COMMENTARY

Preventing Suicide in Rural Communities During the COVID-19 Pandemic

Lindsey L. Monteith, PhD;1,2 Ryan Holliday, PhD;1,2 Talia L. Brown, PhD;1 Lisa A. Brenner, PhD;1,2,3,4 & Nathaniel V. Mohatt, PhD1,3,5

1 Department of Veterans Affairs Rocky Mountain Mental Illness Research, Education and Clinical Center for Suicide Prevention, Aurora, Colorado
2 Department of Psychiatry, University of Colorado Anschutz Medical Campus, Aurora, Colorado
3 Department of Physical Medicine and Rehabilitation, University of Colorado Anschutz Medical Campus, Aurora, Colorado
4 Department of Neurology, University of Colorado Anschutz Medical Campus, Aurora, Colorado
5 Department of Psychiatry, Yale School of Medicine, New Haven, Connecticut

Funding: This material is based upon work supported in part by the US Department of Veterans Affairs (VA). The views expressed are those of the authors and do not necessarily represent the views or policy of the VA or the US government.

For further information, contact: Lindsey L. Monteith, PhD, Department of Veterans Affairs, Rocky Mountain MIRECC, 1700 North Wheeling, Aurora, CO 80045; e-mail lindsey.monteith@va.gov.

doi: 10.1111/jrh.12448

Key words: COVID-19, mental health, psychology, social determinants of health, utilization of health services.

Individuals in rural communities are at increased risk for suicide.1,2 While the impact of Coronavirus Disease 2019 (COVID-19) continues to unfold,3 it is likely that suicide risk factors among individuals residing in rural areas will be exacerbated and suicide rates may subsequently increase.4 Awareness of these factors is essential to ensure that appropriate steps are taken to prevent suicide in rural communities, both during and in the aftermath of this pandemic. In this commentary, we delineate key considerations for doing so, with potential solutions summarized in Table 1.

Interpersonal Factors

First and foremost, interpersonal factors are well-established risk factors for suicide, including social isolation,5,6 loneliness,6 lack of belonging,7 and perceived burdensomeness.7,8 Residents of rural communities are more likely to experience social isolation, relative to those living in urban communities.9 As rural areas tend to be less densely populated, social support can be more difficult to obtain during acute suicidal crises. These interpersonal risk factors for suicide are likely to be exacerbated amidst the current pandemic, especially among vulnerable populations (eg, those who are elderly or immunosuppressed), who may experience greater physical isolation due to concerns about infection.10,11 Life-saving physical distancing policies aimed at “flattening the curve”12 may also inadvertently exacerbate social isolation, thwarted belongingness, and perceived burdensomeness.13,14 For example, quarantine, mandatory teleworking requirements, and community-based closures may prompt social isolation, as well as decreased belongingness and increased burdensomeness.13,14 In addition, major stressors, such as housing instability,15 unemployment,16 and health-related concerns17 characteristic of this pandemic may increase perceived burdensomeness and risk for suicide.18,19

Another key interpersonal risk factor that also may be exacerbated during the COVID-19 pandemic is interpersonal violence (ie, physical or sexual violence, such
Table 1 Challenges and Potential Strategies for Mitigating Suicide Risk in Rural Communities During the COVID-19 Pandemic

