POLICY BRIEF
November 2022

UNIVERSITY OF MINNESOTA
RURAL HEALTH
RESEARCH CENTER

Who Will Care for Rural Older Adults? Measuring the Direct Care Workforce in Rural Areas

Janette Dill, PhD, MPH
Carrie Henning-Smith, PhD, MPH, MSW
Rongxuan Zhu, MGIS
Elizabeth Vomacka, MPH

Key Findings

- **We find that there are, on average, 32.9 home health aides per 1,000 older adults (age 65+) in rural areas and 50.4 home health aides per 1,000 older adults in urban areas.**
- **There are, on average, 20.9 nursing assistants per 1,000 older adults in rural areas and 25.3 nursing assistants per 1,000 older adults in urban areas.**
- **These findings indicate that the ratio of home health aides in urban areas relative to the older adult population is about 34.7% larger than the ratio in rural areas, and the ratio of nursing assistants in urban areas is 17.4% times larger than the ratio in rural areas.**

rhrc.umn.edu

Purpose

Direct care workers are an essential part of supporting an aging rural population, particularly as more individuals favor aging in place over nursing homes and require in-home assistance with activities of daily living. Aging in place generally refers to older adults remaining in their homes and communities as they age, rather than relocating or moving into an institutional setting. The purpose of this policy brief is to examine existing disparities in the supply of home health aides and nursing assistants in rural areas compared to urban areas. Using the Occupational Employment and Wage Statistics (OEWS) data, we estimate the ratio of home health aides and nursing assistants relative to the population of adults (age 65+) across rural and urban areas in the US.

Background and Policy Context

More than 1 in 5 older Americans live in rural areas, many concentrated in states where more than half of their older population resides in rural areas.[1] A recent report shows that 18.1% of the rural population was 65 years and older compared to 14.3% in urban areas.[2] Rural older adults (39.0%) have higher rates of disability as compared to urban adults (34.7%), and rural older adults are more likely to have had a heart attack (11.8%) or stroke (8.3%) compared to urban older adults (heart attack 8.6%; stroke 5.8%).[2] The poorer health that rural older adults experience may mean that they need more long-term services and supports (LTSS) as they age.[3–6] The demographics of rural communities illustrate the need for a large enough supply of direct care workers to meet current and future health care needs; however, there is substantial evidence that low supply of direct care workers (DCW) is already occurring in LTSS.[7–9]

Workforce supply issues and chronic high rates of turnover may lead to reduced access and lower quality of care for aging US adults, although there is a shortage of research on DCW supply in rural compared to urban areas. A recent qualitative analysis, which interviewed key

stakeholders including Medicaid administrators, service agency managers, and patient advocates from 14 states cited greater health care staffing shortages in rural compared to urban areas as an important factor limiting rural home and community-based service access.[10] A 2017 report from the University of Washington Rural Health Research Center states that rural home health care agencies from all four US Census regions reported difficulty in recruiting and retaining home health care aides and personal care assistants, due to being unable to offer comparable wages compared to urban agencies – the burden of additional travel time for staff was also cited as an occupational barrier for rural employees.[11] These studies all demonstrate an urgent need for greater investment in the rural direct care workforce, particularly as the US health care system transitions away from nursing homes and toward home and community-based models of care. Institutional care within LTSS largely refers to nursing home care; nursing homes are institutional facilities licensed by the state that offer 24-hour room and board, supervision and nursing care. HCBC refers to services provided in a wide array of noninstitutional settings, from recipients' own homes to various congregate living arrangements.[12] Yet, more information is needed on rural/urban differences in the DCW supply relative to the older adult population in order to inform targeted policy interventions.

Approach

The data used in this study are the 2021 Occupational Employment and Wage Statistics (OEWS) data available through the Bureau of Labor Statistics (BLS). The OEWS program produces occupational estimates for the nation as a whole, by state, and by metropolitan or nonmetropolitan area. The metropolitan and nonmetropolitan areas designated within the OEWS are defined by the BLS and include clusters of counties; the BLS definitions of metropolitan and nonmetropolitan areas can be found here: https://www.bls.gov/oes/current/msa_def.htm. In this brief, we refer to metropolitan and nonmetropolitan areas as urban and rural areas, respectively. We also use the 2020-2021 Area Health Resource File (AHRF) to estimate the size of the older adult populations (age 65+).

