PolicyLab

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Centers for Medicare and Medicaid Services
U.S. Department of Health and Human Services

SUBJECT: CHOP PolicyLab response to "Request for Information Regarding Maternal and Infant Health Care in Rural Communities"

Dear Ms. Cropper:

As pediatricians and child health researchers at PolicyLab at Children's Hospital of Philadelphia, we take this opportunity to respond to the "Request for Information Regarding Maternal and Infant Health Care in Rural Communities," and to offer our recommendations.

We welcome the efforts CMS is undertaking with regards to health care in rural areas, including the Rethinking Rural Health Initiative and the publication of the comprehensive brief "Improving Access to Maternal Health Care in Rural Areas" in September 2019.[1] In this letter, we draw on our relevant research and expertise to expand on issues already identified by CMS in the brief and we identify additional barriers and solutions relevant to improving maternal and infant health in rural areas.

1. **What barriers exist in rural communities in trying to improve access, quality of care, and outcomes in prenatal, obstetrical and postpartum care?**

   We agree with CMS's identification of many barriers to improving maternal health in the brief Improving Access to Maternal Health Care in Rural Communities. In particular, we wish to highlight the following two issues discussed in the brief:

   a. **Mental and Behavioral Healthcare Access**

      We agree that addressing maternal mental health and substance use is vital throughout pregnancy and the postpartum period.[1] We also agree that workforce shortages pose significant barriers in access to care in rural areas, and that leveraging a range of health and social services providers is essential.[2] As highlighted in the brief, better coordination between physical and mental health services is needed. We also encourage CMS to support primary care physicians and community health centers who are increasingly treating substance use disorders in rural areas.[3,4]

Separately, evidence-based and best practice treatment models for new mothers experiencing substance use disorders often involve coordinated care for both the infant and the mother.[5-6] Such "dyadic" or family based models can be challenging to implement and fund and require specialized training.[7] When offering guidance on mental and behavioral health services, we encourage CMS to emphasize a broad definition of "medical necessity" and explicitly identify dyadic services as allowable.

b. Loss of maternal Medicaid coverage after 60 days

We agree that addressing the Medicaid coverage gap for new mothers after birth is essential. Coverage is vital to ensuring positive health outcomes for mothers and children, and the health consequences of the Medicaid coverage gap have been well studied.[8-9] Even in states that have expanded Medicaid, where mothers could theoretically acquire their own Medicaid coverage, mothers may face significant barriers in enrollment, particularly given the physical and emotional demands of the postpartum period.[9] In states that have not expanded Medicaid, women may be limited to plans on the exchanges, which may be unaffordable and pose their own logistical challenges.[10,11] We emphasize the importance of continuous Medicaid coverage for new mothers through one year after birth.

In addition to the barriers already identified by CMS in their brief, we wish to highlight the following issues:

c. Social Isolation

In addition to mental health and substance use challenges, we emphasize the unique role social isolation plays in both maternal and child health outcomes for families living in rural communities.

For the past decade, PolicyLab has collaborated with the Pennsylvania Office of Child Development and Early Learning to evaluate the Maternal, Infant, and Early Childhood Home Visiting (MIECHV) program in Pennsylvania. Our research documents the health-related challenges of home visiting clients living in rural communities.[12] Our evaluation has also identified how social isolation is amplified in rural locations.[12] Rural home visiting clients describe how barriers such as limited transportation and a lack of local institutions hamper their ability to become involved in community or social groups and to connect to resources to support new mothers.