| Challenge                                                                 | Potential Solutions |
|--------------------------------------------------------------------------|---------------------|
| Exacerbation of interpersonal risk factors for suicide due to physical   | • Maintain social   |
| distancing requirements and psychosocial stressors during COVID-19       | connectedness through |
| (eg, social isolation, loneliness, lack of connection, perceived        | virtual and phone   |
| burdensomeness, interpersonal violence)                                 | communications or    |
|                                                                          | while outdoors (eg,  |
|                                                                          | in nature)          |
|                                                                          | • Engage in         |
|                                                                          | meaningful, value-  |
|                                                                          | driven activities   |
|                                                                          | that promote "pulling |
|                                                                          | together" as        |
|                                                                          | communities (eg,    |
|                                                                          | remote volunteering,|
|                                                                          | helping more        |
|                                                                          | vulnerable community|
|                                                                          | members)            |
|                                                                          | • Ensure that       |
|                                                                          | COVID-19 survivors   |
|                                                                          | are not            |
|                                                                          | stigmatized or     |
|                                                                          | discriminated       |
|                                                                          | against            |
|                                                                          | • Disseminate       |
|                                                                          | information         |
|                                                                          | regarding free     |
|                                                                          | web-based          |
|                                                                          | applications to     |
|                                                                          | cope with           |
|                                                                          | interpersonal stress|
|                                                                          | (eg, AIMS for       |
|                                                                          | Anger Management,   |
|                                                                          | Mood Coach,         |
|                                                                          | Parenting2Go,       |
|                                                                          | Stair Coach⁴)       |
|                                                                          | • Messaging about   |
|                                                                          | interpersonal       |
|                                                                          | violence resources  |
|                                                                          | within rural        |
|                                                                          | communities and     |
|                                                                          | nationally (eg,     |
|                                                                          | National Domestic   |
|                                                                          | Violence Hotline,   |
|                                                                          | National Sexual     |
|                                                                          | Assault Telephone   |
|                                                                          | Hotline, Childhelp  |
|                                                                          | National Child      |
|                                                                          | Abuse Hotline) and  |
|                                                                          | actions (eg,        |
|                                                                          | safety planning)    |
|                                                                          | • Disseminate       |
|                                                                          | resources and       |
|                                                                          | support to         |
|                                                                          | facilitate parental |
|                                                                          | coping and         |
|                                                                          | appropriate         |
|                                                                          | disciplinary        |
|                                                                          | strategies during   |
|                                                                          | periods of stress   |
|                                                                          | • Increase           |
|                                                                          | interpersonal       |
|                                                                          | violence screening  |
|                                                                          | by healthcare       |
|                                                                          | providers           |
| Increased access to firearms when acute suicide risk may be elevated    | • Education regarding |
|                                                                         | safe firearm       |
|                                                                         | storage practices   |
|                                                                         | and potential risks |
|                                                                         | for new firearm     |
|                                                                         | owners              |
|                                                                         | • Public health      |
|                                                                         | messaging that     |
|                                                                         | communicates the   |
|                                                                         | risks of firearm   |
|                                                                         | access when        |
|                                                                         | suicide risk is     |
|                                                                         | elevated, as well   |
|                                                                         | as the benefits of  |
|                                                                         | safe firearm       |
|                                                                         | storage (eg, locked,|
|                                                                         | unloaded)          |
|                                                                         | • Increase options  |
|                                                                         | for temporarily    |
|                                                                         | reducing firearm   |
|                                                                         | access for         |
|                                                                         | individuals at      |
|                                                                         | elevated risk for   |
|                                                                         | suicide (eg, adding |
|                                                                         | and communicating  |
|                                                                         | options for safe    |
|                                                                         | temporary storage  |
|                                                                         | in rural            |
|                                                                         | communities)        |
|                                                                         | • Ensure that       |
|                                                                         | healthcare providers|
|                                                                         | are assessing       |
|                                                                         | firearm access      |
|                                                                         | among individuals   |
|                                                                         | at increased        |
|                                                                         | risk for suicide    |
|                                                                         | • Increase access   |
|                                                                         | to free firearm     |
|                                                                         | locks and safes     |
| Onset or exacerbation of mental health symptoms due to COVID-19 related  | • Destigmatization  |
| concerns and distancing, while access to mental healthcare may be       | of mental health    |
| decreased                                                            | care (eg, public    |
|                                                                         | health messaging    |
|                                                                         | about the          |
|                                                                         | importance)         |
|                                                                         | • Public health      |
|                                                                         | messaging regarding |
|                                                                         | how to obtain       |
|                                                                         | mental health care  |
|                                                                         | (eg, telehealth)    |
|                                                                         | and crisis support  |
|                                                                         | (eg, national and   |
|                                                                         | local crisis lines) |
|                                                                         | • Virtual or tele-  |
|                                                                         | health individual   |
|                                                                         | or group sessions   |
|                                                                         | • Disseminate free  |
|                                                                         | web-based applications to facilitate psychoeducation and treatment (eg, |
|                                                                         | Life Armor),        |
|                                                                         | symptom management |
|                                                                         | (eg, PTSD Coach,    |
|                                                                         | CBT-i Coach⁴),      |
|                                                                         | stress reduction    |
|                                                                         | and coping (eg,     |
|                                                                         | Mindfulness Coach,  |
|                                                                         | Breathe2Relax,      |
|                                                                         | Moving Forward),   |
|                                                                         | and suicide        |
|                                                                         | prevention (eg,     |
|                                                                         | Virtual Hope Box,   |
|                                                                         | Safety Plan Mobile  |
|                                                                         | App).              |
|                                                                          |⁴Intended to be used in conjunction with professional treatment.      |
|                                                                          | CBT-i, cognitive    |
|                                                                          | behavioral therapy  |
|                                                                          | for insomnia.       |