The primary analyses reported in this brief include calculating the ratios of home health aides and nursing assistants relative to the population of adults across urban and rural areas in the US. We calculated the ratios by dividing the number of home health aides or nursing assistants in metropolitan or nonmetropolitan areas available in the OEWS by the number of older adults in metropolitan or nonmetropolitan areas.

In addition to highlighting differences between rural and urban areas, we present the ratios of home health aides and nursing assistants to the older adult population by US major Census regions, including: New England (1), Middle Atlantic (2), East North Central (3), West North Central (4), South Atlantic (5), East South Central (6), West South Central (7), Mountain (8), and Pacific (9). We focus on Census regions because this level of geographic measurement allows us to describe regional differences in the supply of home health aide and nursing assistants.

Results

We find that there are, on average, 32.8 home health aides per 1,000 older adults (age 65+) in rural areas and 50.4 home health aides per 1,000 older adults in urban areas (shown in Table 1). These findings indicate that the supply of home health aides in urban areas is about 34.7% larger than the supply in rural areas relative to the older adult population. There are, on average, 20.9 nursing assistants per 1,000 older adults in rural areas and 25.3 nursing assistants per 1,000 older adults in urban areas. The supply of nursing assistants in urban areas is 17.4% times larger than the supply in rural areas.

In Table 2, we describe regional variation across US Census regions for home health aides and nursing assistants. For each region, we list the ratio of home health aides per 1,000 older adults and nursing assistants per

Table 1. Ratios of Direct Care Workers Relative to the Older Adult Population in Rural and Urban Areas

	Rural areas	Urban areas
Home health aides per 1,000 older adults	32.8 (n=133)	50.4 (n=395)
Nursing assistants per 1,000 older adults	20.9 (n=134)	25.3 (n=389)

Source: OEWS and AHRF

Table 2. Ratios of Direct Care Workers per 1000 Older Adults Population in Rural and Urban Areas by US Census Region

		Home health aides		Nursing assistants	
New England	Rural	14.2	(n=9)	10.2	(n=9)
	Urban	26.6	(n=21)	13.1	(n=21)
Middle Atlantic	Rural	55.7	(n=6)	18.3	(n=6)
	Urban	60.9	(n=34)	26.7	(n=35)
East North Central	Rural	30.2	(n=19)	22.2	(n=19)
	Urban	47.2	(n=58)	27.7	(n=57)
West North Central	Rural	40.9	(n=20)	33.5	(n=20)
	Urban	61.1	(n=33)	45.1	(n=33)
South Atlantic	Rural	26.2	(n=20)	19.5	(n=20)
	Urban	27.4	(n=83)	24.7	(n=83)
East South Central	Rural	22.0	(n=16)	21.0	(n=16)
	Urban	31.9	(n=29)	25.6	(n=29)
West South Central	Rural	43.3	(n=17)	22.8	(n=17)
	Urban	77.4	(n=43)	25.3	(n=42)
Mountain	Rural	34.4	(n=16)	17.3	(n=16)
	Urban	53.0	(n=37)	23.0	(n=37)
Pacific	Rural	38.4	(n=5)	11.4	(n=10)
	Urban	80.4	(n=49)	17.3	(n=48)

Source: May 2021 OEWS and AHRF

1,000 older adults in rural and urban areas, along with the sample size for each area. We find that rural areas have lower average ratios of both home health aides and nursing assistants across regions.

Home health aides

In Figure 1, we present a scatterplot of the ratios of home health aides per 1,000 older adults for rural and urban areas, distributed by US Census region. The scatterplot demonstrates that rural areas have substantially lower ratios compared to urban areas, and this is consistent across the regional distribution.

