MONTANA OBSTETRICS and MATERNAL SUPPORT PROGRAM

— Year 2 Report —

MOMS
Montana Obstetrics & Maternal Support

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Rural Institute
UNIVERSITY OF MONTANA

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Acronym Glossary

Acronym	Full Name
AAP	American Academy of Pediatrics
ACOG	American College of Obstetricians and Gynecologists
AHRQ	Agency for Healthcare Research and Quality
AI/ AN	American Indian / Alaska Native
AIM	Alliance for Innovation on Maternal Health
APRN	Advanced Practice Nurse
AWHONN	Association of Women's Health, Obstetric and Neonatal Nurses
BRFSS	Behavioral Risk Factor Surveillance System
CBT	Cognitive Behavioral Therapy
CDC	Centers for Disease Control
CDC ERASE-MM	Enhancing Reviews and Surveillance to Eliminate Maternal Mortality
CDC LOCATe	Levels of Care Assessment Tool
CLC	Certified Lactation Counselor
CMQCC	California Maternal Quality Care Collaborative
CNA	Certified Nursing Assistant
CNM	Certified Nurse Midwife
DUA	Data Use Agreement
ECFSD	Early Childhood & Family Support Division
ECO	Emergencies in Clinical Obstetrics
ECHO	Extension for Community Healthcare Outcomes
EFM	Electronic Fetal Monitoring
EMPATHS	Eastern Montana Perinatal Addiction Treatment Health System
EMT	Emergency Medical Technician
FCHB	Family and Community Health Bureau
FICMMR	Fetal, Infant, Child, and Mortality Review
HHS	Health and Human Services
HMHB	Healthy Mothers Healthy Babies
HPSA	Health Professional Shortage Areas
HRSA	Health Resource Services Administration
IRB	Institutional Review Board

Acronym Glossary

Acronym	Full Name
LCSW	Licensed Clinical Social Worker
LIFTS	Linking Infants and Families to Services
LPN	Licensed Practical Nurse
MAT	Medication-Assisted Treatment
MCEMH	Montana Center for Excellence in Maternal Health
MD	Doctor of Medicine
MHA	Montana Hospital Association
MHI	Maternal Health Innovation program
MHLC	Maternal Health Leadership Council
MHLIC	Maternal Health Learning and Innovation Center
MHSP	Maternal Health Strategic Plan
MMH Certificate	Maternal Mental Health Certificate
MMRC	Maternal Mortality Review Committee
MOMS	Montana Obstetric and Maternal Support
MPAS	Maternal Postnatal Attachment Scale
MPCA	Montana Primary Care Association
MPQC	Montana Perinatal Quality Collaborative
MSU	Montana State University
MT DPHHS	Montana Department of Public Health and Human Services
NCHS	National Center for Health Statistics
NP	Nurse Practitioner
NRP	Neonatal Resuscitation Program
OB/GYN	Obstetrician and Gynecologist
PA	Physician Assistant
PALS	Pediatric Advanced Life Support
PDSA	Plan, Do, Study, Act
PERT	Preeclampsia Early Recognition Tool
PPD	Postpartum Depression
PPH	Postpartum Hemorrhage
PRAMS	Pregnancy Risk Assessment Monitoring System

Acronym Glossary

Acronym	Full Name
PRISM	Psychiatric Referrals, Intervention, and Support
PSI Training	Postpartum Support International Training
RMC-OTD	Rocky Mountain College Occupational Therapy Doctorate Program
RN	Registered Nurse
SBIRT	Screening, Brief Intervention, and Referral to Treatment
SIM-MT	Simulation in Motion Montana
SMFM	Society for Maternal-Fetal Medicine
SMM	Severe Maternal Morbidity
STABLE	Sugar, Temperature, Airway, Blood Pressure, Lab Work, and Emotional Support
SUD	Substance Use Disorder
SW	Social Work(er)
UM	University of Montana
WHO	World Health Organization
WLA	Western Landowners Alliance

Background

The Montana Obstetric and Maternal Support program (MOMS) was initiated on October 1, 2019, by a five-year grant awarded to the Montana Department of Public Health and Human Services (DPHHS) by the Health Resource Services Administration (HRSA) through the State Maternal Health Innovation (MHI) Program (HRSA-19-107) to address Montana's concerning rates of maternal morbidity and mortality. MOMS aims to respond to Montana's unique rural healthcare challenges by connecting local providers to obstetric, perinatal, mental health, and substance use specialists who provide expert consultation, training, and support to help providers deliver effective prenatal, delivery, and postpartum care.