as childhood abuse or intimate partner violence),⁰¹,²¹ which is associated with increased risk for suicide.²² This is particularly concerning for those living in rural communities, where intimate partner violence tends to be more severe, chronic, and is associated with worse health and psychosocial outcomes,²³ compared to urban settings. Unfortunately, resources for addressing interpersonal violence in rural communities are more limited, with more barriers to help-seeking (eg, confidentiality concerns, local politics, distance), greater areas of need for specific services,²⁴ and cultural norms that can deter disclosure and help-seeking.²⁵

Thus, it will be critical to address these interpersonal risk factors for suicide in rural communities during and following the COVID-19 pandemic. Finding alternate ways to decrease social isolation and maintain connectedness and belongingness while adhering to physical distancing is paramount. Although telephone and virtual communication can be used to maintain social connectedness, many individuals in rural communities lack reliable access to high-speed Internet.²⁶ Consequently, accomplishing and maintaining social interaction in rural communities may require nuanced and creative solutions. One potential strategy involves engaging in social
interactions outdoors while adhering to physical distancing guidelines, which may be more feasible in rural areas since they often maintain open space. In addition to potentially increasing social connectedness, being outdoors also may help to bolster mood\textsuperscript{26} and promote mental health.\textsuperscript{27,28} Rural communities could also set up means of identifying individuals who are vulnerable or struggling to ensure that they feel connected and cared for.

Helping individuals to derive a sense of purpose is also critical to offsetting the perceived burdensomeness that can accompany major financial stressors and health concerns.\textsuperscript{17,29,30} “Pulling together” by collectively engaging into meaningful, value-driven activity during crises can attenuate the impact of perceived burdensomeness, while concurrently increasing belongingness.\textsuperscript{31} It can also promote resilience,\textsuperscript{32} and individual and collective sense of control.\textsuperscript{30} Moreover, as individuals experience a greater sense of purpose, meaning, and connectedness, they are more likely to experience decreased risk for suicidal ideation and suicidal self-directed violence.\textsuperscript{32-34} Thus, providing rural communities with the resources to come together to increase sense of purpose, while simultaneously protecting the most vulnerable community members from infection, is integral. One option for beginning to address this is for rural communities to create opportunities for remote volunteering (eg, fundraising or providing supplies for individuals who are unable to leave their homes) through local organizations or grassroots efforts. Of note, it may be particularly important for communities to come up with specific solutions themselves, both to increase efficacy in doing so as well as to increase feasibility and sustainability of different community-based efforts.

