Evaluation of the Rural Maternity and Obstetrics Management Strategies (RMOMS) Program: 2019 Cohort

Second Annual Report
Executive Summary

May 2022

HRSA
Health Resources & Services Administration

NOTES

The Evaluation of the Rural Maternity and Obstetrics Management Strategies (RMOMS) Program: Second Annual Report was produced for the U.S. Department of Health and Human Services (HHS), Health Resources and Services Administration (HRSA), Federal Office of Rural Health Policy (FORHP) under contract number 5R60219D00016 to Mission Analytics Group, Inc.

This publication lists non-federal resources in order to provide additional information to consumers. The views and content in these resources have not been formally approved by HHS or HRSA. Reference in this document to any specific resources, tools, products, process, service, manufacturer, or company does not constitute its endorsement or recommendation by the U.S. government, including the Department of Health and Human Services.

Suggested citation: U.S. Department of Health and Human Services, Health Resources and Services Administration, Federal Office of Rural Health Policy, *Evaluation of the Rural Maternity and Obstetrics Management Strategies (RMOMS) Program: Second Annual Report Executive Summary*. Rockville, Maryland: U.S. Department of Health and Human Services, 2022.

Note on Language: This report uses the terms “women” and “mothers” to align with language used by the RMOMS awardees and in cited secondary data sources. Where possible, we use “RMOMS participants” or “pregnant individuals.” We remain committed to using respectful language and evaluating the quality of pregnancy-related care for all clients served by the RMOMS program, including individuals who do not identify as female.

EXECUTIVE SUMMARY

In August 2021, the first cohort of the Rural Maternity and Obstetrics Management Strategies (RMOMS) program completed its first year of implementation, funded by the Health Resources and Services Administration (HRSA) through the Federal Office of Rural Health Policy (FORHP) and the Maternal and Child Health Bureau (MCHB). Launched in 2019, the RMOMS program uses network models to increase access to maternal and obstetrics care in rural communities and to improve health outcomes for mothers and infants. The RMOMS program has four required Focus Areas: a network approach to coordinate and improve maternal health care from preconception to postpartum; telehealth services to increase access to care in rural areas; potential aggregation of low-volume rural obstetric services; and payment structures that promote financial sustainability for access to high-quality maternal care.

Three rural networks were funded as the RMOMS program 2019 Cohort: the Missouri Bootheel Perinatal Network (BPN), the New Mexico Rural Obstetrics Access and Maternal Services (ROAMS) Network, and the Texas-RMOMS Comprehensive Maternal Care Network (TX-RMOMS). The first year of funding (September 2019 to August 2020) supported planning ahead of the September 2020 launch of implementation. The work of the planning year was captured in the Evaluation of the Rural Maternity and Obstetrics Management Program: First Annual Report.

This Second Annual Report documents findings from the 2019 Cohort's first implementation year, September 1, 2020 to August 31, 2021. Under contract with FORHP, Mission Analytics Group, Inc. is conducting an independent evaluation of the program, using a mixed-methods approach to document the awardees' models, monitor key access and outcome measures over time, and identify lessons for future maternal health networks, including subsequent RMOMS cohorts. The evaluation draws on qualitative data, including awardee interviews and documentation, and quantitative patient-level data submitted by awardees.

Key findings from the Second Annual Report include:

- The three awardees in the 2019 Cohort of the RMOMS program provided prenatal, labor and delivery, and/or postpartum care to 3,101 rural RMOMS participants, with nearly 2,000 deliveries.
- The RMOMS awardees brought a wide range of partners into rural maternal health networks using different models. The least centralized model (ROAMS in New Mexico) had the greatest early success, while the Missouri awardee (BPN) experienced the greatest partner turnover, in part due to competition within the original network.
- Patient navigators emerged as an early success area for all three awardees, demonstrating the value of drawing on dedicated staff to enroll RMOMS participants in Medicaid, manage referrals to support services, and facilitate clinical care across the network.
- Awardees laid the groundwork for expanded telehealth, which they consistently identify as a major focus area to improve maternal health access, but all three experienced implementation delays that have pushed their efforts into the next implementation year.

- Patient-level data reporting was challenging for the RMOMS awardees. Manual entry worked for the awardee serving the smallest population, but the awardees serving larger populations faced barriers to data sharing, electronic health record (EHR) reporting, and tracking support services.

This Second Annual Report expands on these themes and documents awardees' progress, successes, and challenges during their first year of RMOMS program implementation.