MOMS is implemented through the leadership of the primary grantee, the Title V Maternal and Child Health Block Grant program in the Family and Community Health Bureau (FCHB), within the Early Childhood & Family Support Division (ECFSD) at DPHHS. Two subgrantees, Billings Clinic and the University of Montana (UM), also lead the MOMS project. The grantee and subgrantees implement the MOMS workplan through a team of staff and contractors, as well as through partnerships with statewide entities, such as the Montana Hospital Association (MHA), and local clinics, providers, and other stakeholders.

Partners

Montana Department of Public Health and Human Services

Title V Maternal and Child Health Block Grant provides central leadership for MOMS within DPHHS. The DPHHS MOMS coordinator convenes and facilitates the Montana Maternal Health Leadership Council (MHLC) and the Montana Maternal Mortality Review Committee (MMRC). DPHHS also leads the Montana Perinatal Quality Collaborative (MPQC) and initiated contracting and onboarding during the second project year of MOMS with the American College of Obstetricians and Gynecologists (ACOG) toward Montana becoming an Alliance for Innovation on Maternal Health (AIM) state in Fall 2021.

Billings Clinic

Billings Clinic implements the MOMS Eastern Montana Demonstration Project, which consists of training and provider support innovations, such as facility-based simulation training in obstetric care, teleconsultation, and remote grand rounds via Project ECHO, nursing and medical provider training, and certification courses. Billings Clinic also administers the Eastern Montana Perinatal Addiction Treatment Health System (EMPATHS) Pilot Program. EMPATHS is designed to test service delivery innovations, namely the utilization of telehealth interventions, peer support services, multi-organizational care collaboration, and universal implementation of validated screening tools for substance use risk in the OB/GYN setting.

University of Montana

UM engages in the MOMS program through the Rural Institute for Inclusive Communities. UM provides research and data analysis support, ongoing formative and summative evaluation of the full project, and technical assistance and guidance. UM also serves as the fiscal agent of the Montana AIM Initiative and provides support to the department on maternal mortality review, which is funded by the Centers for Disease Control (CDC) Enhancing Reviews and Surveillance to Eliminate Maternal Mortality (ERASE MM) project, a grant awarded to Montana DPHHS in 2021.

Impact of COVID-19

The COVID-19 pandemic continued to impact MOMS program activities in year 2. Montana experienced a surge of cases at the start of grant year 2 (fall of 2020 and early in 2021). The availability of vaccinations in the spring of 2021 contributed to a decline in cases which provided a few opportunities for in-person meetings and activities. Then, the Delta variant surfaced in the United States. Delta swept rapidly through Montana resulting in a surge of cases late summer and through the fall of 2021. Montana recorded its highest number of cases and hospitalizations in October 2021. The surge of the Delta variant has significantly burdened hospitals and healthcare providers. Activities that were planned to occur at healthcare facilities, grant-related travel, in-person data collection, and engagement from healthcare providers were all understandably limited due to these unforeseen events. The MOMS team has made efforts to proceed with activities that could be conducted remotely and adjust the work plan and timeline for activities that were halted due to the pandemic. This evaluation report assesses performance against the modified grant work plan. Consideration is given for omitted or postponed activities caused by the pandemic's disruption.

This report provides an evaluation summary of the second project year of the MOMS grant and addresses Objectives A through C and the specific strategies that were addressed during the October 1, 2020 – September 30, 2021 project period.

Objective A: Catalyze Multidisciplinary Collaboration in Maternal Health

Strategy 1	Elevate maternal health as a priority issue in Montana
Activity 1.1	Establish the Montana Center for Excellence in Maternal Health (MCEMH) to house Maternal Health Task Force and Maternal Mortality Review Committee (MMRC)
Activity 1.2	Develop maternal health strategic plan through public input process
Activity 1.3	Conduct community education and screening to have annual well-woman visit, initiate 1st trimester prenatal care, maintain prenatal care, seek insurance coverage, receive postpartum screening and care

Activity 1.1

Establish the Montana Center for Excellence in Maternal Health to house the Maternal Health Task Force and Maternal Mortality Review Committee

Maternal Health Task Force (Maternal Health Leadership Council)