To address interpersonal violence, rural communities can disseminate information regarding interpersonal violence resources, such as toll-free hotlines, chat lines, and community-based clinics and services. Rural providers can also increase efforts to screen their patients for interpersonal violence and ensure that those with histories of interpersonal violence have safety plans available. Beginning a conversation about interpersonal violence as a community also may be key to decreasing stigma and increasing the likelihood that rural community members who experience interpersonal violence will seek help for these experiences, whether formally or through other community supports (eg, family, friends).

### Access to Firearms

Another key risk factor for suicide that may be exacerbated during the COVID-19 pandemic involves access to firearms,\textsuperscript{15,36} the leading means of suicide in rural communities.\textsuperscript{37} Individuals in rural communities are more likely to own firearms, including multiple firearms.\textsuperscript{38} Recent media reports have described individuals acquiring firearms and ammunition as a result of fears regarding COVID-19.\textsuperscript{39} Thus, previous firearm owners may have obtained additional firearms and ammunition, while the number of firearm owners overall has likely increased. This is particularly concerning given the stressful nature of the current pandemic, including exacerbation of key risk factors and potential decrease in protective factors.

Thus, another key consideration for preventing suicide in rural communities during the COVID-19 pandemic entails increasing safe firearm-related behaviors. This would align with national suicide prevention recommendations more broadly, which include reducing access to lethal means, such as firearms, for populations at increased suicide risk or during periods of elevated risk for suicide.\textsuperscript{40,41} Moreover, this is a critical time to ensure that knowledge regarding the risk associated with firearm access is disseminated to rural communities. It may be particularly important to implement public health messaging that communicates the benefits associated with safe firearm storage (eg, locked, unloaded),\textsuperscript{42} as well as options for temporarily reducing firearm access for individuals at elevated risk for suicide.\textsuperscript{43,44}

### Mental Health and Access to Care

Finally, mental health symptoms and diagnoses are well-established risk factors for suicide,\textsuperscript{45} and there is the potential for onset or exacerbation of mental health symptoms during the COVID-19 pandemic—whether due to fear and anxiety regarding infection, or the prolonged physical distancing, disruptions, and uncertainty created by this unprecedented and potentially lethal pandemic.\textsuperscript{46-49} This may disproportionally affect individuals in rural communities, who already experience increased stigma regarding mental health, suicide, and help-seeking.\textsuperscript{50-52} Furthermore, due to existing shortages of mental health providers in rural communities, many individuals in rural areas rely upon primary care providers to provide mental health screening, resources, and treatment.\textsuperscript{53-55} However, concerns about infection and triaging the most medically severe patients during the COVID-19 outbreak may further strain primary care providers’ ability to provide such services. Ensuring that individuals in rural communities have access to mental health care during and following the COVID-19 pandemic will be a challenge.

Addressing this may include increasing dissemination of public health messaging regarding avenues for
obtaining mental health care (eg, telehealth) and crisis support (eg, national and local crisis lines) in rural communities, as well as continued destigmatization of mental health care. Family and friends can encourage one another to seek treatment if experiencing emotional distress and can share their own experiences with seeking help. Increasing dissemination of free web-based applications may also help to facilitate coping for a broad range of concerns. In addition, this is likely a particularly important time for rural health care providers to screen for mental health symptoms (eg, depression, anxiety, posttraumatic stress disorder, substance use). For rural patients most at risk, ensuring continued access to mental health care (eg, telehealth) will be key.

In sum, individuals in rural communities may be disproportionately impacted by the COVID-19 pandemic. Many of these risk factors for suicide can interact with one another to further compound risk. Nonetheless, many of these solutions also may be synergistic in potentially mitigating these risks. Ensuring that rural communities are adequately equipped to prevent suicide while managing the spread and impact of COVID-19 is critical.

Endnote

i. While the term “social distancing” has been used to describe social isolation measures to limit the spread of COVID-19, we use the term “physical distancing” instead to describe recommended physical barriers (eg, sheltering in place and maintaining at least 6 feet of distance from nonhousehold members).

