

Bootheel Perinatal Network (BPN): Missouri

The Health Resources and Services Administration (HRSA) established the Rural Maternity and Obstetrics Management Strategies (RMOMS) Program in September 2019 to improve access to and continuity of maternal and obstetrics care in rural communities. The Bootheel Perinatal Network (BPN), a group of rural providers located in the southeast corner of Missouri, was one of three awardees to receive a cooperative agreement from HRSA. Led by Saint Francis Medical Center, BPN aims to connect pregnant women with medical and support services – both in-person and via telehealth – to improve infant and maternal health outcomes. The grant spans from September 2019 to August 2023 with one planning year and three implementation years.

MATERNAL HEALTH LANDSCAPE

Home to a population of over 140,000, including 30,000 women of childbearing age, the six-county region of the Missouri Bootheel faces higher levels of poverty and unemployment and lower levels of educational attainment than the state and other rural counties in Missouri.¹ Women in the region, particularly Black women, face challenges in accessing high-quality maternal health services at all stages in the continuum of care.^{2,3,4} According to BPN staff, two major hospitals discontinued obstetrics (OB) services in 2014 and 2018, leaving many women in the region with no local services. Women either leave the state or travel more than an hour to receive services elsewhere in Missouri. Women in the Bootheel experience worse maternal and infant health outcomes than women in the state and nation overall.²



NETWORK STRUCTURE

BPN, led by the region's largest tertiary center, Saint Francis Medical Center, is composed of:

- Three rural hospital systems: Saint Francis Medical Center, Missouri Delta Medical Center, and SoutheastHEALTH;
- Health departments from the six participating counties;
- Two home visitation programs, including the Building Blocks/Nurse-Family Partnership and the Missouri Bootheel Regional Consortium (MBRC);
- Southeast Missouri (SEMO) Health Network, a Federally Qualified Health Center (FQHC) network of 17 health centers throughout the Bootheel;

- Three behavioral health agencies: Bootheel Counseling Services, FCC Behavioral Health, and Gibson Recovery;
- SSM Health Perinatal Center, located in St. Louis; and
- MO HealthNet (Medicaid), which covers 38 percent of births in Missouri.⁵

BPN maintains partner engagement through regular workgroup meetings. The network also benefits from the decades of regional maternal health experience among the awardee leadership team. BPN notes that their personal connections with partners and regular one-on-one conversations have kept the network strong.

“Hospital expertise [does not] link people to services. If I show up at the hospital, I want to have the best doctors and nurses and hospital that I can. But if I’m going in for my 10-minute prenatal visit and I don’t have food and I don’t have transportation, and I’ve got four kids...and I can’t get out of bed in the morning, there’s not a whole lot the hospital’s going to do for me.

The magic comes when you have the community who understands that and can help.”

- BPN Leadership

NETWORK MODEL AND GOALS

System Care Coordination (SCC) and Supports for High-Risk Women

BPN developed and implemented standardized processes to assess risk and support women in receiving the clinical care they need. A system care coordinator conducts risk assessments, reduces immediate barriers to care, such as lack of transportation and insurance, and facilitates referrals to home visitation and/or behavioral health. In early 2021, BPN started providing SCC services to women referred to maternal-fetal medicine (MFM) providers. A second phase expands services to pregnant women who do not require the level of care offered by an MFM. BPN plans to provide women attending routine prenatal visits with a tablet to complete self-assessment;; the SCC will review the assessments and reach out with resources. By rolling out SCC to different populations in a phased approach, BPN hopes to gain buy-in from early “wins” and improve the process over time based on lessons learned.

Telehealth

BPN is launching a telehealth program through a partnership with SSM St. Louis’ United States Department of Agriculture (USDA) grant to expand the network’s prenatal and postpartum clinical care and reduce transportation barriers. New Madrid County Department of Health will serve as the initial hosting site based on its central location and the willingness of department leadership to participate. Women will visit the health department clinic and receive support from a nurse and sonographer to connect to one of BPN’s OB or specialist providers within the SSM Health Perinatal Center. Sonogram images will be transferred in real-time. BPN has identified Stoddard and Mississippi County Health Departments as potential sites for telehealth expansion.

BPN’s SCC process helped the Saint Francis Health Center in Dexter identify telehealth needs to ensure women in Stoddard County who lack transportation can easily obtain the maternal care they need closer to home. Stoddard County is the only Bootheel county that is not covered by Healthy Start transportation services, resulting in reduced access to care.

BPN also assisted three network partners in obtaining blood pressure “Cuff Kits” through the Preeclampsia Foundation program so women can take their blood pressure at home and transmit the results to their OBs for follow-up.

