

## Two National-Level Organizations Supporting Rural Postpartum Health Across the United States

Mariana Tuttle, MPH

Phoebe Chastain, MPH

Julia D. Interrante, PhD, MPH

Carrie Henning-Smith, PhD, MPH, MSW

Katy Backes Kozhimannil, PhD, MPA

### Key Findings

- **Support during the postpartum period is critical for the mental and physical health of rural postpartum parents and families and is essential for efforts to reduce maternal mortality.**
- **This case study series profiles two national organizations doing unique work in the area of rural postpartum health: MomMoodBooster and Pack Health.**
- **Both organizations aim to improve postpartum mental health through online content delivery combined with peer coaching support.**
- **National-level interventions that combine virtual platforms with person-to-person support are examples of tools that can be used to address postpartum health in rural communities.**

### Purpose

The purpose of this case study series is to highlight national-level organizations working in innovative ways to improve postpartum health for rural residents across the United States. These may serve as examples to others considering this work.

### Background and Policy Context

In 2021, nearly 500,000 births occurred in rural communities in the United States.<sup>1</sup> The postpartum period that follows childbirth involves many physical, mental, and emotional changes, and can pose challenges to the health and well-being of the birthing person. These challenges may be more complicated to address in rural areas, where access to healthcare services is limited.<sup>2</sup>

On the extreme end, difficulties in the postpartum period can lead to maternal deaths. Maternal deaths in the United States have increased by 40% in the last decade, and half of all maternal mortality occurs in the year following childbirth.<sup>3</sup> Approximately 60% of these deaths are considered preventable.<sup>4</sup> Nearly 60% of maternal deaths are due to obstetric-related causes, while more than one in five deaths are drug-related or due to suicide or homicide.<sup>5</sup> Disparities in the rate of maternal death and the causes of death exist by race and ethnicity as well as by rurality.<sup>6,7</sup> Limited access to care in the postpartum period is frequently cited as a contributor to maternal deaths and other mental and physical health complications that occur in the year after childbirth.<sup>8</sup>

Even when the result is not death or serious illness, many common postpartum challenges are not addressed by standard postpartum care protocols.<sup>9</sup> Improving the postpartum experience in rural communities goes beyond preventing maternal death or serious illness. The well-known financial and workforce challenges that hinder access to obstetric care also affect postpartum rural residents. As such, improving postpartum health requires financing sustained access to care after childbirth, and expanding access to a range of mental and physical perinatal health services, in order to improve health and well-being for postpartum parents and families in rural communities.<sup>10</sup>

Residents of rural U.S. communities already experience access to care challenges during pregnancy, birth, and the postpartum period. As of 2018, only 40% of rural counties have hospital-based obstetric units.<sup>11</sup> As a result, rural pregnant patients have to travel farther for care, have less frequent prenatal care prior to delivery, and have reduced access to care after childbirth.<sup>12</sup> These challenges are especially pronounced for those who are Black, Indigenous, and/or low-income individuals.<sup>12</sup> Beyond health care, rural residents also face unique challenges in the postpartum period related to transportation, limited access to childcare, and reduced access to paid leave.<sup>13–15</sup> Understanding the health needs and access challenges that rural postpartum patients face is essential for improving postpartum health and for reducing postpartum morbidity and mortality in rural communities. In addition, it is important to understand and describe the existing supports available to rural postpartum parents and families in their communities.

The purpose of this case study series is to highlight national organizations working to improve postpartum health in rural communities across the United States. These may serve as examples to others considering this work.

## Approach

We conducted an environmental scan of existing programs online for birthing parents and families in the postpartum period in rural communities. Using search terms “postpartum support + rural + [state name]” for each of the 50 states, we identified 48 programs across 34 states. We categorized identified programs by the description of services provided, including the scope of services and innovative methods used to address postpartum concerns, as well as geographic, racial, and ethnic diversity of the surrounding community. We contacted the 18 most comprehensive programs by email, and nine responded. In an attempt to ensure inclusion of racially diverse rural communities, we also used a list of rural counties where a majority of the population was non-Hispanic Black, Hispanic, or Indigenous, and contacted county public health or healthcare organizations to inquire about programs available locally. This process resulted in one additional case study, for a total of 10. Two case studies describe national-level programs (presented here) and eight were local programs (presented in a companion policy brief).

