access to timely research conducted by FORHP-funded rural health research centers.* https://www.ruralhealthresearch.org/

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[1] Moy E, Garcia MC, Bastian B, *et al*. "Leading causes of death in nonmetropolitan and metropolitan areas – United States, 1999-2014." *MMWR Surveill Summ*. 2017. 66(No. SS-1):1-8. Available at https://www.cdc.gov/mmwr/volumes/66/ss/ss6601a1.htm?s_cid=ss6601a1_w. Accessed 6-5-2017.
[2] Garcia MC, Faul M, Massetti G, *et al*. "Reducing potentially excess deaths from the five leading causes of death in the rural United States." *MMWR Surveill Summ*. 2017. 66(No. SS-2):1-7. Available at https://www.cdc.gov/mmwr/volumes/66/ss/ss6602a1.htm. Accessed 6-5-2017.
[3] Moy E, Garcia MC, Bastian B, *et al*. "Leading causes of death in nonmetropolitan and metropolitan areas – United States, 1999-2014." *MMWR Surveill Summ*. 2017. 66(No. SS-1):1-8. Available at https://www.cdc.gov/mmwr/volumes/66/ss/ss6601a1.htm?s_cid=ss6601a1_w. Accessed 6-5-2017.
[4] Garcia MC, Faul M, Massetti G, *et al*. "Reducing potentially excess deaths from the five leading causes of death in the rural United States." *MMWR Surveill Summ*. 2017. 66(No. SS-2):1-7. Available at https://www.cdc.gov/mmwr/volumes/66/ss/ss6602a1.htm. Accessed 6-5-2017.
[5] National Organization of State Offices of Rural Health. "State Offices of Rural Health." Available at http://www.astho.org/Health-Systems-Transformation/State-Offices-of-Rural-Health-Fact-Sheet/. Accesses 6-5-2017.
[6] ASTHO. "Primary Care Office Manual." Available at http://www.astho.org/uploadedFiles/ASTHO%20Primary%20Care%20Office%20Manual-Final%20Web.pdf. Accessed 6-5-2017.
[7] ASTHO. "Community Health Worker Certification and Financing." Available at http://www.astho.org/Community-Health-Workers/CHW-Certification-Financing/. Accessed 6-5-2017.
[8] Auerbach J. "The 3 buckets of prevention." *J Public Health Manag Pract*. 2016. 22(3):215-218. Available at http://journals.lww.com/jphmp/Citation/2016/05000/The_3_Buckets_of_Prevention.1.aspx. Accessed 6-5-2017.
[9] CDC. "Health impact in 5 years." Available at https://www.cdc.gov/policy/hst/hi5/. Accessed 6-5-2017.
[10] CDC. "The 6|18 initiative: Accelerating evidence into action." Available at https://www.cdc.gov/sixeighteen/. Accessed 6-5-2017.
[11] *Ibid*.
[12] Colorado Department of Public Health and Environment. "Reducing unintended pregnancies in Colorado." Available at https://www.colorado.gov/pacific/sites/default/files/HPF_FP_UP-Reducing-Unintended-Pregnancies-in-CO.pdf. Accessed 6-5-2017.
[13] Author's email correspondence with Colorado Department of Public Health and Environment on July 28, 2017.
[14] *Ibid*.
[15] Minnesota Department of Health. "Guidance Document for Tribal Grantees." Available at http://www.health.state.mn.us/healthreform/ship/docs/ship4/TribalGuidance.pdf. Accessed 6-5-2017.
[16] Minnesota Department of Health. "Tribal Grant Programs." Available at http://www.health.state.mn.us/divs/oshii/ship/pdfs/tribal.pdf. Accessed 6-5-2017.
[17] Minnesota Department of Health. "Guidance Document for Tribal Grantees." Available at http://www.health.state.mn.us/healthreform/ship/docs/ship4/TribalGuidance.pdf. Accessed 6-5-2017.
[18] Minnesota Department of Health. "Tribal Grant Programs." Available at http://www.health.state.mn.us/divs/oshii/ship/pdfs/tribal.pdf. Accessed 6-5-2017.
[19] Minnesota Department of Health. "Guidance Document for Tribal Grantees." Available at http://www.health.state.mn.us/healthreform/ship/docs/ship4/TribalGuidance.pdf. Accessed 6-5-2017.
[20] Author's email correspondence with Minnesota Department of Health on July 28, 2017.
[21] CDC. "Health impact in 5 years." Available at https://www.cdc.gov/policy/hst/hi5/. Accessed 6-5-2017.
[22] Ohio Department of Health. "Creating Healthy Communities." Available at http://www.odh.ohio.gov/CHC. Accessed 6-5-2017.
[23] LaRowe TL, Tomayko EJ, Meinen, AM, *et al*. "Active Early: one-year policy intervention to increase physical activity among early care and education programs in Wisconsin." Available at: https://www.ncbi.nlm.nih.gov/pubmed/27439770. Accessed 6-5-2017.