References

1. Hirsch J. A review of the literature on rural suicide: risk and protective factors, incidence, and prevention. Crisis. 2006;27(4):189-199.
2. Hirsch JK, Cukrowicz KC. Suicide in rural areas: an updated review of the literature. J Rural Ment Heal. 2014;38(2):65-78.
3. Newman K. Rural communities brace for coronavirus. U.S. News. https://www.usnews.com/news/healthiest-communities/articles/2020-03-23/rural-america-braces-for-coronavirus. Published March 23, 2020. Accessed March 25, 2020.
4. Chan SMS, Chiu FKH, Lam CWL, et al. Elderly suicide and the 2003 SARS epidemic in Hong Kong. Int J Geriatr Psychiatry. 2006;21(2):113-118.
5. Leigh-Hunt N, Bagguley D, Bash K, et al. An overview of systematic reviews on the public health consequences of social isolation and loneliness. Public Health. 2017;152:157-171.
6. Calati R, Ferrari C, Brittner M, et al. Suicidal thoughts and behaviors and social isolation: a narrative review of the literature. J Affect Disord. 2019;245:653-667.
7. Chu C, Buchman-Schmitt JM, Stanley IH, et al. The interpersonal theory of suicide: a systematic review and meta-analysis of a decade of cross-national research. Psychol Bull. 2017;143(12):1313-1345.
8. Ma J, Batterham PJ, Calear AL, et al. A systematic review of the predictions of the Interpersonal-psychological theory of suicidal behavior. Clin Psychol Rev. 2016;46:34-45.
9. Beeson PG, Britain C, Howell ML, et al. Rural mental health at the millennium. In: Mental Health, United States, 1998. Rockville, MD: DIANE Publishing; 1998:82-97.
10. Leight SB. The application of a vulnerable populations conceptual model to rural health. Public Health Nurs. 2003;20(6):440-448.
11. Letvak S. The importance of social support for rural mental health. Issues Ment Health Nurs. 2002;23(3):249-261.
12. Calsyn M, Gee E, Waldrop T, et al. Social distancing to fight coronavirus: a strategy that is working and must continue. Center for American Progress. https://www.americanprogress.org/issues/healthcare/news/2020/03/25/482278/social-distancing-fight-coronavirus-strategy-working-must-continue/. Published March 25, 2020. Accessed March 26, 2020.
13. Brooks SK, Webster RK, Smith LE, et al. The psychological impact of quarantine and how to reduce it: rapid review of the evidence. Lancet. 2020;395(10227):912-920.
14. Cheung YT, Chau PH, Yip PSF. A revisit on older adults suicides and Severe Acute Respiratory Syndrome (SARS) epidemic in Hong Kong. Int J Geriatr Psychiatry. 2008;23(12):1231-1238.
15. Metraux S, Rayl M, O’Hanlon J, et al. Addressing the Threat of COVID-19-Related Housing Instability and Displacement in Delaware; 2020. http://dspace.udel.edu/handle/19716/25186. Accessed April 1, 2020.
16. International Labor Organization. COVID-19 and the World of Work: Impact and Policy Responses; 2020. http://hdl.handle.net/10707/533608. Accessed April 1, 2020.
17. Yip PSF, Cheung YT, Chau PH, et al. The impact of epidemic outbreak: the case of severe acute respiratory syndrome (SARS) and suicide among older adults in Hong Kong. Crisis. 2010; 31(2):86-92.
18. Milner A, Page A, LaMontagne AD. Cause and effect in studies on unemployment, mental health and suicide; a meta-analytic and conceptual review. Psychol Med. 2014;44(5):909-917.
19. Ayano G, Tsegay L, Abraha M, et al. Suicidal ideation and attempt among homeless people: a systematic review and meta-analysis. Psychiatr Q. 2019;90(4):829-842.
20. Godin M. How coronavirus is affecting victims of domestic violence. Time. https://time.com/5803887/coronavirus-domestic-violence-victims/. Published March 18, 2020. Accessed March 26, 2020.
21. Lanier C, Maume MO. Intimate partner violence and social isolation across the rural/urban divide. *Violence Against Women*. 2009;15(11):1311-1330.

