

RURAL MATERNITY AND OBSTETRICS MANAGEMENT STRATEGIES (RURAL MOMS) PROGRAM

2019 COHORT FINAL REPORT

2025



**RURAL MATERNAL HEALTH DATA
SUPPORT AND ANALYSIS
PROGRAM**

INTRODUCTION

Rural areas experience worse maternal health outcomes than urban areas due in part to the closure of obstetric (OB) units, staffing challenges, and higher rates of poverty, chronic illness, and substance use. In 2019, the Health Resources and Services Administration (HRSA) Federal Office of Rural Health Policy (FORHP) and Maternal and Child Health Bureau (MCHB) launched the Rural Maternity and Obstetrics Management Strategies (Rural MOMS) program to address these challenges and improve access to maternal health care.

The first Rural MOMS cohort consisted of three awardees funded for a four-year period of performance, including one planning year and three implementation years (September 1, 2019 to August 31, 2023).^a The awardees include:

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

Rural Missouri, New Mexico, and Texas, like other parts of rural America, face significant maternal health barriers. These include accelerating rural hospital closures and staffing shortages for obstetric providers, both of which have had a dramatic negative impact on women's health and rural maternal health care.^{1,2} Rural areas, including those in Rural MOMS awardee states, also have disproportionately high rates of pregnancy risk factors (e.g., substance use, lack of prenatal care) affecting their maternal and infant populations.^{3,4,5,6,7} In addition, the 2019 Cohort awardees piloted the Rural MOMS program during a global pandemic. The COVID-19 public health emergency began about halfway through the planning year and affected the daily operations of network partners, particularly hospitals and clinics.

Rural MOMS provided start-up funding to these rural communities to create networks of rural hospitals, clinics, and community-based organizations. These networks aimed to enhance coordination of maternal health care to improve access and outcomes in their service areas.

From 2019 to 2023, networks launched innovative programs to expand access through telehealth, address social economic barriers through patient navigation, and build skills and capacity across providers. These activities continue today with the support of new grant funding and health insurance reimbursement. This final report summarizes these activities and how they have impacted local communities.

a. Networks implemented some unfinished Rural MOMS activities during a one-year no-cost extension (NCE) period, September 1, 2023 - August 31, 2024.

PROGRAM HIGHLIGHTS

THROUGH RURAL MOMS, NETWORKS:

- Served more than 7,000 women across the implementation period (September 1, 2020 to August 31, 2023). Of the 7,062 Rural MOMS participants, 5,745 delivered 5,803 infants.
- Established Maternal-Fetal Medicine (MFM) telehealth services lines. Through telehealth technology, MFM providers in all three networks now can review ultrasounds and virtually consult with patients and local clinicians, improving access and saving patients hours of driving time.
- Launched patient navigation programs customized to local contexts. New staff positions, funded as perinatal case managers, family navigators, or care coordinators, addressed barriers to care, such as lack of transportation or need for health insurance, during regularly scheduled prenatal care.
- Collaborated with Medicaid network partners. These collaborations impacted reimbursement policies, enhancing support for pregnant women in rural areas.
- Adopted approaches to continue work beyond the Rural MOMS funding period. Networks began billing for clinical services launched with Rural MOMS funding, such as telehealth and ultrasound services, and secured additional support through public and private grants.

MEET THE AWARDEES

Each 2019 Rural MOMS network was led by a delivery hospital or health care system that included a delivery hospital. These lead organizations coordinated funding and spearheaded network activities. Networks included additional hospitals or health care systems, prenatal and postpartum care providers, including Rural Health Clinics (RHCs) and Federally Qualified Health Centers (FQHCs), social service organizations, and state Medicaid programs.

Missouri Bootheel Perinatal Network (BPN): Led by Saint Francis Medical Center (SFMC), BPN operated in six counties in the southeastern Bootheel region of Missouri: Dunklin, Mississippi, New Madrid, Pemiscot, Scott, and Stoddard counties. Women living in the high-poverty Bootheel region face numerous socioeconomic challenges and limited access to local maternal health care, especially for high-risk pregnancies. BPN had the largest network, with three health care systems, six county health departments, two behavioral health agencies, an FQHC, a tertiary hospital in St. Louis, and a regional consortium focused on reducing infant mortality.