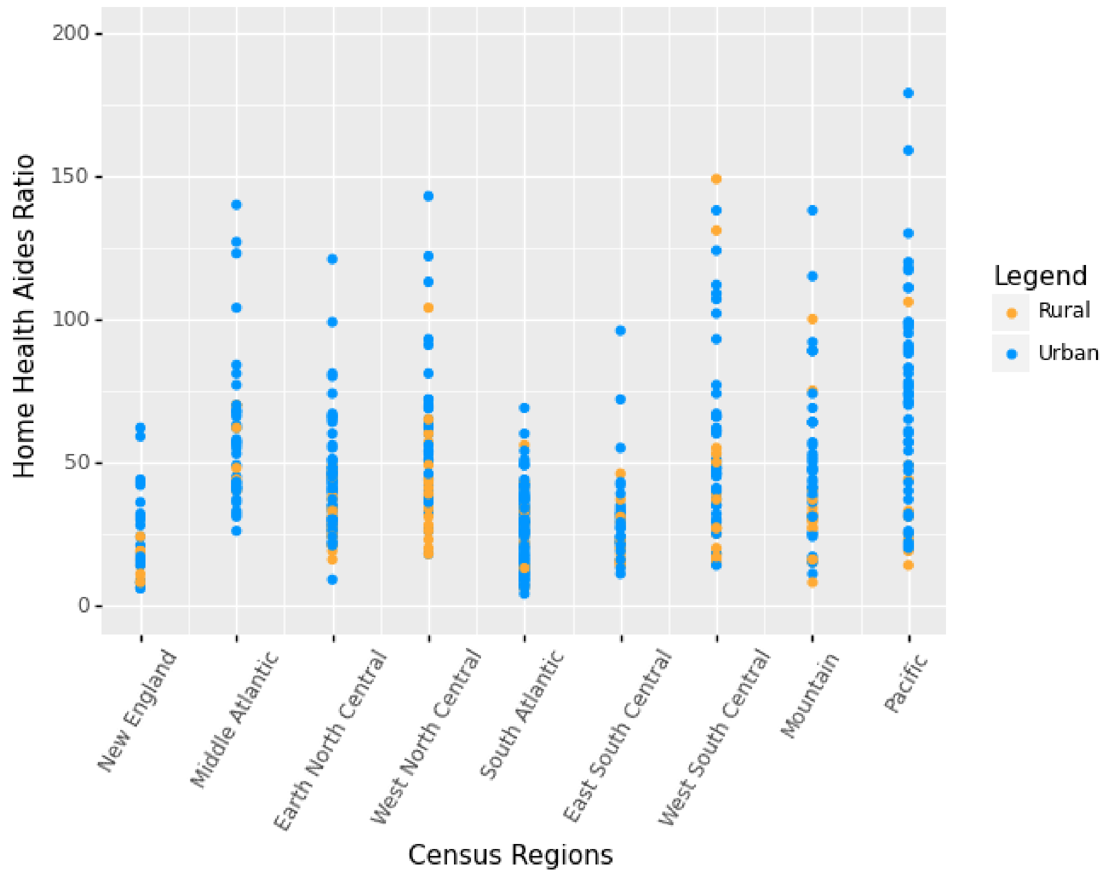
There is also significant regional variation in the ratio of home health aides to the older adult population. Ratios of home health aides to older adults in both rural and urban areas are the lowest in New England, the South Atlantic, and the East South Central regions. The largest disparities between rural and urban areas in the ratio of home health aides to older adults, on average, are found in the West South Central region and the Pacific regions (also see Table 2), although notably the sample size of rural areas in the Pacific region is small (n=5 rural areas).

Nursing assistants

In Figure 2, we present a scatterplot of the ratios of nursing assistants per 1,000 older adults for rural and urban areas, distributed by US Census region. The scatterplot demonstrates that rural areas have lower ratios compared to urban areas, and this is also consistent across the regional distribution.

Ratios of nursing assistants to older adults in both rural and urban areas are the lowest in New England and the Pacific. In general, ratios of nursing assistants relative to the older adult population are far more consistent across regions than the home health aide workforce (described above), but the West North Central does stand out as having higher ratios of nursing assistants to older adults in both rural and urban areas.