Compared to their urban peers, rural clients are more likely to identify issues related to loneliness, depression, disinterest in leaving home and having few peer supports. Rural clients also express concern about social isolation impacting their child's development, noting that socially isolated children struggle to adjust to environments outside of their immediate home and experience increased risk for developmental delays.[12] Social isolation can contribute to maternal depression, but we emphasize that even for mothers who are not diagnosed with depression, social isolation poses challenges to mothers and children in rural communities.

d. Domestic Violence

An estimated 5.5% of women annually experience domestic violence in the United States.[13] Rates of intimate partner violence are similar in rural and urban communities, but women in rural areas have less access to support and victim services and they face more chronic, severe and fatal intimate partner violence than women in urban or suburban settings.[14]

In our evaluation of the Maternal, Infant, and Early Childhood Home Visiting (MIECHV) program in Pennsylvania, we learned about the many detrimental effects of domestic violence. Domestic violence profoundly impacts women's health, well-being, economic stability and engagement in community health and social services.[15-17] Children in families impacted by domestic violence are at increased risk of safety concerns, including child abuse and neglect, and adverse health and developmental impacts from witnessing domestic violence.[18-23] Pregnancy and new motherhood are particularly vulnerable times for women in terms of exposure to violence.[24]

Community-based organizations and primary care practices are increasingly embracing their role as trauma-informed providers who can help identify and refer patients affected by domestic violence. These efforts have been expedited by CMS guidance and opportunities through the Centers for Medicare and Medicaid Innovation (CMMI). For instance, CMMI's Accountable Health Communities Model focuses on addressing the social determinants of health by encouraging and studying clinical-community linkages.[25]

While stronger linkages are essential, rural areas also often have limited availability of emergency housing, trauma-informed mental health supports and similar services needed by families experiencing domestic violence. This can constrain the ability of providers to provide effective referrals and support.

e. Environmental Contaminants and Environmental Justice

We commend the recognition of social determinants of maternal health beyond the health care system in the CMS Issue Brief. We agree that barriers to maternal health arise from structural inequality and racism, and these include environmental racism. We encourage further consideration of the impact of environmental contaminants on maternal health and birth outcomes, particularly for minority women in rural communities.

Environmental contaminants pose serious risks during pregnancy. For instance:

- Pesticides from large scale agricultural production contribute directly to adverse birth outcomes such as low birth weight.[25-28]
- Animal feeding operations pollute groundwater by increasing nitrate levels, which in turn contribute to higher rates of miscarriages, birth defects, and low blood oxygen in infants (blue baby syndrome). [29-30]
- Living near unconventional natural gas development increases the likelihood of high risk pregnancies and premature birth.[31]
- Proximity to mountain top strip mining increases rates of birth defects.[32]
- Vicinity to heavy metals mining increases birth defects and neurodevelopmental problems. [33]

Environmental exposure can result from both active industry as well as from contaminants left by historical production (for instance, abandoned mines).[34-35]

Within rural areas, racial and ethnic minority women are at particular risk of adverse environmental exposures. For instance, abandoned heavy metal and uranium mines pollute groundwater in many tribal areas, and pregnant Native American women exposed to arsenic from mines have been shown to have higher rates of oxidative stress.[36-37] Separately, women working in agriculture are more likely to have preterm births and deliver low birth weight infants.[38] The majority of hired farmworkers in the United States are of Latinx origin.[39] Particularly in the rural South, large scale agricultural production, animal feeding lots and toxic waste dumping are more likely to be cited in or near Black communities.[40]

We believe the maternal and child health impacts of environmental injustices fit squarely in a social determinants of maternal health framework. We urge further attention to the impact on minority populations resulting from ongoing and past agricultural and industrial activities in rural communities.

2. What opportunities are there to improve the above areas (i.e., access, quality and outcomes)?

a. Leveraging pediatric settings for maternal care

52% percent of pregnancy related deaths occur after the day of delivery, and untreated or poorly managed maternal mental health conditions and substance use disorders can lead to increased maternal mortality as well as adverse outcomes for children.[41-44] Postpartum care for new mothers is essential, but 10-40% of mothers do not complete a postpartum visit.[1]

For many new mothers, their *primary contact with the health care system comes through visits to the pediatrician* with their infant. In recent research at PolicyLab, we examined the Medicaid claims of nearly 600,000 mothers and their infants in 12 diverse states, including states that are predominantly rural.[45] We determined that infant-mother pairs were more likely to receive preventive care in pediatric settings than in adult settings. While 38% of mother-infant pairs had no *adult* preventive visits, 90% of mother-infant pairs had at least one preventive *pediatric* visit.[45]