Primary data were collected through key informant interviews conducted via Zoom between October 2022

and February 2023. Interviews lasted approximately 35 minutes, and were structured based on a survey instrument of 10 questions, developed collaboratively by the research team. Two members of the research team conducted these interviews. We analyzed each case study individually in order to identify key themes, including challenges and opportunities related to improving access to postpartum support for rural parents.

## Case #1: MomMoodBooster at the VA

### *Organizational overview*

MomMoodBooster is an online, empirically validated intervention designed to help reduce symptoms of perinatal depression.<sup>16–19</sup> A veteran-specific customized version of MomMoodBooster is currently being offered to rural pregnant and postpartum Veterans across the United States via the MomMoodBooster program. This initiative is funded by the Veterans Health Affairs Office of Rural Health, Rural Health Resource Center – Iowa City.<sup>20</sup> We spoke with Stephanie Nettleton, Project Coordinator for this effort, to understand the program history, offerings, and challenges and opportunities in supporting pregnant and postpartum Veterans.

MomMoodBooster is available to both rural and urban Veterans, although Veterans disproportionately live in rural areas (one in four Veterans lives in a rural area, as compared with roughly one in five US residents overall).<sup>21,22</sup> Upon seeing a need for access to health care services especially for rural residents, and with support from the VA's Office of Rural Health, they began gearing the program toward rural Veterans. To date, more than 250 people have participated in the program. In a study published in 2020 that evaluated the MomMoodBooster VA program, participation was associated with decreased depressive symptoms and increased behavioral activation.<sup>23</sup> Program staff have recently begun a new wave of recruiting participants to the program.

### *Key features*

Program leaders shared that the goal of MomMoodBooster is to improve mood, reduce depression, and help develop coping skills. It involves six online cognitive behavioral therapy-derived modules specific to the postpartum period, alongside periodic phone coaching calls to participants. The primary component of the program lasts for six weeks, but Nettleton noted that she typically tells Veterans they would be enrolled in the program for at least six months, which includes fol-

low-up assessments to determine the longer-term impact of the intervention. This longer figure includes the two “booster sessions,” i.e. follow-up calls offered at 90 days and six months after the program is completed. During these follow-up calls, if participants note lingering mental health concerns, they are referred to a primary care provider, therapist, or another appropriate contact to meet their needs. While the current recruitment efforts focus on over-recruiting in rural areas, the content delivered is the same for rural and urban Veterans.

MomMoodBooster focuses on the mental health aspect of pregnancy and the postpartum period, helping Veterans to identify negative thoughts and respond effectively to them, track their mood, and identify activities they enjoy. It can be completed via computer, tablet, or mobile phone, which Veterans must have access to in order to be eligible for the program. Alongside the online modules, all participants receive phone coaching in the form of check-in calls (either weekly, or at weeks 1, 3, and 5).

MomMoodBooster staff keep in close touch with maternity care coordinators at Veterans Affairs (VA) facilities across the country, which aids in their referral processes and allows them to better connect rural Veterans with the help they need. For example, if a prospective participant is screened, but is determined ineligible (e.g., due to current or past mania or psychosis), MomMoodBooster staff refer them to their closest VA maternity care coordinator (MCC) and get in touch with the MCC themselves to ensure coordination of care. They also share the Veterans Crisis Line, and connect them with other more individualized resources (e.g. their local coordinator for Postpartum Support International,<sup>24</sup> or searching for therapists in their area). The program comes as part of a greater push to expand maternal health services within the VA.<sup>25</sup> Currently, the VA covers these services, but does not provide them at VA-run healthcare facilities.<sup>26</sup> VA facilities do offer a range of health care that can be accessed during pregnancy and postpartum, such as primary care and mental health care, but not specifically maternity care.<sup>27,28</sup>

### *Challenges and opportunities*

Because VA regulations do not permit Veterans to be contacted via email, recruiting postpartum individuals to the program can be complex. MomMoodBooster staff send letters and informational flyers and make phone calls to get in touch with Veterans. However, even when they find a Veteran interested in participating, they are not able to sign consent forms virtually, which means many Veterans (more than 30% of those screened eligi-

ble) are lost to follow-up. In addition, staff have noticed an enrollment impact due to the COVID-19 pandemic; postpartum individuals may be reluctant to add something new to their plates. Participants do not interact with each other, and they can only speak to MomMoodBooster coaches via phone or mail, due to VA privacy policies. Some participants have mentioned that a support group specific to postpartum rural Veterans would be very beneficial to them, but currently, this program is limited to one-on-one interactions.

