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Promoting Access to Care for Women of Reproductive Age with Mental Health and Substance Use Disorders in Rural Communities

AMCHP
ASSOCIATION OF MATERNAL & CHILD HEALTH PROGRAMS

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Introduction

Like their urban counterparts, rural communities* in the US face significant barriers to good health. Social determinants such as rising unemployment, food insecurity, inadequate housing, low rates of health insurance coverage, and deteriorating economies play a significant role in health outcomes. Geographical isolation and limited transportation options create additional barriers for rural populations. Rural health providers are under increasing pressure to change their approach to delivering care while grappling with acute workforce shortages and decreasing revenue. Historical legacies of racial oppression also perpetuate stigmatization of racial/ethnic minorities and increase health disparities in rural communities. These challenges are intensified by the health and economic devastation of the COVID-19 crisis.

Prevalence of Mental Health and Substance Abuse Disorders in Reproductive Age Women

In 2017, nearly one quarter of women in the United States has a diagnosable mental health disorder.[1] Data from the Centers for Disease Control and Prevention's Pregnancy Risk Assessment Monitoring System (PRAMS) from 2012–2015 indicate that an increasing number of women are reporting depression prior to pregnancy; similarly, an increasing number of women report having symptoms of depression in the postpartum period.[2] Estimates of mental health disorders during pregnancy range from 15 to 29 percent, and the research suggests that fewer than 14 percent of affected women seek treatment while pregnant.[3]

While rates of illicit drug use among reproductive age (18–44) women are trending down, rates of substance use remain high for this population.[4] Seven percent of women report using prescription opioids during pregnancy.[5] More than 14,000 women died from opioid overdose in the US in 2018, up from 2000 in 1999.[6] Rates of polysubstance use, specifically the pairing of opioids with methamphetamine are increasing.[7] Rates of marijuana use, particularly among pregnant women, are on the rise as well.[8]

America's rural communities face significant challenges in addressing women's mental health and substance use disorder (MH/SUD) needs. Rural areas are more intensely affected by the rise in opioid overdose deaths and the parallel increase in physicians prescribing opioids; from 2007–2017, opioid-related overdose deaths more than doubled in rural areas.[9] In national surveys, more than 60 percent of Americans indicate they have sought mental health treatment for themselves or someone else;

however, people from rural areas are less likely to report mental health services as being "extremely accessible."[10] In rural communities, women of reproductive age with MH/SUD face the added challenge of limited access to obstetric and gynecological (OB/GYN) care. Maternal and infant mortality rates are higher in rural than in urban communities,[11] and women who do not receive appropriate MH/SUD treatment are at increased risk for complications during pregnancy and the postpartum period.[12] Because of the barriers to delivering care to this population, coupled with their marginalization, women in rural areas with MH/SUD who develop COVID-19 may find even greater difficulty accessing care.

Unique Needs and Challenges of Women of Reproductive Age with MH/SUD

Sixty-three percent of counties nationwide are rural[13] and approximately 15 percent of all births annually in the U.S. occur in rural areas, where the initiation rate of prenatal care is lower than the U.S. as a whole.[14] Women living in rural areas tend to experience poorer health compared to their urban counterparts, with higher rates of obesity, smoking, and heart-disease related deaths, and lower rates of preventive screenings for cervical and breast cancer.[15] These outcomes also impact children of women with untreated MH/SUD, who often have low birth weight, lower Apgar scores, sleep dysfunction and poorer parent-infant bonding.[15]

Because women of reproductive age with MH/SUD, especially pregnant women, have unique and complex needs, a coordinated continuum of care with multiple access points is critical to achieving positive maternal and infant outcomes. Traditional health care systems often lack the specialized services needed to address the complex needs of women of reproductive age with

*Definitions of "rural" vary. This issue brief uses the word "rural" in a general sense to refer to areas of the United States that are sparsely populated.

