U.S. Department of Health & Human Services
HRSA
Federal Office of Rural Health Policy

Improving Rural Maternal Care through Network Models: The RMOMS Program

Importance of Rural Maternal Health

All women of reproductive age should have access to high-quality preventive, prenatal, and maternal care to ensure healthy pregnancies, birth outcomes, and overall health status. However, the more than 28 million women of reproductive age living in rural areas in the United States face increasing challenges in accessing this care.[1] Women in rural areas confront accelerating rates of rural hospital closure and numerous social and economic barriers to care, such as poor transportation options and food insecurity. Compared to their urban counterparts, rural women face higher rates of poverty, lower health literacy, and lower educational levels.[2,3] As a result, rural women experience higher levels of maternal morbidity and mortality and other negative maternal and child health outcomes.[4] Adding to these challenges, the COVID-19 pandemic has increased the prevalence of negative health outcomes and racial and geographic disparities for women across the country.[5,6] These barriers to health highlight the need for innovative, flexible models of maternity care that offer high-quality care and address the unique barriers facing rural mothers.

> Rural hospital and obstetrics unit closures disproportionately impact communities with larger shares of Black patients. (Hung et al).

RMOMS Program Background

The Health Resources & Services Administration (HRSA) through the Federal Office of Rural Health Policy (FORHP) and the Maternal and Child Health Bureau (MCHB) awarded three maternal care networks with four-year cooperative agreements under the Rural Maternity and Obstetrics Management Strategies (RMOMS) program. Spanning from September 2019 to August 2023, RMOMS aims to increase access to maternal and obstetrics care in rural communities and ultimately improve maternal and neonatal outcomes through four focus areas:

1) Obstetrics service aggregation: The consolidation and coordination of low-utilization services across providers can improve service quality and provider financial viability.
2) Care coordination along the continuum of care: Awardee networks can improve care continuity and provide comprehensive services to their patients by engaging multiple clinical and support service providers and coordinating care across these entities.
3) Telehealth and specialty care: Telehealth can reduce costs and barriers to care, and increase access to maternal health specialists for higher-level care and better health outcomes.
4) Financial sustainability: Cost savings generated by these initiatives and the development of new payment models with Medicaid and other payers can improve provider financial sustainability and thus sustain access to care in the long run.[7]

In the future, the RMOMS program may serve as a model for other rural health networks by offering a replicable and sustainable path to coordinated, high-quality services for at-risk mothers.

MEET THE AWARDEES

The RMOMS awardees include the Missouri Bootheel Perinatal Network Project (BPN), the New Mexico Rural OB Access and Maternal Services (ROAMS) Network, and the Texas-RMOMS Comprehensive Care Maternal Care Network.

Missouri Bootheel Perinatal Network (BPN)

BPN aims to improve maternal and infant health in Dunklin, Mississippi, New Madrid, Pemiscot, Scott, and Stoddard counties. The six target counties, all located within the Bootheel region in southeastern Missouri, are home to over 30,000 women of reproductive age.[8] Women living in the Bootheel experience lower rates of adequate prenatal care, lower rates of timely initiation of prenatal care, and higher rates of Caesarean sections than state and national averages.[9] Two major hospitals discontinued obstetrics services in 2014 and 2018, leaving many women in the region with no local services.

> "[Partners] are really staying at the table because they are seeing the value in using resources more efficiently instead of throwing in another resource that ultimately is going to cause them more competition."
> – BPN network leadership

BPN, which is led by St. Francis Medical Center, includes three rural hospital systems, six health departments, three behavioral health agencies, three support service agencies (including two home visitation programs), a Federally Qualified Health Center (FQHC) network, and MO HealthNet (Medicaid). SSM Health Perinatal Center, located in St. Louis, provides training and technical support. These partners all support BPN's overarching goal to increase access to prenatal, labor and delivery, and postpartum services for mothers and babies. For more information, see the Annual Report and the BPN Fact Sheet, which are available on the HRSA RMOMS Program website.