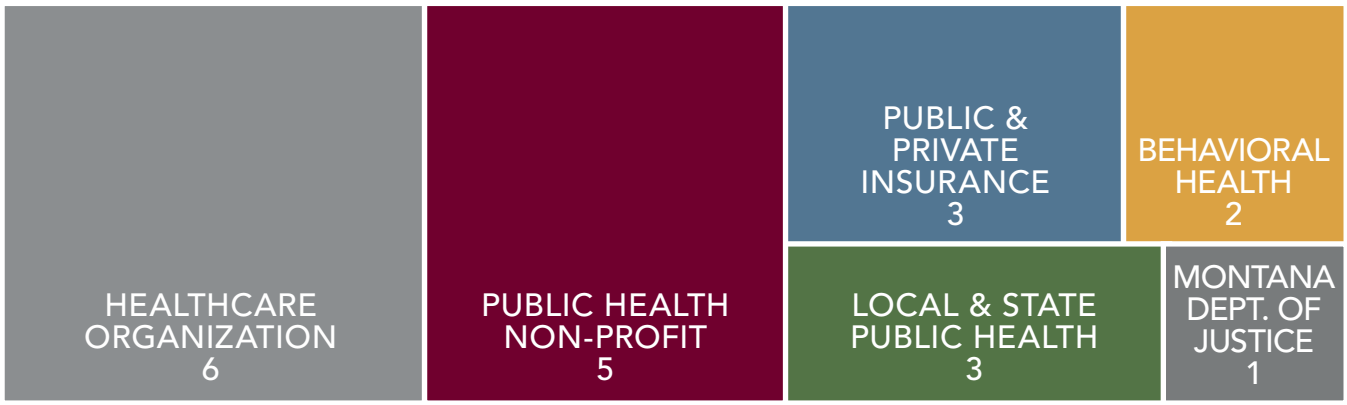
The MHLC guides and advises the implementation of the MOMS program.

Membership

The Council includes 19 members from a diverse set of organizations, including public and private healthcare provider and payer organizations, state and local public health professionals, and multidisciplinary local providers. See Appendix A for a list of year 2 MHLC membership. Figure 1 shows Council membership by organization type.

Figure 1. Council Membership by Organization Type

Maternal Health Leadership Council members by organization type (N=19)



Council Activities

In year 2, nine meetings were held via Zoom. Table 1 lists key Council meeting topics by date for year 2.

Table 1. Year 2 Maternal Health Leadership Council Meeting Topics

Meeting Date	Key Topics	Participants (N)
10/27/20	Maternal mortality review proposal, strategic plan, maternal health report.	12
12/8/20	PRAMS data presentation, MMRC, Year 1 evaluation report, public education campaign, leadership council survey results.	14
1/26/21	Guest presentation – St. Peter's Health Maternal Mental Health Program.	13
2/23/21	Guest presentation – Flathead Postpartum Resource Center.	15
3/23/21	Guest presentations – Meadowlark and PRISM, Legislative policy update MPCA. Mini-grant proposal approval, MMRC.	16
4/27/21	Guest presentations – CDC LOCATe, Riverstone Health Family Health Services. Subcommittee reports.	14
5/25/21	Guest presentation – Strengthening Families Initiative. Data presentation by UM, Montana Maternal Health: By the Numbers.	10
6/22/21	MPCA navigator grant, strategic plan.	9
9/14/21	Approve final strategic plan, MOMS mini-grant awardee presentation.	13

Year 2 Council Activities

- **New membership:** Four new members joined the Council. Jennifer Wagner, Rural Hospital Improvement Coordinator, Montana Hospital Association; Dr. Steven Williamson, Medical Director, Billings Area Office of Indian Health Services; Jennifer Verhasslet, Rimrock Foundation; and Dr. JP Pujol, Montana Blue Cross Blue Shield.

- **Guest presentations:** The Montana Winners of the Agency for Healthcare Research and Quality's (AHRQ) Cross-Sectional Innovation to Improve Rural Postpartum Mental Health presented on their projects to the Council.

    - Kelsey Kyle, RN, presented on St. Peter's Health's new parental support program, Taking Care of You. The program is dedicated to supporting parents, guardians, and families experiencing a variety of stressors, including mental health and substance use challenges, during pregnancy and up to one year postpartum.

    - Jana Sund, CNM, presented on the Postpartum Resource Center, a non-profit focused on advocacy, support, and resources for mothers experiencing postpartum mood disorders in the Flathead Valley. The Center's work includes training for postpartum doulas, monthly peer-to-peer support groups, online peer support forums, and a Mothers-in-Need fund.