Table 1. *Vital Maternal Health System Elements Before, During, and After Pregnancy*

Maternal Health System Element	Before Pregnancy	During Pregnancy			After Pregnancy
		Prenatal	Labor & Delivery	Postpartum	
Health Insurance Coverage	●	●	●	●	●
Family Planning	●			●	●
Routine or Regular Checkups	●	●			●
Identification and Support for High-Risk Conditions	●	●		●	●
Mental Health and Substance Use Screening, Treatment, Recovery Support and Wrap-around Care	●	●	●	●	●
Oral Health Services	●	●		●	●
Genetic Screening	●	●			

MH/SUD. Integrating MH/SUD treatment services into perinatal care is complicated by conflicting federal and state regulations governing licensing, scope of practice, and payment structures; differences in care philosophies (e.g., physician-led versus patient-led); and negative attitudes of health professionals toward individuals with MH/SUD, among other issues. In both urban and rural areas, MH/SUD treatment typically functions outside of the perinatal health care system.

The Centers for Medicare and Medicaid Services' (CMS) report, *Improving Access to Maternal Health Care in Rural Communities,* describes women's need for access to a variety of quality services prior to, during, and after pregnancy to ensure positive maternal and infant health outcomes. Table 1 *(above)* illustrates the CMS-recommended elements of a comprehensive maternal health system, including the full array of MH/SUD services.[16]

Current Challenges in Access to Care in Rural Areas

Fragmented Systems of Care

Fragmented systems of care and workforce shortages are primary barriers to the provision of quality MH/SUD services for women of reproductive age in rural areas. The service systems for women of with MH/SUD in rural areas are most often compartmentalized, if these systems exist at all. Few studies have documented distinct efforts to coordinate OB-GYN care with MH/SUD systems. However, several qualitative research studies have been conducted with pregnant women with MH/SUD, to understand their experiences navigating perinatal care and mental health care simultaneously. Although the findings had limitations and were not exclusive to women in rural areas, researchers found that one-third of women receiving medication treatment for depression when they became pregnant did not continue to receive medication treatment as their pregnancies progressed.[17, 18]

Various trends have impacted access to care in rural areas, and the landscape continues to evolve. Rural hospital closures in the past decade have created significant gaps in care. Rural hospitals are often the largest employers in a rural area, and a closure often reverberates throughout a local economy and creates added barriers to patient access. Between 2010 and 2019, 119 rural hospitals in the U.S. closed, and an additional 847 were in financial distress and are predicted to close.[19] Hospital closures can affect the availability of hospital-based OB/GYN care for women, increasing the wait times to access care and the distance that a woman must travel to obtain services.[20] For rural hospitals that remains open, there is a continued trend of closing obstetrics units.[21] These losses have significant repercussions for access to labor and delivery, and for specialist services for women with pregnancy complications. The loss of a hospital and its

ancillary services affects women's ability to receive prenatal, perinatal, and postpartum care, and can lead to poorer health outcomes for mothers and babies.

Critical access hospitals, found only in rural areas, are essential safety net providers for those in need of care during a MH/SUD crisis. Although many rural hospitals lack psychiatrists or addiction physicians, or other specialty care such as inpatient psychiatric beds, critical access hospitals serve as an intervention point to stabilize and transfer patients to the appropriate level of care, either within the local system or to treatment centers outside of the community.[22]

Workforce Shortages

Across health disciplines, workforce shortages hinder access to care, and these shortages are amplified in rural areas. Almost half of rural counties do not have an OB-GYN or certified midwife.[23] Access to psychiatrists is also concerning. Thirty-five percent of people living in nonmetropolitan counties reside in a mental health care professional shortage area.[24, 25] National workforce projections for several professions, including addiction counselors, social workers, psychiatrists, mental health counselors, and psychologists, are anticipated to fall short of future demand.[26, 27] The current MH/SUD workforce requires additional training on identifying and communicating with pregnant women with MH/SUD. Likewise, OB-GYNs need training on safe use of psychiatric medication and MAT during pregnancy; and coordinating services with addiction professionals, psychiatrists, social workers and therapists. To address the lack of diversity within the professional MH/SUD workforce—both in rural and metropolitan areas—a greater emphasis on recruitment and training of individuals of color should be considered.[28]

Access to Medication Assisted Treatment (MAT)