Discussing challenges that rural Veteran participants face more broadly, Nettleton noted that access to health care, especially for access to VA-funded care, is especially difficult in rural areas. For Veterans who need help beyond MomMoodBooster, even if they could get their care through a VA facility (e.g. if it involved seeing a mental health provider to get a prescription for medication), many times, they do not have one nearby they can go to, so they have to find an outside facility.<sup>29</sup> Typically, the VA will cover these services at an outside facility, but there is an approval process, and it might not include full coverage of services.<sup>30</sup>

Still, Nettleton noted that there are many reasons to be hopeful about this program in improving postpartum mental health for rural Veterans. Their initial published results were largely positive, with participation associated with decreased depressive symptoms, increased behavioral activation, and decreased dysfunctional automatic thoughts.<sup>23</sup> Nettleton also noted interpersonal relationship building, with 75% of participants wishing they had more time with their phone coaches. Participants highlighted the benefits of the content of calls with phone coaches. Nettleton shared,

*“we heard from many participants that they learned so many things that made sense and seemed obvious, but that they had not put together before the call. For instance, treating yourself like you would treat a close friend meant that they could have more compassion to their struggles.”*

As another example, one participant realized during a call that her mood spirals were being triggered by chronic pain. She had not previously made that connection, and she found it helpful to ask for support during those hard times when she was in pain.

Nettleton noted that virtual programs like this one may be more widely acceptable since the COVID-19 pandemic, as people are more comfortable on Zoom

and more willing to try telehealth services than they were previously. There are still limitations around broadband and wireless internet in rural areas, but the VA is increasingly providing technology access for rural Veterans. For example, unrelated to MomMoodBooster, there is a VA-run virtual yoga and wellness program for rural Veterans. All participants in this program were given tablets to make the class accessible to them. MomMoodBooster is an example Nettleton hopes the VA will keep in mind, as they look to expand offerings to improve postpartum health for rural Veterans.

## Case #2: Pack Health

### *Organizational overview*

Pack Health is a digital health coaching platform that helps to support individuals with diverse chronic conditions.<sup>31</sup> Headquartered in Alabama, Pack Health provides programs across the nation, to both rural and urban residents. In December 2020, they won the Cross-Sectional Innovation to Improve Rural Postpartum Mental Health Challenge from the Agency for Healthcare Research and Quality (AHRQ).<sup>32</sup> We spoke with Kelly Brassil, the Director of Medical Affairs and Research for Pack Health, about their offerings to rural postpartum parents.

Brassil detailed the goal of Pack Health programs generally, and in the case of postpartum mental health, which is

*“to amplify or augment the care being provided in the clinical space by meeting them in the community where they are managing most of their needs.”*

Like MomMoodBooster, Pack Health provides person-to-person health coaching support, supplemented with delivery of digital content. Where MomMoodBooster uses a web-based platform, Pack Health sends content (what they call “nudges”) via text, email, or app, based on patient preference. Pack Health programs vary in length, but most last at least three months, based on evidence suggesting that is the time it takes for someone to be introduced to and adopt a new health behavior.

### *Key features*

For postpartum mental health specifically, Pack Health wanted to build out a coaching program that explicitly focused on connecting with postpartum individuals, providing coaching support and then setting additional health goals from there. The AHRQ award

allowed Pack Health researchers and developers to focus on postpartum mental health for rural residents, adding this module to their other postpartum offerings, including nutrition, exercise, finances, and more. Brassil noted the importance of targeting rural residents for this program, emphasizing that

*“while the postpartum period can be fraught for any mom with a number of mental health and physical challenges, these can be further compounded by, for example, being far away from your health care provider or residing in a food desert, or living in poverty.”*

Pack Health helps rural parents identify their primary goals during the postpartum period, and then supports the achievement of those goals through “tiny steps,” or small, measurable, weekly outcomes designed to affect larger outcomes. Pack Health expanded the window of offering so that this program is also available prenatally.