New Mexico Rural OB Access and Maternal Services (ROAMS): Led by Holy Cross Medical Center, the ROAMS network provided integrated maternal health care and services to women living in Colfax, Taos, Union, Mora, and Harding counties in northeastern New Mexico. The ROAMS service area covered a mountainous, geographically isolated region with limited access to basic prenatal care and delivery hospitals. The ROAMS network had four core clinical partners in the service area: three Critical Access Hospitals (CAHs) that offer prenatal care and an FQHC.

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

Led by University Health (UH) in San Antonio, the TX-RMOMS network focused on improving access to comprehensive obstetric services in southwest Texas, including Val Verde, Uvalde, Edwards, Real, Kinney, Zavala, and Maverick counties. The region’s population faces significant challenges to accessing timely, comprehensive maternal health care services. Partners included a tertiary hospital, a regional hospital, an FQHC, and a large social services organization.



KEY ACCOMPLISHMENTS

The Rural MOMS networks created new service lines and programs with lasting effects through increasing access to care, addressing barriers to care, and improving care quality.

Patient Navigation Programs to Improve Access to Care

All three Rural MOMS awardees introduced patient navigation services that continue to address factors that put women at risk for poor maternal health outcomes. Perinatal case management services became a centerpiece of TX-RMOMS activities. The perinatal case managers assisted uninsured patients with Medicaid enrollment, provided mental health and behavioral health screening and referrals, and coordinated delivery and postpartum care. ROAMS’ family navigators and lactation consultants worked closely to connect Rural MOMS participants to transportation and housing as well as breastfeeding support.

BPN implemented a patient navigation program through which System Care Coordinators (SCCs) helped Rural MOMS participants access home visitation, mental health support, Medicaid managed care services, and community resources.

BPN also developed an automated referral platform known as the Bootheel Resource Network (BoRN) to connect Rural MOMS participants and other residents in the Bootheel to food banks and other support services. BPN’s BoRN connected 2,686 residents, primarily rural moms and their families, to social services. Over 13,000 referrals were made by 27 participating agencies.

During the Rural MOMS implementation period:



Perinatal case managers served all TX-RMOMS participants, over **3,400 women**.

BPN's SCCs provided intensive patient navigation and case management to over **250 Rural MOMS participants**.

- Since the launch of the program, Rural MOMS participants have been **more likely to attend their MFM appointments**. In 2020, 8.4 percent of MFM appointments resulted in a no-show, compared to just 4.5 percent in 2023.
- An internal analysis conducted by BPN indicated that the percentage of women who received **adequate prenatal care was almost five percentage points higher** for Rural MOMS participants with SCC support than for similar women without SCC support.

ROAMS family navigators served **325 women**, more than a third of all ROAMS participants.



New Technologies and Telehealth to Expand Service Lines

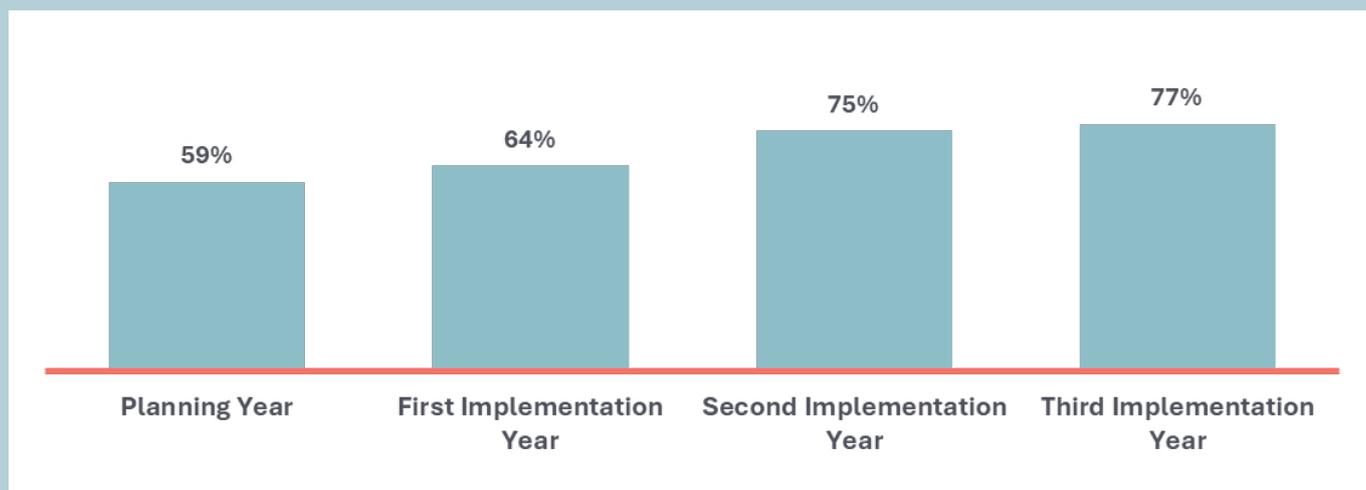
Networks introduced telehealth and other technologies in their service areas. BPN and ROAMS distributed home telehealth kits, expanding convenient access to monitoring for chronic conditions and educational content. New level 2 (more advanced) ultrasound equipment for rural communities purchased by BPN through Rural MOMS saved women hours of travel time for routine scans. TX-RMOMS and ROAMS also advanced the skills of ultrasound technicians through in-person trainings. All three networks launched MFM telehealth as a new service line. Through the technology, MFM specialists reviewed ultrasounds and virtually consulted with patients and local clinicians in real-time.