For pregnant and postpartum women with OUD, the provision of MAT and behavioral therapy is considered best practices for treatment.[29] However in rural areas, the MH/SUD workforce is insufficient to meet the treatment needs of women with Opioid Use Disorder. In 2018, only 47 percent of U.S. counties had a physician legally authorized to deliver MAT; of the counties that had no physicians who could prescribe MAT, 82 percent were in rural areas.[30] Although federal authority allows for certain nonphysicians, such as physician assistants and nurse practitioners to administer MAT, state regulations vary.† Another deterrent for women seeking help is the stigma attached to MAT. Obtaining treatment in a discreet manner can be difficult due to heightened social visibility in rural areas. Moreover, pregnant or parenting women may also be reluctant to receive MAT because of the risk of child welfare involvement.

Improving MH/SUD Care for Women of Reproductive Age Through Innovation: State Examples

Provider Training and Workforce

Solutions to the MH/SUD workforce crisis should include a multipronged approach that incorporates expanding provider training opportunities, broadening scope of practice for non-physicians providers, and increasing opportunities for people with lived experience to participate in the behavioral health workforce as recovery coaches, peer support specialists, and other community-based providers.[31] Doulas—trained professionals who provide emotional and physical support and education to women before, during, and immediately following childbirth—can also assist women with their SUD treatment and recovery needs. The uneven geographic distribution of doulas, however, will require an intentional focus on funding, recruitment and training of doulas in rural areas.[32]

Implementing virtual consultation and training models, such as Project ECHO, ensure provider-to-provider communication and case consultation. In 2020, **Montana** will implement a Project ECHO model to support rural health care providers with pregnant and post-partum patients. OB/GYN providers will consult with rural doctors on complex care issues, including women with MH/SUD and MAT needs.[33] **Utah** is training providers statewide on the OB Safety Bundles through a partnership with the Utah Public Health

†During the COVID-19 public health emergency, Federal regulations permit licensed mid-level practitioners in opioid treatment programs (OTP) to administer and dispense MAT absent the direct supervision of an OTP physician.

Department, University of Utah, and hospitals using a virtual Project ECHO platform. The quality improvement initiative included assessments of current practice, remote content delivery, and discussions among providers.[34]

Engaging non-traditional health and social service providers is a strategy that the **Arizona** Department of Health Services (ADHS) has embraced. ADHS employs community health workers to engage and advocate for pregnant and postpartum women in rural communities. Community health workers live in the local communities they serve and are trained to support women in specialized needs, such as prenatal growth/development, labor/delivery, warning signs of early labor, parenting skills and SUD recovery support. They serve as an important bridge to services and help women to navigate pregnancy and postpartum challenges.[35]

Broadening scope of practice laws allows providers, including midwives, nurse practitioners, and physician assistants, to practice to the full extent of their licensure and credentialing. **Arkansas** passed legislation to expand MAT prescribing authority for nurse practitioners, and permit individuals with prior drug-related offenses to serve as peer support specialists to individuals receiving SUD treatment.[36]

Care Coordination Models

Many emerging models of care for women of reproductive age include a care coordination component that focuses on supporting women as they navigate services across fragmented systems.[37, 38] A well-coordinated system of care that includes connections across providers in reproductive health and MH/SUD treatment is essential for achieving positive outcomes for pregnant or postpartum women with MH/SUD. Some care coordination models in rural communities can be found in federally qualified health centers, critical access hospitals, rural health clinics, or patient-centered medical homes.

The traditional care coordination model delivers care by assigning individuals to a care coordinator who keeps patients connected to medical care and MH/SUD treatment and recovery, and helps them gain access to other services that support their health, such as social services, housing, food, and transportation. Care coordination in rural areas may differ from care coordination in urban settings. Care coordinators in a rural community can help women access services from an OB-GYN practice that sees patients in a rural clinic, and then conduct follow-up home visits. In rural communities, community health workers often serve as care coordinators.

The Co-location model includes an array of professionals and paraprofessionals, such as OG/GYN and primary care physicians, nurses, social workers, behavioral health specialists and community health workers in one location, thereby facilitating care for women with MH/SUD.