The ultimate goal of the program is to improve health outcomes, including maternal and infant morbidity and mortality. The goal of each individual program though, Brassil clarified, is unique to each participant. For example,

*“if you have a rural mom who says, ‘mentally I feel alright under the circumstance, but my main problem postpartum is having trouble getting the nutrition I need so I can breastfeed’...that person’s goal looks different than someone focusing on mental health and well-being.”*

Pack Health also has ancillary services they offer to participants (e.g., ride sharing for appointments, scheduling delivery of nutritious foods). The program itself is customized to each individual participant, and the goals and outcomes are set at the individual-level as well. It is designed for patients with mild to moderate postpartum mental health challenges (assessed through several externally validated tools, including the PHQ-4, PHQ-9, and Edinburgh Postnatal Depression Scale), and is intended to enhance, rather than replace, medical care. That said, Brassil explained the protocols they have in place to address concerns, for example, serious depression or suicidality, which involve everything from routing the participant back to their health care provider (on

the less severe end), up to engaging emergency services.

The program is accessible nationwide, and they currently serve individuals in all 50 states; approximately 17% of all participants are rural residents. Referrals to Pack Health come from either employer-based health programs, insurer offerings (e.g., they have an existing relationship with Blue Cross Blue Shield of Alabama), or health systems. Health care systems typically either work with Pack Health through a research focused lens or through offerings with partner organizations. This leads to an important distinction: this program has no direct-to-consumer offering. In other words, a postpartum individual in rural Alabama could not simply download an app and enroll in this program. Rather, Pack Health works with the aforementioned entities they have relationships with, with the goal that no individual should pay out-of-pocket for these services (recognizing that for each patient, this may depend on health insurance coverage). They continue to seek ways to expand their coverage, (possibly, to enable coverage via Medicaid) so the program can be offered to more rural residents. They also hope to identify new partners to help cover the cost of the program, especially for those who are uninsured/under-insured so that more people can gain access.

### *Challenges and opportunities*

The primary challenges Pack Health faces in distributing its maternal health programming are accessibility and sustainability. From an access standpoint, infrastructure (e.g. reliable broadband internet) is a significant barrier to support digital engagement of any kind. While coaching can be delivered via a rotary phone if necessary, delivery of supplemental content, and perhaps more importantly, the potential for remote patient monitoring via digitally-connected devices, requires consistent connectivity to ensure timely collection of and response to health data. The use of connected blood pressure cuffs to monitor hypertension is one example where reliable connectivity is pivotal to ensure timely data feeds so that an individual could be directed to access healthcare if their data appeared clinically actionable. Infrastructure and affordability of these resources is a barrier that continues to be addressed for digital coaching and many other purposes.

Related to sustainability is the question of who pays for services. Expanding diverse coverage for services is pivotal to ensure that everyone who needs and may benefit from digital health coaching has access to it. Currently supported by select insurers, employers, and grants from life sciences companies or patient facing

organizations, a next step for broader access to Pack Health offerings would include expansion of Medicare and Medicaid coverage for digital health services. The COVID-19 landscape has necessitated a closer look at if and how digital health delivery, whether through telehealth visits with providers, or supplemental support through coaching, can be integrated for coverage. Recent publications have demonstrated how digital coaching is not only beneficial for program participants, but for payers, as well.<sup>33</sup> More broadly, like many organizations, Pack Health staff find it difficult to help patients address the bigger, more upstream factors influencing their health; social drivers of health like poverty or rural disparities in access to care are not easily resolved in a coaching and content delivery offering.

Despite these challenges, Brassil sees a bright future. She noted that because Pack Health addresses more than 30 distinct health conditions, they are able to integrate content and support from other areas. People experiencing pregnancy or postpartum are not just experiencing pregnancy or postpartum. For example, they may be experiencing pregnancy in the context of diabetes or postpartum with an autoimmune condition. Said Brassil,

*“you could have someone that is postpartum who is experiencing a lupus flare causing fatigue. What they need in the moment isn’t necessarily to talk about their mood, but to be supported getting access to their medications, or symptom relief.”*

This whole-person approach, and content to go with it, is something she believes sets them apart.