Incorporating maternal screenings and preventive services into pediatric settings could help overcome health access barriers in rural areas, including long distances to services, workforce shortages, and the need for childcare. The American Academy of Pediatrics' *Bright Futures Guidelines* already encourages pediatricians to support caregivers through mental health screenings, smoking cessation support, and essential vaccines.[46] In most states, Medicaid reimburses providers for maternal depression screenings during a well-child visit.[47]

We encourage efforts to support intergenerational family services in pediatrics given the robust evidence that pediatrics represents a significant health care touch-point for mothers in the postpartum period.

b. Stronger coordination across health systems

We believe that many barriers to maternal and infant health in rural areas could be addressed by better coordination across the range of systems that support maternal and infant health, including OB-GYN, adult care systems, behavioral health settings, pediatrics, social service agencies and other community services. Since rural areas have experienced extensive closures and workforce shortages across most of these systems, ensuring that those systems that do exist are fully leveraged is all the more vital.[48-50]

Without better integration, providers like pediatricians may provide duplicative services while at the same time making referrals that prove ineffective.[45] For

instance, recent PolicyLab research found that nearly 90% of mothers with positive postpartum depression screens and referrals through pediatrics did not successfully connect to mental health services within six months.[42] Traditional screening and referral practices may not be effective on their own.

Some promising models already exist. Funding streams that support value-based payment and patient-centered medical homes (PCMH) may help integrate mental health services and strengthen connections to community resources. For instance, PCMH dollars have been used to support care coordination within pediatrics for children with complex medical needs.[51] Similarly, as highlighted in the CMS brief, the Center for Medicare and Medicaid Innovation's (CMMI) Maternal Opioid Misuse (MOM) model seeks to address fragmented care and lack of access to services through pregnancy and the postpartum period.[52] We encourage CMS to continue to promote such models.

3. What initiatives, including community-based efforts, have shown a positive impact on addressing barriers or maximizing opportunities?

a. Evidence-Based Home Visiting

We appreciate that CMS has emphasized the need for a diverse health and social workforce, including midwives, community health workers, doulas, case managers, social workers, and home visitors. As evaluators of the Maternal, Infant, and Early Childhood Home Visiting (MIECHV) program in Pennsylvania, we wish to highlight the particular role that home visitors can play in addressing rural health needs. In-home services can reduce many barriers to maternal health in low-density, under-resourced communities, including lack of transportation and limited access to many health care services.[12] With federal and state financing, evidence-based home visiting services (HomVEE) are implemented at the local level and support rural communities by building the capacity of both individual families and the broader community.[53]

Rural home visitors deliver parenting and health-related education, conduct health and developmental screenings (including maternal depression and intimate partner violence screening), and provide social support and resource connectivity to families. Our evaluation has shown that home visitors also often promote broader community well-being. For instance, home visitors have organized social events and Parent Policy Councils (which promote civic engagement to help families advocate for improved resources and services).[12]

Home visiting services in rural communities have special implementation challenges, including workforce retention and transportation costs.

We recommend the development of a Medicaid coverage strategy for home visiting that supports the full cost of implementation and delivery. A Medicaid strategy should also allow for flexibility of telehealth visits.

HHS should also help rural areas attract and sustain a qualified workforce of home visitors. This could include expanding financial incentives, such as the education and loan repayment services provided by the Health Resources and Services Administration (HRSA), and ensuring that scope of practice laws are standardized to enable home visitors to work across state lines.[54] We encourage investment of higher education opportunities in early childhood education to include home visiting systems that could incentivize recruitment and retention to rural communities in need of qualified staff.

b. Remote Technology and Services

The CMS Issue Brief highlights the role of telehealth in overcoming rural access to care. We welcome the potential of telehealth services, and Children's Hospital of Philadelphia is expanding its use of telehealth to address service gaps for rural pediatric patients with complex medical needs. However, we emphasize caution as telehealth gains increasing interest. First, while telehealth can provide valuable support, many services cannot effectively or safely be provided outside of in-person settings. For instance, mothers experiencing substance use disorders or who are at high risk of suicide have complex needs and will still require more intensive, in-person services.