Figure 1. Ratios of Home Health Aides per 1,000 Older Adults



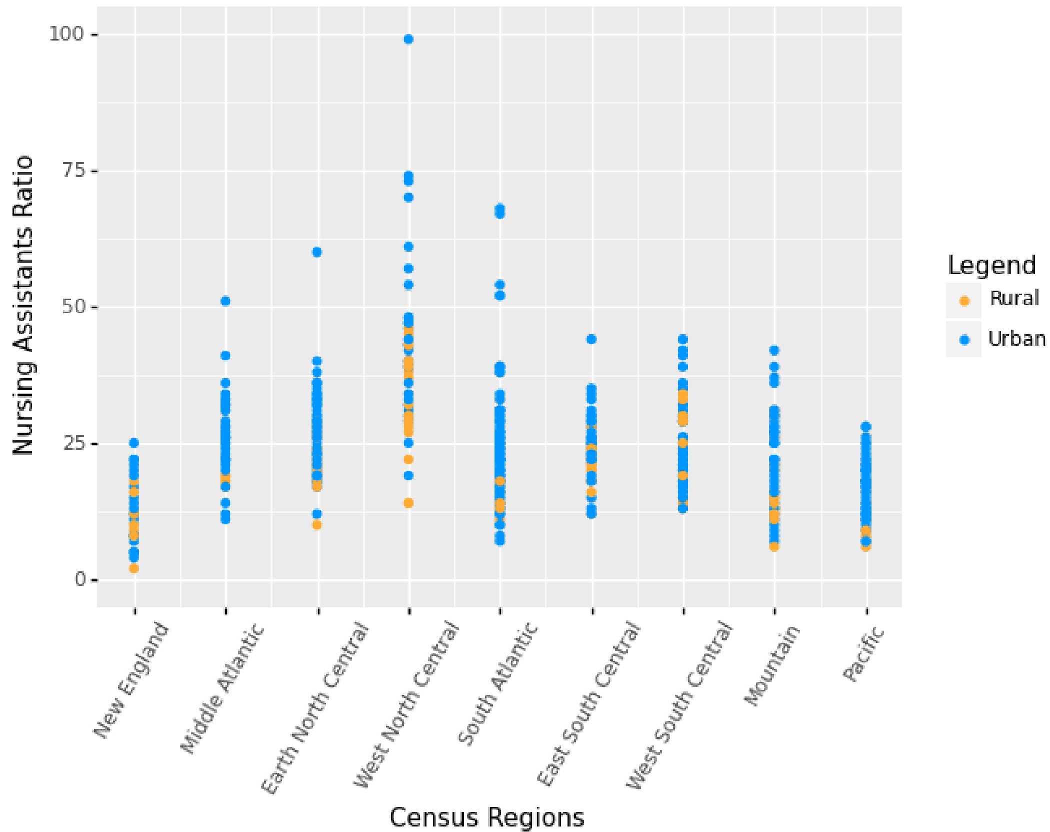
Discussion and Implications

The goal of this study was to measure the supply of the direct care workforce relative to the older adult population in rural and urban areas. Our findings indicate that the supply of home health aides and nursing assistants in rural areas relative to the older adult population is far lower than in urban areas. The disparities in supply between rural and urban areas are likely due to many factors, including a lower level of available younger workers to fill direct care positions, lower wages and overall job quality in rural areas, and a lack of long-term care infrastructure to support a direct care workforce.

We also found substantial regional variation in the ratio of home health aides and nursing assistants relative to the older adult population in both rural and urban areas. While we do not directly measure the causes of the regional variation in these ratios, we can provide some potential explanations. For example, New England has consistently lower ratios of home health aides and nursing assistants relative to the older adult population as compared to other regions of the country. New England has among the oldest states in the county, including Maine, Vermont, New Hampshire, Rhode Island, and Connecticut, and it is likely that population demographics are driving their direct workforce supply.[13] We also find that the South Atlantic and the East South Central regions have very low ratios of home health aides relative to their older adult populations. States in these regions have been less likely to expand Medicaid, which may limit some residents' access to home and community-based care services and constrain the home health aide workforce.

Given the demonstrated need for a robust and well-trained direct care workforce to help care for the aging rural population in the US,[10,14,15] it is vital that policymakers and employers improve infrastructure around home and community-based services and long-term care through targeted investment in the direct care workforce. Many states have already started to imple-

Figure 2. Ratios of Nursing Assistants per 1,000 Older Adults



ment programs which strive to improve this effect. Programs that provide free CNA training, job placement, and a retention bonus for workers such as Wisconsin's WisCaregivers program can remove financial barriers that prevent qualified individuals from becoming direct care workers.[16]

Other states, such as Colorado and North Carolina, have used American Rescue Plan Funds to increase hourly wages or provide hazard pay for direct care workers, and Colorado is working to make this wage increase permanent.[17,18] In addition to increasing DCW wages, it is important to improve critical employment benefits such as health insurance and paid time off. Virginia implemented the Paid Sick Leave for Home Health Workers Act in 2021, which provides paid time off for direct care workers to seek medical treatment for themselves or their families.[19]

Improving the quality and amount of training received by the direct care workforce is also an incredibly important step, as there is considerable variation in the quality and duration of DCW training by state. In fact, states with CNA training requirements which exceed the federal minimum amount have improved patient outcomes and higher CNA job satisfaction.[20]

One potential barrier for rural organizations attempting to get financial resources to support their direct care workforce is the ease and ability to apply for funds. Many rural organizations do not have the internal capacity to have someone apply for grant funds, especially if their organization is already short staffed and administrative staff are pulled to provide direct care supports.[17] So even if federal and state funders want to prioritize rural financial supports for the rural direct care workforce, not having someone with the capacity to apply for funds is a barrier, especially in the midst of a public health crisis.