A. The 2019 RMOMS Cohort Networks and Individuals Served

The three RMOMS service areas in the 2019 Cohort face significant maternal health barriers, including poverty, limited access to prenatal care, and worse infant and maternal health outcomes than average for their states. BPN serves six counties – Dunklin, Mississippi, New Madrid, Pemiscot, Scott, and Stoddard – in the southeast corner of Missouri, known as the Bootheel. The ROAMS network serves women in Taos, Colfax, Union, Mora, and Harding counties in northeastern New Mexico. The TX-RMOMS network serves six counties (Val Verde, Uvalde, Edwards, Real, Kinney, and Zavala counties) in two service areas: Val Verde and Uvalde.

Hospitals or hospital systems serve as the lead agencies for the RMOMS networks; for two of the three awardees, the lead hospitals are outside the RMOMS service area. TX-RMOMS is led by University Health, a large hospital system in metropolitan San Antonio. BPN is led by Saint Francis Healthcare System, which is a tertiary center with 300 beds located just north of the RMOMS service area. Only ROAMS is led by a hospital within its service area; Holy Cross Medical Center is a Critical Access Hospital (CAH) with 25 beds based in Taos, New Mexico.

Each network includes a set of formal partners, including other hospital systems, state Medicaid programs, Federally Qualified Health Centers (FQHCs), rural health clinics, and other clinical prenatal care providers. BPN's network also includes three behavioral health agencies, a support service agency, and health departments. ROAMS' network includes five support service agencies and the University of New Mexico. For both ROAMS and TX-RMOMS, the networks are split into two distinct service areas anchored by delivery hospitals.

In the first implementation year, 3,101 women received prenatal, labor and delivery, or postpartum clinical services funded or coordinated by RMOMS. Awardees reported 1,990 deliveries during the implementation year. More than half of the RMOMS maternal/clinical population received health coverage from Medicaid, including three-quarters of those served by ROAMS. Of the three, only New Mexico offered expanded Medicaid under the Affordable Care Act (ACA) during this implementation period.

Maternal/Clinical Populations Reported in the First Implementation Year

Characteristic	BPN	ROAMS	TX-RMOMS
Total maternal/clinical population	1,305	463	1,333
Total deliveries	929	281	780
Age in years			
Under 18	2%	2%	2%
18–25	42%	33%	44%
26–30	30%	27%	27%
31–34	15%	20%	14%
35 or older	11%	17%	12%
Health insurance status			
Medicaid	64%	75%	49%
Military insurance	<1%	--	7%
Private insurance	35%	24%	38%
No insurance/uninsured or other	<1%	<2%	7%

Notes: Health insurance status is for the population with reported health insurance. Individuals with unknown health insurance status are excluded from this table. Source: patient-level data submitted by the awardees in June and December 2021. The first implementation year was September 1, 2020 to August 31, 2021.

B. RMOMS Network Strategies

With the establishment of formal arrangements among network providers, the strategies implemented this year focused primarily on patient navigation/care coordination, the launch of telehealth initiatives, and expanded access to prenatal care. Two of the RMOMS awardees also engaged with Medicaid programs on potential policy changes to make the network approaches sustainable beyond the RMOMS funding period.

Network Activities

Activity	BPN	ROAMS	TX-RMOMS
Employment of patient navigator or care coordinator	Implemented at one site; planned expansion	Implemented at multiple sites	Implemented at multiple sites
Referrals to social service providers	Implemented	Implemented	Implemented
Network-wide telehealth initiative	Planned	Implemented; additional planned	Planned
Expanded access to prenatal care	--	Added two prenatal clinics	Added a physician; hiring behavioral counselors
Pursuit of Medicaid policy changes	In progress	In progress	--

Patient Navigation and Referrals to Services: All three RMOMS networks implemented expanded patient navigation and referral services during the first implementation year with dedicated staff to serve as a single, familiar contact for patients, with referrals to support services implemented in all three networks. In each case, the navigation services have primarily addressed needs during the prenatal period, although barriers to breastfeeding were a common area for education, and ROAMS also hired a lactation consultant. Awardee approaches to navigation differ in formality and goals. For example, ROAMS family navigators guide patients through the standardized Pathways patient navigation program, BPN connects RMOMS participants to essential support services, and TX-RMOMS invests significant time in increasing Medicaid enrollments.

> "I've had a mom who just broke down in tears and cried…from the breastfeeding support, the breast pump support, and just having someone there…she has done the pregnancy all by herself and she's one of the moms who called me every single week and our visits last a whole hour, every single time." – ROAMS Family Navigator

Telehealth: Telehealth was proposed as a central focus of the RMOMS awards, and all three networks made progress on telehealth initiatives during the first implementation year. These include telehealth prenatal appointments, remote visits with patient navigators, telehealth maternal–fetal medicine (MFM) consults or ultrasound reads, and home telehealth kits. Despite progress, none of the three networks met their goals for telehealth in the first year due to a range of challenges. In addition to the pandemic, network providers experienced start-up challenges related to capital costs, supply chain problems, shortages in local technicians, connectivity issues, and some unwillingness on the part of clinicians due to payment barriers or fears of losing patients to non-local providers.