In addition, broadband access can be a significant challenge in rural areas. For example, here in Pennsylvania, less than ten percent of the state meets the FCC's minimum speed for broadband connectivity, far lower than official estimates provided by the FCC.[55-56] Lack of broadband poses limitations to telehealth services in rural communities.[57] While some agencies (including the FCC and USDA) have attempted to address the digital divide, gaps in internet access remain and there is little coordination between agencies.[58-59]

While internet access is essential, we agree that remote technologies can help address service gaps in rural areas. We wish to highlight the following promising interventions:

i. Social media interventions to provide support to caregivers

In addition to the broad categories of telehealth interventions described in the CMS Issue Brief, services that leverage social media could be valuable. Social media interventions could be particularly valuable in rural areas, as they could help overcome both geographic barriers and social isolation. At

PolicyLab, we have adapted a parenting intervention to be delivered on Facebook to address needs of mothers with postpartum depression. In a pilot study, mothers were engaged in the parenting intervention and showed reduced depression symptoms and improved parenting competence.[60] We are further testing this intervention in a larger study.

ii. Telephonic consultation with specialists

We agree with the promise of virtual consultations between local providers and external specialists. Consultations that utilize video (such as the Medical University of South Carolina program described in the CMS Issue Brief) will often be necessary in complex situations such as high risk pregnancies. However, while video interactions are best, video consultations may be logistically unfeasible in areas with poor internet access. Telephonic consultation may provide an important access point and should also be supported. Particularly given the recent increased use of telemedicine as a result of the COVID-19 pandemic, we welcome that CMS has allowed reimbursement for telephonic consultation.

One promising telephonic model is the Massachusetts Child Psychiatry Access Program for Moms (MCPAP for Moms).[61] This model provides pediatricians, obstetricians and other providers with trainings and toolkits related to depression screening, triage and referral and treatment options. Providers can also receive additional technical support through real-time telephonic consultation with perinatal psychiatrists. Preliminary results indicate that the program is feasible, well received by providers and may increase uptake of services by mothers with postpartum depression.[62]

4. How can CMS/HHS support these efforts?

Building off of the evidence we've put forward, in summary we suggest that CMS/HHS do/explore the following to improve maternal health in rural areas:

a. Expand mental and behavioral health services in rural areas

b. Support efforts to extend Medicaid coverage for all pregnant women through one year after birth

c. Expand efforts to address domestic violence in rural settings

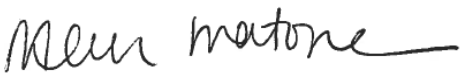
d. Encourage financing that supports coordination across systems, including pediatric settings

e. Support Evidence-Based Home Visiting

f. Encourage creative uses of telehealth and remote technology where appropriate, while recognizing limitations posed by poor broadband access and emphasizing the continuing necessity of in-person services for intensive needs

Thank you for taking the time to consider our recommendations, and we welcome opportunities to continue to engage with you.

Sincerely,



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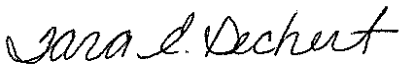

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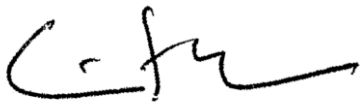

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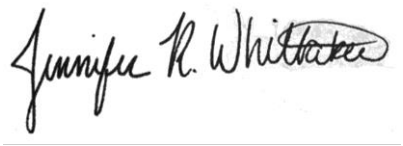

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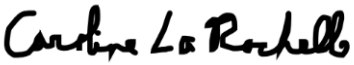

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