It is interesting to note the differences in what workforce support efforts are eligible under the CARES Act and the COVID-19 Health Care Response Grant, which was a combination of funds between the CARES Act and additional funding from the State of Minnesota. The distribution of CARES Act funds in Illinois only notes hazard pay as a workforce expense that organizations could have to support their direct care workers. In contrast, since Minnesota combined CARES Act fund-

ing with supplemental funds from the Minnesota legislature, this changed the scope of the workforce expenses eligible to be covered. These differences in workforce supports that are eligible expenses through these funding streams is worth noting as it warrants more comprehensive funding opportunities in the future that cover a multitude of retention and recruitment strategies to support direct care workers, especially in rural areas.

Conclusion

The LTSS direct care workforce is in a state of crisis,[21,22] and this crisis is especially acute in rural areas. This policy brief demonstrates that rural residents in particular are at risk of lacking access to home and community-based care because of supply of home health aides may not be large enough to support the care needs of the older adult population. Most older adults report that they would like to age in place, or receive care in their home as they need more assistance with tasks of daily living.[15] However, access to home and community-based care will not be an option for all rural older adults unless policies are put into place to support LTSS in rural areas and the direct care workforce.

References

1. US Census Bureau. *The Older Population in Rural America*: 2012-2016.; 2019. Accessed January 4, 2021. https://www.census.gov/library/publications/2019/acs/acs-41.html

2. Tuttle C, Tanem J, Lahr M, Schroeder J, Tuttle M, Henning-Smith C. *Rural-Urban Differences among Older Adults*. University of Minnesota Rural Health Research Center; 2020. https://rhrc.umn.edu/wp-content/uploads/2020/08/Rural-Urban-Older-Adults_Chartbook_Final_8.25.20.pdf

3. 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(2):1-7. doi:10.15585/mmwr.ss6602a1

4. Johnson R, Toohey D, Wiener JM. Meeting the Long-Term Care Needs of the Baby Boomers: How Changing Families Will Affect Paid Helpers and Institutions. Accessed December 15, 2021. https://www.policyarchive.org/handle/10207/21439

5. Anderson TJ, Saman DM, Lipsky MS, Lutfiyya MN. A cross-sectional study on health differences between rural and non-rural U.S. counties using the County Health Rankings. *BMC Health Serv Res*. 2015;15. doi:10.1186/s12913-015-1053-3

6. Rural-Urban Differences among Older Adults. The University of Minnesota Rural Health Research Center. Accessed April 25, 2022. http://rhrc.umn.edu/publication/rural-urban-differences-among-older-adults/

7. Stone RI. Developing a Quality Direct Care Workforce: Searching for Solutions. *Public Policy & Aging Report*. 2017;27(3):96-100. doi:10.1093/ppar/prx015

8. Graham J. *Severe Shortage Of Home Health Workers Robs Thousands Of Proper Care*. Kaiser Health News. Published April 26, 2017. Accessed March 15, 2020. https://khn.org/news/severe-shortage-of-home-health-workers-robs-thousands-of-proper-care/

9. United States Department of Labor, Bureau of Labor Statistics. Employment Projections: Fastest Growing Occupations.; 2019. https://www.bls.gov/emp/tables/fastest-growing-occupations.htm

10. Siconolfi D, Shih RA, Friedman EM, et al. Rural-Urban Disparities in Access to Home- and Community-Based Services and Supports: Stakeholder Perspectives From 14 States. *Journal of the American Medical Directors Association*. 2019;20(4):503-508.e1. doi:10.1016/j.jamda.2019.01.120

11. Skillman SM, Patterson DG, Couthard C, Mroz TM. Access to Rural Home Health Services: Views from the Field. WWAMI Rural Health Research Center; 2016:19. Accessed December 15, 2021. https://www.ruralhealthresearch.org/publications/1003