An additional benefit of the co-location model is that it allows women to seek MH/SUD services discreetly, thereby reducing stigma.

> *The **West Virginia** Public Health Department implemented a colocation model that integrated SUD treatment for pregnant and postpartum women into OB/GYN care in rural Appalachia. The Drug-Free Moms and Babies program was a collaborative of the health department, a hospital-based delivery unit, a community clinic with co-located care, and two OB-GYN clinics. Each site was required to leverage a multidisciplinary team (behavioral health, OB-GYN, and community providers); use the Screening, Brief Intervention, and Referral to Treatment Model (SBIRT); employ peer recovery coaches; and align with local and state-level efforts to address SUD in pregnant women. Sites could customize their treatments to fit the needs of their population and service system; however, the above four approaches to treatment were consistently followed by all. Study results demonstrated positive clinical outcomes for women and infants across the study cohort. As a result, this integrated care model was expanded across the state.*

The Hub-and-spoke model delivers care through a centralized anchor establishment (hub) that provides expertise and consultation to a network of feeder sites, which provide direct services to patients.

> ***Pennsylvania's** Centers of Excellence (COEs) for Opioid Use Disorder prioritize treatment for pregnant women with OUD. COEs are designated centers ("hubs") that serve as health homes for individuals with Medicaid who have OUD. The model provides integrated primary and behavioral health care, and intensive care coordination with other entities ("spokes"), such as hospitals, health care providers, correctional facilities, law enforcement, courts, and emergency medical services. Pennsylvania has 45 COEs, located in both urban and rural areas.*

The Telehealth model includes provider-to-provider consultation and/or delivery of MH/SUD care through virtual technology. This promising model can expand access to, and integration of specialty care, particularly in rural areas that are harder to reach or have an insufficient local pool of treatment resources. Telehealth is an important tool for maintaining patient access to treatment while minimizing the risks associated with COVID-19. Many federal regulations have been relaxed during the COVID-19 pandemic to facilitate the use of telehealth, including allowing providers to use non-HIPAA compliant technologies, making it easier to rapidly transition to telehealth.

> ***New York*** *implemented a telehealth program in 2019, aimed at addressing challenges for women of reproductive age women and providers in rural areas. Regional perinatal centers will receive state funding to expand access in rural areas, whereby OB-GYN providers will participate in a teleconsultation program modeled after Project ECHO. A state-level perinatal telehealth workgroup will explore needs and gaps for rural perinatal providers.*[39]
>
> *The* ***Florida*** *Department of Health has used a Health Resources and Services Administration cooperative agreement for the development of a sustainable screening and treatment model to improve maternal mental health outcomes. Project goals include increasing the use of telehealth for MH/SUD screening, referral, and treatment for women in rural areas and expanding telehealth use for training of healthcare and community mental health providers in MH/SUD.*[40]

Promising Innovations for Increasing Access to MAT in Rural Areas

Traditional care coordination, co-location, and hub-and-spoke models are also relevant to the design and delivery of MAT programs in rural areas. Some adaptations of these models for OUD treatment of pregnant women in rural areas are included in the examples that follow.

> ***Michigan's*** *2020 Title V state plan includes specific strategies for addressing pregnant and postpartum women with OUD in rural areas through the state's Regional Perinatal Quality Collaboratives. The Western Michigan Quality Collaborative has a dual emphasis on increasing substance use screening in pregnant women and using evidence-based home visiting services. The design of this initiative was informed by data analysis of the geographic areas with poorer birth outcomes and more cases of infant morbidity. Michigan is also building capacity to provide treatment for women with OUD through cross-sector partnerships. In addition, the rural Upper Peninsula region is working on a care coordination system in which pregnant women receive prenatal care and MAT in a coordinated visit on the same day.*[41]
>
> *Bighorn Valley Health Center in rural* ***Montana*** *uses a nurse navigator model to support pregnant and postpartum women with OUD. Nurse navigators perform community outreach to identify women who are disconnected from the health care system. The navigators share information about MAT so that women in need can connect to a provider. Additional partnerships help women access evidence-based interventions. For example, SafeCare and Parents as Teachers can help women strengthen parenting skills. This service combination allows women to receive both MAT and parenting support.*