BPN's MFM provider operated three days a week and saw up to ten patients a day virtually. In the first year of operation, the telehealth MFM program served **170 Rural MOMS participants** from the Bootheel and **saved them 90,000 miles on the road** since they could receive care more locally in Cape Girardeau instead of in St. Louis.

ROAMS established a "tele-OB program" that linked clinicians at a delivery hospital with a nurse practitioner at an RHC associated with a hospital that had shuttered prenatal care and delivery services prior to Rural MOMS. Miners Colfax Medical Center was the primary delivery hospital for those participating in the tele-OB program. During the year prior to ROAMS implementation, just 59 percent of women delivering at Miners Colfax Medical Center received a prenatal visit in the first trimester. This share increased to 64 percent in the first implementation year when the program was launched, 75 percent in the second implementation year, and 77 percent in the third and final implementation year.

Percent of Women Delivering at Miners Colfax Medical Center (in the ROAMS Network) with at Least One Prenatal Visit in the First Trimester



Source: de-identified patient-level data submitted by ROAMS. The first implementation year was September 1, 2020 to August 31, 2021. The second implementation year was September 1, 2021 to August 31, 2022. The third implementation year was September 1, 2022 to August 31, 2023.

Provider Capacity Building and Patient Education

In addition to the core activities, awardees strengthened the skills and capacities of providers in their service areas. ROAMS hosted provider virtual Grand Rounds for case consultations, offered advanced ultrasound training to sonographers, invested in Community Health Worker (CHW) certification for the family navigators, and built the capacity of a rural nurse practitioner to offer basic prenatal care as part of the tele-OB program. The network also invested in medical devices to treat postpartum hemorrhage. TX-RMOMS trained sonographers and supported continuing education for medical assistants who were long-time residents in their communities, contributing to a more sustainable, skilled health care workforce. BPN implemented training for emergency medical services (EMS) personnel, who are often the first responders for emergency deliveries. BPN developed a virtual EMS training module and hosted an in-person simulation to improve the proficiency of first responders and staff in non-delivery hospital emergency departments (EDs) to manage deliveries. BPN also purchased a simulation mannequin to support future training.



A total of **187 direct services providers**, 37 percent of whom served in the Bootheel, completed BPN's online module on emergency deliveries, and **50 attended the in-person session**, including EMS personnel, ED staff, doulas, and social workers.

The networks also provided patient education. The ROAMS network offered a postpartum education series to Rural MOMS participants and invested in advertising about the network's services. TX-RMOMS enhanced existing patient education programs in rural hospitals and distributed car seats and more than 5,000 packages of diapers at educational sessions and community events; these programs were taken up by a social services organization to continue beyond the Rural MOMS award.

Working with State Medicaid Programs

State Medicaid programs were active partners of Rural MOMS networks. BPN's SCCs coordinated with Medicaid managed care organizations to secure benefits, such as transportation and home delivered meals, for Rural MOMS participants. The New Mexico Medicaid agency worked with ROAMS to expand

the transportation benefit to women enrolled in pregnancy-related Medicaid and reclassify lactation consultation from an educational to a clinical service, improving reimbursement rates.