Expanded Access to Prenatal Care and Clinicians: Expanding access to in-person prenatal care emerged as a top strategy for both ROAMS and TX-RMOMS, both of which have less access to local services than BPN. ROAMS opened two new prenatal clinics in underserved locations in the service area, one relying on telehealth and the other relying on a clinician traveling from another network site. TX-RMOMS added a new physician at one of its rural health clinics and plans to hire behavioral health counselors. Both networks aim to reduce long drive times (up to five hours one way for some patients) to access routine prenatal care.

Medicaid Policy Changes/Sustainability: All three awardees consider long-term sustainability in their strategic planning (a required Focus Area for awardees). BPN and ROAMS are working to secure long-term Medicaid reimbursement for their patient navigator positions, and ROAMS has also identified statewide changes to Medicaid reimbursement policy that could provide higher financial support for provision of delivery care, lactation consultation, and Medicaid-financed transportation throughout New Mexico. TX-RMOMS had less of a focus on sustainability during the first implementation year compared to ROAMS and BPN. For the second implementation year, TX-RMOMS plans to prioritize recruiting and retaining permanent staff positions and exploring whether the state Medicaid program can offer adequate reimbursement for the network's telehealth initiatives after RMOMS funding ends.

C. Maternal and Infant Outcomes

The evaluation will assess changes in maternal and infant outcome measures across the implementation period. These measures draw on patient-level data submitted by each awardee for its maternal/clinical population. Awardees submitted patient-level data in the planning year, but the populations covered in those data are not comparable with the population served in the implementation period. Therefore, the data presented here, which reflect deliveries at any time in the first implementation year, will provide the basis for comparisons in future years. Because of differences in populations served, relatively small sample sizes, and data submission challenges, the differences between awardees should not be considered differences in performance under the RMOMS programs.

Among individuals who delivered in the first implementation year, more than 70 percent of those served in the BPN and ROAMS networks received prenatal care in the first trimester. The Healthy People 2030 index for "early and adequate prenatal care attendance" sets a target of approximately 80 percent for this measure.[1] First trimester prenatal care was only reported for 45 percent of those served in TX-RMOMS, but the network only observed prenatal care from in-network providers. Among those observed at least 12 weeks after delivery, most had a postpartum visit recorded in this window, ranging from 72 percent in TX-RMOMS to 82 percent in ROAMS.

Infant Health Outcomes and Prenatal/Postpartum Care Utilization Among the Delivery Populations in RMOMS Service Areas in the First Implementation Year

Metric	BPN	ROAMS	TX-RMOMS
Total who delivered	929	281	780
Prenatal and postpartum care utilization			
Received prenatal visit in first trimester	78%	72%	45%
Received postpartum visit within 12 weeks of delivery	--	82%	72%
Infant health outcomes			
Low birthweight (<2,500 g)	11%	10%	5%
Preterm birth (<37 weeks)	12%	12%	7%
Had any NICU stay	3%	6%	<2%

Notes: The Healthy People 2030 target for first trimester prenatal care is for "early and adequate prenatal care" using an index that calculates first trimester prenatal care attendance. Preterm birth is before 37 weeks of gestation. Low birthweight is less than 2,500 grams. Due to missing data, the evaluation could not reliably determine the number of RMOMS participants who delivered and reached at least 12 weeks postpartum in the reporting period to calculate postpartum measures for BPN. Source: patient-level data submitted by the awardees in June and December 2021 and U.S. Department of Health and Human Services, Healthy People 2030. The first implementation year was September 1, 2020 to August 31, 2021.

Although prenatal care was less likely to be reported for TX-RMOMS, a larger share of infants in the BPN and ROAMS networks had poor birth outcomes. About one in nine infants in the BPN and ROAMS networks were born preterm (before 37 weeks of gestation). The Healthy People 2030 target is fewer than one in 11.[1] Only TX-RMOMS met this threshold in the first implementation year. Similar shares of the infants were born with low birthweight, although neonatal intensive care unit (NICU) stays were rare.

Patient-level data reporting for the evaluation was a significant challenge for all three awardees. ROAMS was the only awardee able to report consistent data between its planning year and implementation year, and it was the only awardee to use its data for internal analyses. However, it achieved successful data submission through manual data entry, working with the smallest service population. Awardees found it difficult to pull the needed information from their EHR systems or to link data across awardee partners, both due to technical challenges and legal restrictions. It was particularly difficult to obtain data not traditionally stored in EHR (such as support services) or for RMOMS participants who transferred out of the network for delivery. Finally, the evaluation seeks to track care, especially for participants whose pregnancies are deemed "high-risk." The definition of high-risk pregnancy was left up to the awardees, based on the patient's clinician or other standards. However, this resulted in very inconsistent definitions between the awardees, variations in high-risk pregnancy determinations between clinical providers within each network, very large shares deemed high-risk, and a lack of consistent EHR flags for high-risk pregnancies to support the RMOMS evaluation.