Federal Funding for MH/SUD Services for Women in Rural Communities

The HRSA and the Center for Medicare and Medicaid Innovation are two federal agencies that have funded programs in rural areas to support and advance MH/SUD care for women of reproductive age. Examples include:

- HRSA's **Rural Maternity and Obstetrics Management Strategies (RMOMS)** program, prioritizes the development of diverse stakeholder groups in rural settings that design and implement coordinated OB/GYN and MH/SUD care using telehealth and other innovative services.
- The multi-year **Rural Communities Opioid Response Program (RCORP),** supported by HRSA, addresses barriers to access in rural communities related to SUD,

including OUD. RCORP funds multi-sector consortia to enhance their ability to implement and sustain SUD/OUD prevention, treatment, and recovery services in underserved rural areas.

- HRSA's **Screening and Treatment for Maternal Depression and Related Behavioral Disorders (MDRBD)** program, supports seven states in integrating behavioral health into maternal health care via telehealth. Specifically, these new or expanded telehealth access programs offer real-time psychiatric consultation, care coordination support, and training to front-line health care providers in a state's specified regions, including in rural and underserved areas.[42]
- **The Maternal Opioid Misuse (MOM) program,** funded by the Center for Medicare and Medicaid Innovation, uses a multi-pronged strategy to address fragmentation of care for pregnant and postpartum women with OUD. Working with ten states (both rural and urban), the MOM program fosters the delivery of coordinated and integrated physical and behavioral health care, and critical wrap-around services, and seeks to strengthen capacity and infrastructure to support care delivery for this population.

Policy Options

With their knowledge and understanding of the needs of the MCH populations in their states, Title V programs are well positioned to educate state policymakers on opportunities to improve access to MH/SUD services for women of reproductive age in rural areas. These include:

- **Incentivizing maternal health and behavioral health providers to practice in rural areas.** The shortage of providers in rural communities can lead to wide gaps in access to care, treatment, and services. To address this, many state governments offer incentives to providers to serve in rural underserved areas. These incentives take the form of loan forgiveness, subsidies, tax credits, and flexible work hours.
- **Expanding training of behavioral health providers in rural areas.** Expanding MH/SUD training opportunities for rural health care providers is an important policy lever to equip providers to treat women in a culturally appropriate manner. Several universities and medical schools have created rural training tracks.
- **Supporting the development and implementation of state collaborations and partnerships related to MH/SUD services for women of reproductive age.** To address the complex health care challenges in rural health where resources and personnel are scarce, collaborations and partnerships are essential. Partnerships can advance care coordination, leverage training opportunities, and improve information sharing.
- **Extending pregnancy Medicaid coverage for women to 12 months postpartum**. Women who become pregnant and meet income thresholds in their state may qualify for Medicaid temporarily; however, in most states, Medicaid coverage ends 60 days postpartum. Extending Medicaid is a promising policy lever for expanding access to MH/SUD care for women. States increasingly recognize that having health insurance during the postpartum period is critical for addressing inequities and high rates of maternal mortality and morbidity. Nearly half of states are submitting, or are considering submitting, waiver applications to CMS to extend Medicaid to this population.[43]
- **Implementing the Medicaid expansion in states that have not adopted it.** Rural populations are disproportionately represented in the 12 states have not adopted the Medicaid expansion, making public insurance less accessible for women and men in these communities. There is increasing evidence about the positive impact of Medicaid coverage for women of reproductive age and their families. In rural states where Medicaid expansion has not occurred and where postpartum Medicaid coverage ends quickly, women are excluded from a health care system at a time when they are medically vulnerable. Health care access is critical to maintaining women's overall well-being, especially for those living in rural areas with MH/SUD.

Conclusion

The current literature contains limited data about the prevalence of MH/SUD among women of reproductive age women in rural areas. Despite the lack of research, rural states and communities continue to develop solutions for models of care and policy frameworks. Recent boosts in funding for programs and policies that address OUD in women may serve to bolster innovation more broadly. Additional investments are needed to implement and evaluate programs and practices appropriate for women of reproductive age with MH/SUD in rural settings. Practices should be cost effective, minimally burdensome to the patient and provider, and should lead to positive clinical outcomes.