22. Maasaaac MB, Buigea LC, Jelinke GA. The association between exposure to interpersonal violence and suicide among women: a systematic review. *Aust N Z J Public Health*. 2017;41(1):61-69.

23. Edwards KM. Intimate partner violence and the rural-urban-suburban divide: myth or reality? A critical review of the literature. *Trauma, Violence, Abus*. 2015;16(3):359-373.

24. Grossman SF, Hinkley S, Kawalski A, et al. Rural versus urban victims of violence: the interplay of race and region. *J Fam Violence*. 2005;20:71-81.

25. Anderson M. About a quarter of rural Americans say access to high-speed internet is a major problem. *Pew Research Center*. https://www.pewresearch.org/fact-tank/2018/09/10/about-a-quarter-of-rural-americans-say-access-to-high-speed-internet-is-a-major-problem/. Published September 10, 2018. Accessed March 25, 2020.

26. Berman MG, Kross E, Krpan KM, et al. Interacting with nature improves cognition and affect for individuals with depression. *J Affect Disord*. 2012;140(3):305.

27. van den Berg M, Wendel-Vos W, vanPoppel M, et al. Health benefits of green spaces in the living environment: a systematic review of epidemiological studies. *Urban For Urban Green*. 2015;14(4):806-816.

28. Ulrich RS, Simons RF, Losito BD, et al. Stress recovery during exposure to natural and urban environments. *J Environ Psychol*. 1991;11(3):201-230.

29. Van Orden KA, Witte TK, Cukrowicz KC, et al. The interpersonal theory of suicide. *Psychol Rev*. 2010;117(2):575-600.

30. Hobfoll SE, Watson P, Bell CC, et al. Five essential elements of immediate and mid-term mass trauma intervention: empirical evidence. *Psychiatry*. 2007;70(4):283-315.

31. Gordon KH, Bresin K, Domb Heck J, et al. The impact of the 2009 Red River Flood on interpersonal risk factors for suicide. *Crisis*. 2011;32(1):52-55.

32. Joiner TE, Hollar D, Van Orden K. On Buckeyes, Gators, Super Bowl Sunday, and the Miracle On Ice: “pulling together” is associated with lower suicide rates. *J Soc Clin Psychol*. 2006;25(2):179-195.

33. Kleiman EM, Beaver JK. A meaningful life is worth living: meaning in life as a suicide resiliency factor. *Psychiatry Res*. 2013;210(3):939.

34. Straus E, Norman SB, Tripp JC, et al. Purpose in life and conscientiousness protect against the development of suicidal ideation in U.S. military veterans with PTSD and MDD: results from the National Health and Resilience in Veterans Study. *Chronic Stress*. 2019;3:1-10.

35. Anglemyer A, Horvath T, Rutherford G. The accessibility of firearms and risk for suicide and homicide victimization among household members: a systematic review and meta-analysis. *Ann Intern Med*. 2014;160(2):101-110.

36. Miller M, Barber C, White RA, et al. Firearms and suicide in the United States: is risk independent of underlying suicidal behavior? *Am J Epidemii*. 2013;178(6):946-955.

37. Searles VB, Valley MA, Hedegaard H, et al. Suicides in urban and rural counties in the United States, 2006-2008. *Crisis*. 2014;35(1):18-26.

38. Igielnik R. Rural and urban gun owners have different experiences, views on gun policy. *Pew Research Center*. https://www.pewresearch.org/fact-tank/2017/07/10/rural-and-urban-gun-owners-have-different-experiences-views-on-gun-policy/. Published July 10, 2017. Accessed March 25, 2020.

39. Lee K, Chabria A. As the coronavirus pandemic grows, gun sales are surging in many states. *Los Angeles Times*. https://www.latimes.com/world-nation/story/2020-03-15/coronavirus-pandemic-gun-sales-surge-us-california. Published March 16, 2020. Accessed March 25, 2020.