D. Lessons Learned on the Network Approaches

The RMOMS program tests novel network approaches to address the limited access to maternal health care in rural areas. The early experiences of the 2019 RMOMS Cohort demonstrate some of the benefits of these networks, but also underscore challenges in developing networks to address gaps in services and access to care.

Networks were successful in responding to specific local gaps in care. The RMOMS networks were designed to pull in partners that provide a range of services in their areas. Early successes often involved developing new services or expanding services to other areas. ROAMS, which covers the largest geographic area and least dense population among the three, identified regions with no prenatal or delivery care available before implementation of the RMOMS program. The network engaged with rural hospitals and clinics in those areas to extend prenatal care services. Similarly, the patient navigators served as a new service available to RMOMS participants in all three networks.

Local clinical engagement is valuable for network success. TX-RMOMS and BPN are both led by hospital systems that offer higher levels of maternal care, but are located outside of the service areas. While these hospitals are well positioned to manage the administrative requirements of the cooperative agreement, they have faced challenges in building engagement with local partners. University Health, the TX-RMOMS lead, received few referrals in the RMOMS network, and therefore was not only working from outside the service area, but also shared few patients with network providers. In contrast, the ROAMS lead was the main hospital for one of two branches of the network; it was able to implement a less centralized approach covering a wide geographic service area. The engagement of local clinicians is especially important to build the system of care, including referrals to support services, and to ensure the take-up of network strategies such as telehealth.

Competition for patients can impede network approaches. Clinical partners within the BPN network share service areas and compete for patients. A major hospital system, accounting for nearly one-third of the deliveries in the service area, left the BPN network. It had a long-standing

competitive relationship with the awardee lead. Partners also expressed concerns about the allocation of telehealth equipment and patient navigators, worried in part about the risk of losing patients as telehealth is offered in different locations. Launching services at the lead agency may help achieve early successes, but delays in expansion to additional partner organizations can make these benefits less visible to other partners.

Plan for staffing challenges. The RMOMS programs were launched in the middle of the coronavirus disease 2019 (COVID-19) pandemic, which worsened preexisting staffing shortages in rural health systems. These areas face particular challenges in hiring for specialized positions. All three awardees experienced delays or disruptions due to staffing and turnover. ROAMS lost a social service provider after its director left the agency and was not able to secure a lactation consultant on schedule for one of its two areas. TX-RMOMS faced broad staffing challenges, in part because of the crisis at the border in Del Rio, but the network was also unable to find technicians to train for telehealth initiatives. Agencies in several of the RMOMS areas lost staff due to the COVID-19 vaccination requirement.

Awardees tailored few initiatives to address systemic health disparities among their populations. The RMOMS program contributes toward HRSA's overall goal of increasing health equity. For the RMOMS awardees, this means a focus on improved maternal health care access across their rural regions, including connections to support services and Medicaid coverage. Awardees generally focused on barriers for their overall populations, such as women facing transportation barriers or individuals with high-risk pregnancies, although in some cases, they implemented specific initiatives serving narrower groups, such as health literacy programs or feedback-gathering from local mothers.

E. Next Steps

Despite implementation delays, the three awardees in the 2019 Cohort made progress in strategies to improve maternal health care in their service area. All three awardees have major expansions planned for the second implementation year (September 1, 2021 to August 31, 2022). All three aim to launch telehealth initiatives with MFM specialists. BPN will expand its System Care Coordination model to multiple outpatient clinics and launch the Unite Us automated referral management system. TX-RMOMS will continue to recruit additional staff for its rural health care workforce and address staffing challenges, particularly for specialized positions.

The evaluation will document this ongoing progress and lessons learned to support replication by other similar rural network models. Additional years of patient-level data will also indicate where the networks' successes translate into improved outcomes and where those outcomes are slower to change. The evaluation will also place a greater focus on the sustainability of network strategies at participating clinic sites and Medicaid or other national policy changes to advance maternal health progress. Awardees are starting to make inroads with state Medicaid programs to streamline enrollment, connect participants to Medicaid-funded support services, improve transportation coverage, and provide additional coverage for postpartum care and patient navigation. The evaluation will track these changes, not only for their impact on RMOMS participants in network service areas, but also on expanded access to rural maternal health care in each state.

REFERENCES

1. U.S. Department of Health and Human Services. Healthy People 2030. Health.gov. Accessed March 11, 2022. https://health.gov/healthypeople