Although rural communities share many of the same challenges, each community is distinct and should be understood in terms of its unique culture, resources, economy, demographics, and geography. Solutions that show positive outcomes within the urban or suburban context may not easily translate to rural communities. In some instances, rural communities have devised innovations to bring new and emerging practices to replace or revive struggling hospital systems or to develop MH/SUD continuums of care for women, such as those highlighted in this issue brief. It is critical for policymakers and funders to develop meaningful collaborations with women in rural communities, health care systems and MCH programs to co-create policy, program design, and funding opportunities that align with the unique resources and needs within the rural context. ■

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About AMCHP

The Association of Maternal & Child Health Programs is a national resource, partner, and advocate for state public health leaders and others working to improve the health of women, children, youth, and families, including those with special health care needs. AMCHP's members come from the highest levels of state government and include directors of maternal and child health programs, directors of programs for children with special health care needs, and other public health leaders who work with and support state maternal and child health programs.

About Georgia Health Policy Center

The Georgia Health Policy Center (GHPC), housed within Georgia State University's Andrew Young School of Policy Studies, provides evidence-based research, program development, and policy guidance on local, state, and national levels to improve health status within communities. GHPC focuses on solutions to the most complex issues facing health and health care including: behavioral health, long-term services and supports, health system transformation, children's health, and the development of rural and urban health systems. For more than 25 years, the center has worked in more than 1,000 communities throughout Georgia and in all 50 states to achieve health improvement.

End Notes

[1]National Institute of Mental Health. (2020). Retrieved from: https://www.nimh.nih.gov/health/statistics/mental-illness.shtml

[2]Centers for Disease Control and Prevention. Prevalence of Selected Maternal and Child Health Indicators for all PRAMS sites, Pregnancy Risk Assessment Monitoring System (PRAMS), 2012–2015. Retrieved from: https://www.cdc.gov/prams/prams-data/mch-indicators/states/pdf/2015/PRAMS-All-Sites-2012-2015-508.pdf

[3]Moore, T. & Pytlarz, J. (2013). Untreated psychiatric disorder in pregnancy: Weighing the risks. *Mental Health Clinician. 3*(2), 83–87. Retrieved from: https://mhc.cpnp.org/doi/full/10.9740/mhc.n163635

[4]Substance Abuse and Mental Health Services Administration. (2019). Key Substance Use and Mental Health Indicators in the United States: Results from the 2018 National Survey on Drug Use and Health. Retrieved from: https://www.samhsa.gov/data/report/2018-nsduh-annual-national-report

[5]Ko, J.Y., D'Angelo, D.V., Haight, S.C. (2020). Vital Signs: Prescription Opioid Pain Reliever Use During Pregnancy — 34 U.S. Jurisdictions, 2019. *Morbidity and Mortality Weekly*. Retrieved from: http://dx.doi.org/10.15585/mmwr.mm6928a1external icon

[6]Kaiser Family Foundation (2020): Opioid Overdose Deaths in 2018 by Gender. Retrieved from: https://www.kff.org/other/state-indicator/opioid-overdose-deaths-by-gender

[7]Partnership to End Addiction. (2018). Meth Use is Rising Among People Who Use Opioids. Retrieved from: https://drugfree.org/drug-and-alcohol-news/featured-news-meth-use-rising-among-people-use-opioids/

[8]Substance Abuse and Mental Health Services Administration. (2019). Key Substance Use and Mental Health Indicators in the United States: Results from the 2018 National Survey on Drug Use and Health. Retrieved from: https://www.samhsa.gov/data/report/2018-nsduh-annual-national-report

[9]Agency for Healthcare Research and Quality. Drug overdose deaths involving any opioid per 100,000 resident population per year, United States, 1999–2017. Retrieved from: https://nhqrnet.ahrq.gov/inhqrdr/opioids/opioids#measureData

[10]Cohen Veterans Network and the National Council for Behavioral Health. (2018) America's Mental Health, 2018. Retrieved from: https://www.cohenveteransnetwork.org/wp-content/uploads/2018/10/Research-Summary-10-10-2018.pdf