BPN's primary activities during the first implementation year (September 1, 2020 to August 31, 2021) included:

- Hired a system care coordinator who conducts risk assessments, follows up with patients, and facilitates referrals across the entire network;
- Provided three network partners with "Cuff Kits," which allow women to take their blood pressure at home and send the results to their providers; and
- Established two standardized risk assessments at St. Francis to better understand the needs of high-risk women in the network and ensure appropriate referrals that consider patients' preferences; the system coordinator conducts both the assessments and the referrals.

Top Priorities in the Second Implementation Year (September 2021-August 2022): Building on the increased focus on telehealth access brought on by the pandemic, BPN plans to purchase telehealth equipment with support from an SSM United States Department of Agriculture grant.

Additionally, the network will create a website with educational resources for clients and launch a web-based system across partners with the intention of increasing care coordination and improving data analysis to track key maternal health outcomes.

New Mexico Rural OB Access and Maternal Services (ROAMS)

The ROAMS network covers rural Colfax, Taos, Union, Harding and Mora counties in northeastern New Mexico, a mountainous area spanning over 10,000 square miles with a population of 50,000, of which 9,400 are women of childbearing age.[8] The network serves a high-poverty, geographically isolated population and reports numerous pressing maternal health challenges, including high rates of unwanted and teen pregnancy, maternal mortality, substance use disorder (SUD), and infant mortality. Women face significant geographic and socioeconomic barriers to maternal care. In Union County in the far northeastern corner of the state, there were no obstetrics services until ROAMS opened a new prenatal clinic during the RMOMS planning year (September 1, 2019- August 31, 2020). There are no providers within the service region providing in-person care for high-risk pregnancies.

Holy Cross Medical Center in Taos County serves as the lead agency for the ROAMS network, which consists of two labor and delivery Critical Access Hospitals (CAHs), four prenatal clinics (including one FQHC), five social services agencies, an overarching Governing Council, Centennial Care (Medicaid), and data partners at University of New Mexico. For more information, see the Annual Report and the ROAMS Fact Sheet, which are available on the HRSA RMOMS Program website.

> "…I talked to the mothers in Clayton that are driving four or five hours one-way over a mountain pass to get to a high-risk appointment… I think this MFM partnership is going to be important in a whole lot of ways." – ROAMS network leadership

The ROAMS network's primary activities during the first implementation year (September 1, 2020 to August 31, 2021) included:

- Contracted a telehealth MFM specialty provider for high-risk pregnancies, which will help women avoid long drives to specialty care in Santa Fe;
- Opened two new prenatal clinics and secured new equipment for all four clinics in the network, including telehealth conference technology and home telehealth kits;
- Contracted lactation consultants, joined a patient navigation program, and hired three patient navigators to help meet patients' postpartum and social service needs; and
- Collaborated with local support services providers and offered advertising, telehealth, and social media assistance to promote their services to women in the community.

Top Priorities in the Second Implementation Year (September 2021-August 2022): The MFM vendor will begin providing services during the second implementation year, complementing the clinic-based and home-based telehealth services, which will expand access to specialty care throughout the region. Moving forward, ROAMS plans to build upon and monitor the initial telehealth roll-out and pursue solutions to regulatory uncertainty about telehealth billing post-pandemic to ensure long-term sustainability.

Texas-RMOMS Comprehensive Care Maternal Care Network (TX-RMOMS)

The TX-RMOMS Comprehensive Maternal Care Network aims to improve access to continuous, comprehensive, and integrated obstetrics services among women of childbearing age residing

in the Val Verde and Uvalde service regions of southwest Texas (Val Verde, Uvalde, Edwards, Real, Kinney, and Zavala counties). Compared to the state, these service areas have higher teen birth rates, lower physician-to-patient ratios, and lower median incomes.[8,10] Approximately 21,000 women residing in these two service areas are of childbearing age and most are Hispanic (71 percent in Uvalde, 82 percent in Val Verde).[8,11]

The TX-RMOMS network brings together several health systems and stakeholders with the common goal of ensuring access to coordinated maternal health services from prenatal through postpartum care. University Health (UH), a nationally recognized teaching hospital and clinical network, serves as the lead agency. Other partners include two rural hospitals (including one CAH), three rural clinics (including two FQHCs), and the Texas Health and Human Services Commission. For more information, see the Annual Report and the TX-RMOMS Fact Sheet, which are available on the [HRSA RMOMS Program website](#).