40. U.S. Department of Health and Human Services (HHS) Office of the Surgeon General and National Action Alliance for Suicide Prevention. 2012 *National Strategy for Suicide Prevention: Goals and Objectives for Action*. Washington, DC: HHS; 2012.

41. National Action Alliance for Suicide Prevention-Lethal Means Stakeholder Group. *Lethal Means & Suicide Prevention: A Guide for Community & Industry Leaders*. Washington, DC: 2019. https://theactionalliance.org/sites/default/files/lethal_means_and_suicide_prevention-a_guide_for_community_and_industry_leaders_final.pdf. Accessed March 26, 2020.

42. Shenassa ED, Rogers ML, Spalding KL, et al. Safer storage of firearms at home and risk of suicide: a study of protective factors in a nationally representative sample. *J Epidemiol Community Heal*. 2004;58(10):841-848.

43. Runyan C, Becker A, Brandspigel S, et al. Lethal means counseling for parents of youth seeking emergency care for suicidality. *West J Emerg Med*. 2016;17(1):8-14.

44. Runyan CW, Brown TL, Brooks-Russell A. Preventing the invisible plague of firearm suicide. *Am J Orthopsychiatry*. 2015;85(3):221-224.

45. Too LS, Spittal MJ, Buigea L, et al. The association between mental disorders and suicide: a systematic review and meta-analysis of record linkage studies. *J Affect Disord*. 2019;259:302-313.

46. Cao W, Fang Z, Hou G, et al. The psychological impact of the COVID-19 epidemic on college students in China. *Psychiatry Res*. 2020;1-12.

47. Xiang Y-T, Yang Y, Li W, et al. Timely mental health care for the 2019 novel coronavirus outbreak is urgently needed. *Lancet Psychiatry*. 2020;7(3):228-229.

48. James PB, Wardle J, Steel A, et al. Post-Ebola psychosocial experiences and coping mechanisms among Ebola survivors: a systematic review. *Trop Med Int Heal*. 2019;24(6):671-691.
49. Tucci V, Moukaddam N, Meadows J, et al. The forgotten plague: psychiatric manifestations of Ebola, Zika, and emerging infectious diseases. J Glob Infect Dis. 2017;9(4):151-156.

50. Jones AR, Cook TM, Wang J. Rural-urban differences in stigma against depression and agreement with health professionals about treatment. J Affect Disord. 2011;134(1-3):145-150.

51. Stewart H, Jameson JP, Curtin L. The relationship between stigma and self-reported willingness to use mental health services among rural and urban older adults. Psychol Serv. 2015;12(2):141-148.

52. Monteith LL, Smith NB, Holliday R, et al. “We’re afraid to say suicide”: stigma as a barrier to implementing a community-based suicide prevention program for rural veterans. J Nerv Ment Dis. December 2019:1. https://doi.org/10.1097/nmd.0000000000001139

53. Gamm L, Stone S, Pittman S. Mental Health and Mental Disorders—A Rural Challenge: A Literature Review. Rural Healthy People 2010: A companion document to Healthy People 2010. Vol. 2. College Station, TX: The Texas A&M University System Health Science Center, School of Rural Public Health, Southwest Rural Health Research Center; 2003. Vol. 2; 2003. https://www.researchgate.net/publication/255683562. Accessed March 25, 2020.

54. Thomas D, MacDowell M, Glasser M. Rural mental health workforce needs assessment—a national survey. Rural Remote Heal. 2012;12:2176.

55. Varia SG, Ehin J, Stout ER. Suicide prevention in rural communities: perspectives from a community of practice. J Rural Ment Heal. 2014;38(2):109-115.

56. Ajilore O, Willingham Z. Rural Americans are vulnerable to the coronavirus. Center for American Progress. https://www.americanprogress.org/issues/economy/news/2020/03/05/481340/rural-communities-vulnerable-coronavirus/. Published March 5, 2020. Accessed March 25, 2020.