[11]Fine Maron, D. (2017). Maternal health care is disappearing in rural America. *Scientific American*. Retrieved from: https://www.scientificamerican.com/article/maternal-health-care-is-disappearing-in-rural-america

[12]Phelan, S. & Wetzel, L. (2018). Maternal death in rural America. *Contemporary OB/GYN, 64*(8). from: https://www.contemporaryobgyn.net/obstetrics-gynecology-womens-health/maternal-death-rural-america

[13]U.S. Department of Health and Human Services; Office of Inspector General. (2020). Geographic Disparities Affect Access to Buprenorphine Services for Opioid Use Disorder. Retrieved from: https://oig.hhs.gov/oei/reports/oei-12-17-00240.pdf

[14]Khozhimannil, K. et al. (n.d.). Framing maternal health in rural America. Retrieved from: https://www.cms.gov/About-CMS/Agency-Information/OMH/equity-initiatives/rural-health/11-Maternal-Health-Forum-Framing-Maternal-Health-in-Rural-America.pdf

[15]American College of Obstetricians and Gynecologists. (2014). Health disparities in rural women. Retrieved from: https://www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2014/02/health-disparities-in-rural-women

[16]Centers for Medicare and Medicaid Services. (2019). *Improving access to maternal health care in rural communities*. Issue Brief. Retrieved from https://www.cms.gov/About-CMS/Agency-Information/OMH/equity-initiatives/rural-health/rural-maternal-health

[17]Weinreb, et al. (2014). What happens to mental health treatment during pregnancy? Women's experience with prescribing providers. *Psychiatric Quarterly,* 85, 349-355, doi: 10.1007/s11126-014-9293-7

[18]Byatt, N., Cox, L., Moore Simas, T. A., Kini, N., Biebel, K., Sankaran, P., Swartz, H.A. & Weinreb, L. (2018). How obstetric settings can help address gaps in psychiatric care for pregnant and postpartum women with bipolar disorder. *Archives of Women's Mental Health, 21*(5), 543–551. doi:10.1007/s00737-018-0825-2

[19]University of North Carolina at Chapel Hill, Sheps Center for Health Services Research. (2019). Rural hospital closures: More information. Retrieved from: https://www.shepscenter.unc.edu/programs-projects/rural-health/rural-hospital-closures/rural-hospital-closures

[20]Kozhimannil, K. B., Hung, P., Henning-Smith, C., Casey, M. M. & Prasad, S. (2018). Association between loss of hospital-based obstetric services and birth outcomes in rural counties in the U.S. *JAMA, 319* (12), 1239-1247.

[21]Ibid

[22]Wishner, J., et al. (2018). A look at rural hospital closure and implications for access to care. Issue Brief. Retrieved from: https://www.kff.org/medicaid/issue-brief/a-look-at-rural-hospital-closures-and-implications-for-access-to-care/view/footnotes/#footnote-192706-18

[23]American College of Obstetricians and Gynecologists. (2014). *Health disparities in rural women.* Retrieved from: https://www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2014/02/health-disparities-in-rural-women

[24]Rural Health Information Hub. *Health professional shortage areas: Mental health.* Retrieved from: https://www.ruralhealthinfo.org/charts/7

[25]Kaiser Family Foundation. *Mental health care professional shortage areas.* Retrieved from: https://www.kff.org/other/state-indicator/mental-health-care-health-professional-shortage-areas-hpsas/?currentTimeframe=0&sortModel=%7B%22colId%22:%22Location%22,%22sort%22:%22asc%22%7D

[26]National Council for Behavioral Health. (2018). *New federal analysis of behavioral health care workforce released.* Retrieved from: https://www.thenationalcouncil.org/capitol-connector/2018/12/new-federal-analysis-of-behavioral-health-care-workforce-released

[27]American Society of Addiction Medicine. (2019). *More training needed to address addiction workforce shortage.* Retrieved from: https://www.asam.org/docs/default-source/advocacy/asam-training-demo-one-pagerb1ff289472bc604ca5b7ff000030b21a.pdf?sfvrsn=264348c2_2