Provider Capacity Building

BPN is partnering with Southeast Missouri State University and developing a “virtual tour” of the Bootheel, using provider and patient experiences to describe the challenges the area faces and resources available in the community. This resource can support workforce development efforts and educate policymakers about challenges and opportunities for improvement. BPN is building the capacity of local providers through didactic and simulation programs and by encouraging partners to participate in the state’s maternal health Project ECHO.⁶

Health equity is a cross-cutting theme throughout BPN’s work; the network launched a related work group in June 2021.

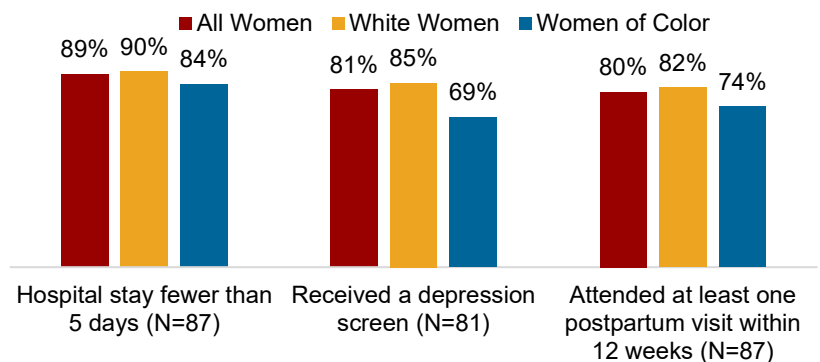
Early Facilitators and Challenges Identified in the Planning Period

- COVID-19 delayed some BPN activities during the planning year (September 2019-August 2020), but it also sped up the telehealth process through the reduction of payment-based requirements and the general acceptance of virtual visits across the patient population. In addition, telehealth is facilitated by regional efforts to expand broadband access.
- One of BPN’s early challenges is encouraging the take-up of home visitation services. Demand for home visitation has gradually decreased over time, possibly because people have become more wary of “outsiders” in their homes, potentially “judging” their lifestyles.
- BPN aimed to establish a Health Information Exchange (HIE) across providers, but the effort was dropped due to cost concerns. Some network partners are disappointed that a “comprehensive patient record” will not be an outcome of the RMOMS effort.

BASELINE DATA SHOW MATERNAL HEALTH CHALLENGES

BPN submitted pre-implementation data for the planning year (September 1, 2019 to August 31, 2020) for over 100 women who were referred to MFM services at Saint Francis Medical Center. Of these women, 21 percent were Black or Hispanic, 64 percent were insured through Medicaid, and all had high-risk pregnancies. Women of color (Hispanic and Black women) were slightly less likely to have a prenatal visit in the first trimester than their White counterparts (68% compared to 71%) and had fewer visits overall. Women of color also had longer hospital stays and lower rates of depression screening and postpartum visit attendance.

Maternal Labor/Delivery and Postpartum Outcomes in the Baseline Period Prior to Implementation



Source: Patient-level data submitted by awardees in December 2020. The baseline period was September 1, 2019 to August 31, 2020.

More information on the baseline year patient-level data findings is available in the first Annual Report, which can be found on the [HRSA RMOMS Program website](#).

NEXT STEPS

As BPN moves into the second implementation year (September 1, 2021 to August 31, 2022), the program plans to:

- Launch a web-based system across partners to support care coordination and data analysis;
- Create a website with educational resources for clients;
- Expand the reach of the SCC model; and
- Purchase telehealth equipment with the support of an SSM USDA grant.

Additional information about the BPN program is available in the first Annual Report, which can be found on the [HRSA RMOMS Program website](#).

REFERENCES

1. United States Census Bureau. American Community Survey 5-Year Data, 2013-2018. Accessed August 31, 2020. <https://www.census.gov/data/developers/data-sets/acs-5year.html>
2. National Center for Health Statistics. National Vital Statistics System Restricted Natality Data, 2015-2018.
3. Missouri Department of Health and Senior Services. Missouri Title V Facts: Maternal Morbidity/Mortality. Accessed February 4, 2021. https://health.mo.gov/living/families/mch-block-grant/pdf/maternalmortalityandmorbidity_final.pdf
4. Centers for Disease Control and Prevention, Pregnancy Risk Assessment Monitoring System. Postpartum Checkup Data, 2017. Published online 2017. Accessed February 4, 2021. www.marchofdimes.org/peristats
5. Kaiser Family Foundation. Births Financed by Medicaid. Missouri (2017), Texas (2016), New Mexico (2018). <https://www.kff.org/medicaid/state-indicator/births-financed-by-medicaid/?currentTimeframe=0&sortModel=%7B%22collId%22:%22Location%22,%22sort%22:%22asc%22%7D>
6. Missouri Moms and Babies. Show-Me ECHO. Accessed February 18, 2021. <https://showmeecho.org/clinics/missouri-moms-and-babies/>