In February of 2022 Pack Health was acquired by Quest Diagnostics, a Fortune 500 health care company with more than 50,000 employees and offices in the United States, Mexico, and Brazil.<sup>34</sup> Because Quest Diagnostics had an existing Women’s Health focus, Brassil noted that this acquisition placed an even greater emphasis on maternal health. In addition, she highlighted that the increasing focus and attention to rural postpartum health tells her that the data is driving larger funders’ eyes in that direction.

*“I’m hopeful that more organizations will underwrite or endow this work permanently, so services are available more widely to anyone who needs them.”*

## Conclusion

There are many possible ways to improve postpartum health in rural communities. National-level interventions that leverage virtual platforms to broaden their reach, while still offering person-to-person support, are some of the currently available tools in the effort to improve rural maternal health, especially in the postpartum period. However, access to these programs depends on having reliable, affordable access to broadband Internet, cellular connectivity, and/or technological devices, all of which remain a challenge for some rural residents. Supporting rural postpartum health requires investment in health care and in broader infrastructure and social drivers of health. This case study series highlights two different examples of large organizations with a national reach working to support postpartum individuals and families in rural communities across the United States. Other organizations operating at this level may learn from these examples in their own efforts to improve maternal and infant health outcomes.

## References

1. Natality, 2016-2021 expanded Results Form. Accessed February 28, 2023. <https://wonder.cdc.gov/controller/datarequest/D149:jssionid=9DBC6F30F89C3240D8E5EFEC306>
2. Douthit N, Kiv S, Dwolatzky T, Biswas S. Exposing some important barriers to health care access in the rural USA. *Public Health*. 2015;129(6):611-620. doi:10.1016/j.puhe.2015.04.001
3. Maternal Mortality Rates in the United States, 2020. Published November 7, 2022. Accessed January 26, 2023. <https://www.cdc.gov/nchs/data/hestat/maternal-mortality/2020/maternal-mortality-rates-2020.htm>
4. Petersen EE. Vital Signs: Pregnancy-Related Deaths, United States, 2011–2015, and Strategies for Prevention, 13 States, 2013–2017. Centers for Disease Control and Prevention; 2019. Accessed November 25, 2019. <https://www.cdc.gov/mmwr/volumes/68/wr/mm6818e1.htm>
5. Margerison CE, Roberts MH, Gemmill A, Goldman-Mellor S. Pregnancy-Associated Deaths Due to Drugs, Suicide, and Homicide in the United States, 2010-2019. *Obstet Gynecol*. 2022;139(2):172-180. doi:10.1097/AOG.0000000000004649
6. MacDorman MF, Thoma M, Declercq E, Howell EA. Racial and Ethnic Disparities in Maternal Mortality in the United States Using Enhanced Vital Records, 2016–2017. *Am J Public Health*. 2021;111(9):1673-1681. doi:10.2105/AJPH.2021.306375
7. Office USGA. The Additional Risks and Challenges for Pregnant Women in Rural and Underserved Communities. Accessed January 26, 2023. <https://www.gao.gov/blog/additional-risks-and-challenges-pregnant-women-rural-and-underserved-communities>
8. Zaharatos J, St Pierre A, Cornell A, Pasalic E, Goodman D. Building U.S. Capacity to Review and Prevent Maternal Deaths. *J Womens Health* 2002. 2018;27(1):1-5. doi:10.1089/jwh.2017.6800
9. Attanasio LB, Ranchoff BL, Cooper MI, Geissler KH. Postpartum Visit Attendance in the United States: A Systematic Review. *Womens Health Issues Off Publ Jacobs Inst Womens Health*. 2022;32(4):369-375. doi:10.1016/j.whi.2022.02.002
10. Interrante JD, Admon LK, Stuebe AM, Kozhimannil KB. After Childbirth: Better Data Can Help Align Postpartum Needs with a New Standard of Care. *Womens Health Issues* 2022;32(3):208-212. doi:10.1016/j.whi.2021.12.001
11. Kozhimannil KB, Interrante JD, Tuttle MKS, Henning-Smith C. Changes in Hospital-Based Obstetric Services in Rural US Counties, 2014-2018. *JAMA*. 2020;324(2):197-199. doi:10.1001/jama.2020.5662
12. Hung P, Henning-Smith CE, Casey MM, Kozhimannil KB. Access To Obstetric Services In Rural Counties Still Declining, With 9 Percent Losing Services, 2004-14. *Health Aff Proj Hope*. 2017;36(9):1663-1671. doi:10.1377/hlthaff.2017.0338
13. Corbett A, Henning-Smith C, DeArruda Wharton K, Kozhimannil KB. *Case Study: Challenges Related to Pregnancy and Returning to Work after Childbirth in a Rural, Tourism-Dependent Community*. The University of Minnesota Rural Health Research Center. Published February 20, 2015. Accessed February 27, 2023. <https://rhrc.umn.edu/publication/case-study-challenges-returning-to-work-after-childbirth/>
14. Henning-Smith C, Dill J, Baldomero A, Backes Kozhimannil K. Rural/urban differences in access to paid sick leave among full-time workers. *J Rural Health* Published online July 26, 2022. doi:10.1111/jrh.12703
15. Henning-Smith C, Kozhimannil KB. Availability of Child Care in Rural Communities: Implications for Workforce Recruitment and Retention. *J Community Health*. 2016;41(3):488-493. doi:10.1007/s10900-015-0120-3
16. MomMoodBooster | Helping Women with Perinatal Depression. Accessed February 7, 2023. <https://mommoodbooster.com/>
17. Danaher BG, Seeley JR, Silver RK, et al. Trial of a patient-directed eHealth program to ameliorate perinatal depression: the MomMoodBooster2 practical effectiveness study. *Am J Obstet Gynecol*. Published online September 26, 2022:S0002-9378(22)00760-8. doi:10.1016/j.ajog.2022.09.027
18. Milgrom J, Danaher BG, Gemmill AW, et al. Internet Cognitive Behavioral Therapy for Women With Postnatal Depression: A Randomized Controlled Trial of MumMoodBooster. *J Med Internet Res*. 2016;18(3):e54. doi:10.2196/jmir.4993
19. MomMoodBooster web-based intervention for postpartum depression: feasibility trial results - PubMed. Accessed March 10, 2023. <https://pubmed.ncbi.nlm.nih.gov/24191345/>
20. MomMoodBooster | Helping Women with Perinatal Depression. Accessed February 7, 2023. <https://mommoodbooster.com/partner-vha-orh.php>