[28]Buche, J., Beck, A., Singer, P. (2016). Behavioral Health Workforce Challenges: Recruitment, Retention, and Work Environment; Health Workforce Policy Brief. Behavioral Health Research Workforce Center; University of Michigan. Retrieved from: http://www.behavioralhealthworkforce.org/wp-content/uploads/2016/10/FA2P1_Workforce_Challenges_Policy_Brief.pdf

[29]Council on Patient Safety in Women's Health Care. (2017). Obstetric care for OUD bundle. Retrieved from: https://safehealthcareforeverywoman.org/wp-content/uploads/2017/11/Obstetric-Care-for-OUD-Bundle.pdf

[30]Office of the Assistant Secretary for Planning and Evaluation. (2019). State policy levers for expanding family-centered medication-assisted treatment. Retrieved from: https://aspe.hhs.gov/basic-report/state-policy-levers-expanding-family-centered-medication-assisted-treatment

[31]Substance Abuse and Mental Health Services Administration. Center of Excellence for Integrated Health Solutions. Retrieved from: https://www.integration.samhsa.gov/workforce/CMS_letter_with_date.pdf

[32]Kozhimannil, KB, Hardelan, R. (2015). How Medicaid Coverage for Doula Care Could Improve Birth Outcomes, Reduce Costs, And Improve Equity. *Health Affairs*. Retrieved from: https://www.healthaffairs.org/do/10.1377/hblog20150701.049026/full

[33]Wicklund, E. (2019). Montana will use telehealth to improve maternal care management. Telehealth News. Retrieved from: https://mhealthintelligence.com/news/montana-will-use-telehealth-to-improve-maternal-care-management

[34]Association of Maternal & Child Health Programs. (2017). Quality Improvement in Maternity Care via Project ECHO. Retrieved from: http://www.amchp.org/programsandtopics/BestPractices/InnovationStation/ISDocs/IS_Project%20ECHO.pdf

[35]Association of State and Territorial Health Officials. (n.d.) Utilizing community health workers to improve access to care for maternal and child populations: Four state approaches. Issue Brief. Retrieved from: https://www.astho.org/Maternal-and-Child-Health/AIM-Access-CHW-Issue-Brief

[36]National Conference of State Legislatures and the Association of State and Territorial Health Officials. (2020). States continue to enact legislation to address health care workforce shortages. Scope of Practice Policy. Retrieved from: http://scopeofpracticepolicy.org/welcome/states-continue-to-enact-legislation-to-address-health-care-workforce-shortages

[37]Ibid

[38]Centers for Medicare and Medicaid Services. (2019). Improving access to maternal health care in rural communities. Issue brief. Retrieved from: https://www.cms.gov/About-CMS/Agency-Information/OMH/equity-initiatives/rural-health/09032019-Maternal-Health-Care-in-Rural-Communities.pdf

[39]Wicklund, E. (2019). New York launches telehealth initiative to improve perinatal care. *Telehealth News*. Retrieved from: https://mhealthintelligence.com/news/new-york-launches-telehealth-initiative-to-improve-perinatal-care

[40]Health Resources and Services Administration. (2018). Screening and Treatment for Maternal Depression and Related Behavioral Disorders Grant Program. Retrieved from: https://www.hrsa.gov/about/news/press-releases/hrsa-awards-12-million-maternal-child-mental-health-programs#behavioral

[41]Health Resources and Services Administration. (2020). State action plan: Perinatal/infant health—application year - Michigan 2020. Retrieved from: https://mchb.tvisdata.hrsa.gov/Narratives/PlanForTheApplicationYear2/159db3f2-bebd-41c9-95bd-99e635cfa5e8

[42]Health Resources and Services Administration. (2018). Screening and Treatment for Maternal Depression and Related Behavioral Disorders Grant Program. Retrieved from: https://www.hrsa.gov/about/news/press-releases/hrsa-awards-12-million-maternal-child-mental-health-programs#behavioral

[43]Equitable Maternal Health Coalition. (2020). Continuing Medicaid/CHIP Postpartum Coverage.

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