- **Subcommittee activities:** The Education Subcommittee formed in February 2021 to work with MOMS program staff to identify education needs for maternal health providers statewide. The Education Subcommittee convened once during year 2 and decided to hold off meeting until the MOMS program staff had a clear focus for the group. The Maternal Health System Needs Assessment conducted by UM includes a focus on education and training needs of maternal health providers. The needs assessment and specific surveys are described in Objective B.
- **Council recommendations:** The Council voted to approve the mini-grant program, to create a Montana specific MMRC, and to implement the CDC Levels of Care Assessment Tool (LOCATe) initiative in Montana.
- **Mini-grant program:** The Council solicited and reviewed 25 applications for the mini-grant program.
- **Ongoing feedback on MOMS activities:** The Council provided ongoing feedback and support regarding MOMS initiatives – the MPQC, MMRC, and the Maternal Health System Needs Assessment.
- **Strategic planning:** The Council provided input and reviewed the Strategic Plan for year 3. The Council also conducted an internal survey on structure, strengths, and areas for improvement and applied these findings to improve overall functioning.

Activity 1.2

Maternal Health Strategic Plan

Yearly, each State MHI program is required to create and submit a state-specific Maternal Health Strategic Plan (MHSP) to HRSA by September 29, 2021. The MOMS Leadership team (UM, Billings Clinic, and DPHHS) met for strategic planning June 2, 2021. During this meeting, each entity shared their strategic plan for Year 3 of the MOMS Program. DPHHS consolidated the content discussed at the meeting into the final MHSP.

The MHSP included state program goals for 2019-2024, focused on the following areas: data; health care delivery; financing; workforce; leadership and governance; and medical products, vaccines, and technology. These focus areas align with the building blocks in the World Health Organization (WHO) Strengthening Health Systems framework. The MHSP was approved by HRSA.

The MHSP is informed by an ongoing needs assessment conducted by UM.

Maternal Health System Needs Assessment

In year 1, Billings Clinic conducted a needs assessment to gather actionable data in three areas: 1) provider/health team needs, 2) health system needs, and 3) patient needs. In year 2, UM built upon this initial work and initiated a broader Maternal Health Systems Need Assessment. The needs assessment work started at the end of year 2 and will carry forward into year 3.

The needs assessment utilizes the WHO Strengthening Health Systems to Improve Health Outcomes framework. The WHO framework includes six building blocks of a health system: Service Delivery, Health Workforce, Health Information System, Medical Products, Vaccines, and Technologies, Sustainable Financing and Social Protection, and Leadership and Governance. These building blocks highlight essential functions within the system and help identify strengths, challenges, and where change and investment are needed.

Centers for Disease Control Levels of Care Assessment Tool

UM partnered with the CDC to implement LOCATe in Montana. Created by the CDC using standards of care established by the American Academy of Pediatrics (AAP), ACOG, and the Society for Maternal-Fetal Medicine (SMFM), LOCATe assesses levels of risk-appropriate neonatal and maternal care. Risk-appropriate care is a strategy to improve maternal and neonatal health by ensuring that women and infants receive care at facilities prepared to meet their needs. Facilities are classified into levels based on equipment, staff, and volume of services. Delivering at risk-appropriate facilities can improve outcomes for mothers and their infants.

CDC presented on LOCATe at the MHLC meeting in April 2021. The Council unanimously endorsed the implementation of LOCATe in Montana. UM partnered with DPHHS and MHA to recruit hospitals to participate in LOCATe. Twenty-six birthing facilities were invited to participate in the Montana LOCATe initiative. UM hosted a kickoff webinar with hospitals in July 2021. Data collection began in August of 2021 and continued through October 2021. UM extended the data collection period due to the constraints COVID-19 placed on hospitals.

Looking Ahead Year 3

UM will send the data to partners at CDC for analysis. UM will prepare individual reports and a statewide report for dissemination in year 3.

Emergency Obstetric Services Survey

Limited information is available in Montana on local capacity and preparedness to support emergency obstetrics services. The rurality of Montana and distance to a higher-level facility adds further complication to providing risk-appropriate care. Distance, harsh winters, and communities with limited obstetric care are barriers to providing risk-appropriate care and require additional planning and preparedness. Due to distance to care, pregnant people in rural communities might seek care or deliver at a hospital without an obstetric unit.

UM developed a survey instrument to gather information on emergency obstetric services from rural critical access hospitals without an obstetric unit. UM adapted questions from a national study on emergency obstetric services in rural hospitals without an obstetric unit and included the obstetric care indicators outlined by WHO.