Maintaining Efforts after the Rural MOMS Award

After Rural MOMS funding ended, the three awardees incorporated many of these activities into regular operating budgets or funded them through insurance reimbursement and grants. Medicaid, which covers the majority of deliveries in these service areas, covers the new telehealth MFM services, BPN’s new ultrasound services at the rural clinic, and ROAMS’ patient navigation program. All three awardees also extended successful Rural MOMS strategies through external grants, including BPN’s BoRN platform and patient navigation program. TX-RMOMS received a five-year grant to further expand MFM specialty care, patient navigation services, and patient education.

POPULATIONS SERVED

Over the Rural MOMS implementation period, awardees reported providing maternity-related clinical care to 7,062 unique participants. Of these, 5,745 Rural MOMS participants delivered 5,803 infants. As shown in the table below, populations varied by network.



56 percent of Rural MOMS participants were covered by Medicaid.

Characteristics of Women Receiving Maternity-Related Clinical Care in the Rural MOMS Implementation Period (September 2020 to August 2023)

Characteristic	BPN	ROAMS	TX-RMOMS	Total
Total population served	2,671	969	3,422	7,062
Total deliveries	2,671	808	2,266	5,745
Total infants	2,699	820	2,284	5,803
Age in years				
Under 18	1%	1%	2%	2%
18-25	35%	31%	38%	36%
26-30	31%	28%	30%	30%
31-34	18%	19%	16%	17%
35 or older	15%	20%	14%	15%
Health insurance status				
Medicaid	57%	72%	51%	56%
Private insurance	25%	24%	32%	28%
Military insurance	1%	<1%	6%	3%
No insurance/uninsured or other	2%	4%	3%	3%
Missing	16%	0%	9%	10%

Notes: Individual network counts are de-duplicated across implementation years. Totals aggregated across networks are not de-duplicated; however, participants are unlikely to have participated in more than one network. Maternal age data were missing for less than one percent of Rural MOMS participants for all awardees. Age in years and health insurance status are calculated out of total population served. Source: de-identified patient-level data submitted by the awardees. The first implementation year was September 1, 2020 to August 31, 2021. The second implementation year was September 1, 2021 to August 31, 2022. The third implementation year was September 1, 2022 to August 31, 2023.

Awardees designed their Rural MOMS program activities to improve access to prenatal, delivery, and postpartum care, leading to health benefits for women and their infants. ROAMS had the highest share of participants with timely prenatal care (i.e., visit in the first trimester), exceeding the average rate for New Mexico and coming close to the Healthy People 2030 benchmark of 80.5 percent.^b



Overall, only 7 percent of infants delivered in the Rural MOMS program were born preterm, compared to a Healthy People 2030 target of 9.4 percent.

Health Care Utilization and Outcomes Among Women Who Delivered in the Rural MOMS Implementation Period (September 2020 to August 2023 - All Networks)

Metric	Share of Deliveries	National NVSS Rates	Healthy People 2030 Target
Prenatal visit in first trimester	60%	67%	80.5%
Postpartum visit within 12 weeks	77%	N/A	N/A
Low birthweight (<2,500g)	7%	8.6%	N/A
Preterm birth (<37 weeks)	7%	10.4%	9.4%

Source: de-identified patient-level data submitted by the awardees; National Vital Statistics System (NVSS), 2022 data; Healthy People 2030, <https://odphp.health.gov/healthypeople/objectives-and-data/browse-objectives/pregnancy-and-childbirth>.

CONCLUSIONS

Despite stressors on health care partners and systems, such as the COVID-19 pandemic, the Rural MOMS awardees in the 2019 Cohort launched promising maternal health initiatives tailored to new clinical and supportive services. Qualitative and descriptive evidence suggests that the awardees succeeded at improving care coordination, access to care, and utilization of key pregnancy services in their high-need rural service areas. As the three awardees in the 2019 Cohort have evolved past their formal involvement in the Rural MOMS program, many of their strategies are solidly integrated into everyday operations. New partners and external funding sources may help sustain their efforts for months or years. The awardee experiences during the Rural MOMS period and beyond have contributed valuable findings for similar maternal health networks that aim to improve access to care and health outcomes in rural areas.

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