The TX-RMOMS network's primary activities during the first implementation year (September 1, 2020 to August 31, 2021) included:

- Expanded workforce by adding new network providers and hiring clinicians and care managers to bolster network capacity at existing providers;
- Incorporated telehealth into its care delivery model to enhance local providers' capacity and support MFM consultations, training, and care coordination;
- Enhanced perinatal case management and patient navigation for women with insurance barriers, high-risk pregnancies, or other social services needs by hiring perinatal case managers and behavioral health consultants to assist in connecting women with local services and supports; and
- Conducted monthly network partner meetings to share information about newly implemented services, data collection, trainings, and service gaps.

Top Priorities in the Second Implementation Year (September 2021-August 2022): TX-RMOMS plans to prioritize expanding telehealth care, addressing high rates of no-shows for postpartum appointments, and offering educational programs to patients and network partners. These initiatives will include having perinatal case managers at TX-RMOMS educate patients about resources available to them through the Medicaid STAR Medical Plans and a diaper incentive program. The network also plans to provide refresher trainings to providers to emphasize the importance of behavioral health screenings and referrals for mental health and SUD treatment, responding to the high need for these services in the community.

> "The model and strategy that we selected for our program is to implement patient navigation, and through that, improve continuity of care for all women from preconception, through duration of their pregnancy and the postpartum care."
>
> – TX-RMOMS network leadership

Assessing The Impact of The RMOMS Program

Mission Analytics Group, Inc. and Insight Policy Research were contracted by FORHP to conduct an independent evaluation of the RMOMS program. The evaluation thoroughly documents network models and implementation facilitators and barriers to support the future replication of networked maternity care models. In addition, it assesses network impact on access to care by analyzing the utilization of key services over time, such as the receipt of

prenatal care in the first trimester and referrals to behavioral health services for mothers with mental health concerns or substance use disorder. Finally, the evaluation captures changes in major health outcomes, including maternal morbidity and mortality, as well as high-cost outcomes, such as neonatal intensive care unit stays. These activities will provide insight into how network models can potentially improve maternal health outcomes, realize financial savings, and achieve long-term sustainability.

The evaluation relies on both quantitative and qualitative primary and secondary data. Each year, awardees submit data on participant demographics, clinical and support services, and health outcomes. These data are used to describe awardee patient populations and track service utilization and health outcomes over time. Awardees also submit annual progress reports and network-level measures that demonstrate the breadth and reach of their networks. Mission/Insight will conduct phone interviews and site visits to discuss and document awardees' service models across the continuum of care. In addition, the evaluation is informed by secondary data, including aggregate measures submitted by awardees through HRSA's Performance Improvement Measurement System (PIMS) and vital statistics data.

The RMOMS evaluation produced the first Annual Report in 2021, which covered the awardees' planning year (2019-2020) ahead of full implementation in 2020-2021. It also examined the maternal health landscapes in each awardee's state and analyzed data on maternal and neonatal outcomes prior to program implementation. These findings will serve as a baseline for future analyses that assess the impact of the RMOMS program strategies on maternal health in each awardee's network.

The evaluation will continue to generate findings for a wide audience of policymakers, public health and social services agencies, direct services providers, and public stakeholders to encourage the replication of successful approaches. Dissemination products, including public webinars and topic-specific issue briefs, address the impact of coordinated networks on maternal health care utilization and outcomes, describe the characteristics of and steps for building an effective network, and contribute to the national conversation about improving maternal health for high-need rural mothers.

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