12. Agency for Healthcare Quality and Research, Evidence-based Practice Centers. Long-Term Care for Older Adults: A Comparative Effectiveness Review of Institutional versus Home and Community-based Care | Effective Health Care (EHC) Program. Published 2022. Accessed June 13, 2022. https://effectivehealthcare.ahrq.gov/products/long-term-care-adults/research-protocol

13. Federal Reserve Bank of Boston. *Aging and Declining Populations in Northern New England: Is There a Role for Immigration?*; 2019. Accessed March 22, 2022. https://www.bostonfed.org/publications/new-england-public-policy-center-regional-briefs/2019/aging-and-declining-populations-in-northern-new-england.aspx

14. Galewitz P. Desperate for Home Care, Seniors Often Wait Months With Workers in Short Supply. Kaiser Health News. Published June 30, 2021. Accessed October 24, 2021. https://khn.org/news/article/desperate-for-home-care-seniors-often-wait-months-with-workers-in-short-supply/

15. Poo A jen, Berger I. Opinion | Many of Us Want to Age at Home. But That Option Is Fading Fast. The New York Times. https://www.nytimes.com/2022/03/30/opinion/home-care-aides-industry.html. Published March 30, 2022. Accessed April 11, 2022.

16. WisCaregiver Career Program. Wisconsin Department of Health Services. Published April 3, 2017. Accessed March 13, 2022. https://www.dhs.wisconsin.gov/caregiver-career/index.htm

17. NC Spending Plan for the Implementation of the American Rescue Plan Act of 2021, Section 9817 - July 12, 2021 | NC Medicaid. Accessed April 28, 2022. https://medicaid.ncdhhs.gov/nc-spending-plan-implementation-american-

rescue-plan-act-2021-section-9817-july-12-2021

18. Colorado Governor Jared Polis. JBC Approves Polis-Primavera Administration Plan to Raise Minimum Wage for Colorado's Direct Care Workers to $15/hour. Published 2021. Accessed April 28, 2022. https://www.colorado.gov/governor/news/6316-jbc-approves-polis-primavera-administration-plan-raise-minimum-wage-colorados-direct-care

19. Guzman E. Article *2.1: Paid Sick Leave.*; 2021. Accessed April 28, 2022. https://lis.virginia.gov/cgi-bin/legp604.exe?212+ful+CHAP0449

20. Han K, Trinkoff AM, Storr CL, Lerner N, Johantgen M, Gartrell K. Associations between state regulations, training length, perceived quality and job satisfaction among certified nursing assistants: Cross-sectional secondary data analysis. *International Journal of Nursing Studies*. 2014;51(8):1135-1141. doi:10.1016/j.ijnurstu.2013.12.008

21. Stone RI, Wiener JM. Who Will Care For Us? Addressing the Long-Term Care Workforce Crisis. Urban Institute. Published June 4, 2016. Accessed October 24, 2021. https://www.urban.org/research/publication/who-will-care-us-addressing-long-term-care-workforce-crisis

22. Campbell S, Drake ADR, Espinoza R, Scales K. *Caring for the Future: The Power and Potential of America's Direct Care Workforce.* PHI; 2021:126. Accessed December 15, 2021. http://phinational.org/caringforthefuture/

Suggested Citation

Dill J, Henning-Smith C, Zhu R, and Vomacka E. Who Will Care for Rural Older Adults? Measuring the Direct Care Workforce in Rural Areas. *UMN Rural Health Research Center Policy Brief.* November 2022. https://rhrc.umn.edu/publication/who-will-care-for-rural-older-adults-measuring-the-direct-care-workforce-in-rural-areas/

Rural Health Research & Policy Centers

Funded by the Federal Office of Rural Health Policy

www.ruralhealthresearch.org

Support for this study was provided by the Federal Office of Rural Health Policy, Health Resources and Services Administration, Cooperative Agreement U1CRH03717-13-00. The information, conclusions, and opinions expressed are those of the authors, and no endorsement by FORHP, HRSA, or HHS is intended or should be inferred.

For more information, contact Carrie Henning-Smith (henn0329@umn.edu)

University of Minnesota Rural Health Research Center
Division of Health Policy and Management, School of Public Health
2221 University Avenue SE, #350 Minneapolis, MN, 55414