- 21.VA.gov | Veterans Affairs. Accessed February 7, 2023. <https://www.ruralhealth.va.gov/aboutus/ruralvets.asp>
- 22.Solness CL, Kroska EB, Holdefer PJ, O'Hara MW. Treating postpartum depression in rural veterans using internet delivered CBT: program evaluation of MomMoodBooster. *J Behav Med.* 2021;44(4):454-466. doi:10.1007/s10865-020-00188-5
- 23.Postpartum Support International. *About Us*. Accessed February 27, 2023. <https://www.postpartum.net/about-psi/>
- 24.Birth Equity for Veterans and Servicemembers. doi:10.26099/8d5k-e804
- 25.US Department of Veterans Affairs. VA Women Veterans Health Care. Accessed February 27, 2023. <https://www.womenshealth.va.gov/faq.asp>
- 26.US Department of Veterans Affairs. VA Pregnancy and Mental Health. Accessed February 27, 2023. <https://www.womenshealth.va.gov/topics/pregnancy-and-mental-health.asp#what-services>
- 27.US Department of Veterans Affairs. VA Maternity Care Coordinators. Accessed February 27, 2023. <https://www.womenshealth.va.gov/WOMENSHEALTH/topics/maternity-care.asp>
- 28.Access to Health Care for Rural Veterans: Distance in Context. Published online 2019.

- 29.Rural Veterans and Access to Healthcare Overview - Rural Health Information Hub. Accessed February 27, 2023. <https://www.ruralhealthinfo.org/topics/returning-soldier-and-veteran-health#collaborate>

### Suggested Citation

Tuttle M, Chastain P, Interrante JD, Henning-Smith C, and Kozhimannil KB. Two National-Level Organizations Supporting Rural Postpartum Health Across the United States. *UMN Rural Health Research Center Case Series*. July 2023. <https://rhrc.umn.edu/publication/two-national-level-organizations-supporting-rural-postpartum-health-across-the-united-states>



### Rural Health Research & Policy Centers

Funded by the Federal Office of Rural Health Policy  
[www.ruralhealthresearch.org](http://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 Mariana Tuttle ([tutt090@umn.edu](mailto:tutt090@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