Looking Ahead Year 3

UM will launch the survey in year 3. The information collected will complement the data gathered from LOCATe and contribute to a broader understanding of the maternal and neonatal care landscape in Montana.

Maternity Experiences Survey

The needs assessment will include a survey to gather information on patient experiences interacting with the healthcare system before, during, and after pregnancy to identify unmet needs. UM identified several valid and reliable instruments to assess patient experiences with maternity care.

- **Mothers on Respect Index[1]:** is a scale developed to assess the nature of respectful patient-provider interactions and their impact on a person's sense of comfort, behavior, and perceptions of racism or discrimination.

- **Mistreatment Index[2]:** is a set of patient-designed indicators of mistreatment: physical abuse, sexual abuse, verbal abuse, stigma and discrimination, failure to meet professional standards of care, poor rapport between women and providers, and poor conditions and constraints presented by the health system.

- **Rural Pregnancy Experiences Scale[3]:** designed to assess the unique worry and concerns reflective of the stress and anxiety of rural pregnant women related to pregnancy and childbirth.

Looking Ahead Year 3

UM will partner with A.D. Creative Group, a marketing firm based in Billings, Montana, to design a series of Facebook ads targeted at the priority population. UM will conduct a social media campaign to recruit participants for the maternity experiences survey. The survey will launch in year 3.

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[1] Vedam S, Stoll K, Rubashkin N, et al. The Mothers on Respect (MOR) index: measuring quality, safety, and human rights in childbirth. Social Science and Medicine: Population Health. http://dx.doi.org/10.1016/j.ssmph.2017.01.005.

[2] Vedam, S., Stoll, K., Taiwo, T. K., Rubashkin, N., Cheyney, M., Strauss, N., ...& the GVtM-US Steering Council. (2019). "The Giving Voice to Mothers study: Inequity and mistreatment during pregnancy and childbirth in the United States". Reproductive Health, June 11, 1-18. DOI: 10.1186/s12978-019-0729-2

[3] Kornelsen, J., Stoll, K., Grzybowski, S. Development and Psychometric Testing of the Rural Pregnancy Experience Scale (RPES). Journal of Nursing Measurement, 19, 115-128. DOI: 10.1891/1061-3749.19.2.115

Leadership Council Interviews

UM conducted interviews with MHLC members to gather further information on the barriers and strengths of the WHO Health System building blocks. Eleven leadership council members participated in an interview.

UM conducted an initial review of the interview transcripts and identified several themes.

- **Barriers to Service Delivery:** distance to care, access to care in rural communities, transportation, and provider lack of skill/training.
- **Healthcare Workforce Needs:** workforce shortages and hiring issues, care coordination, education, and training needs.
- **Sustainable Financing:** Medicaid expansion has helped increase access to care, but there is still room for improvement.
- **Other emerging themes:**
  - o Collaboration/care coordination
  - o Intimate partner violence
  - o Postpartum period
  - o Implicit bias

UM will continue analysis of the Council interviews and prepare a report to disseminate to the MHLC in year 3.

UM Research Studies Implemented in Year 2

The MOMS research team initiated several research studies in year 2 to gather further information on maternal health in Montana. These studies focus on experiences of pregnant people and providers within the maternal health system. The results from these studies will feed into the broader Maternal Health Systems Needs Assessment and inform future MOMS project activities. These studies include:

Provider Survey: Understanding and Improving Barriers to Treatment and Care of Postpartum Depression

PI: Marcy Hanson, MN, RN

Purpose of the study

Identify provider bias related to treatment and care of pregnant women with substance use disorder.

Methodology

A survey, informed by the Knowledge, Attitude, and Practice model and based on a survey by Munoz, Suchy and Rutldege, was distributed to obstetric providers (MD, RN, PA, APRN, and SW). The survey addressed provider knowledge, attitudes, and practice regarding substance use during pregnancy and the care of women who utilize substances during pregnancy to

better understand implicit bias among obstetric care providers. The survey was sent to obstetric providers through a listserv housed by Billings Clinic and was open September 4, 2021 to October 11, 2021. The UM Institutional Review Board approved the study under Protocol #: 100-21.

Results

Ninety-seven providers participated in the survey. The participants included multiple provider/professionals including OB/GYNs, RNs, APRNs, PAs, LCSWs, SW, therapists, and pharmacists, providing maternal care within Montana. Data analysis is currently in progress.

Looking Ahead Year 3

Survey data analysis will begin in year 3. The data from the survey will be used to compose a manuscript for publication in an academic journal in spring of 2022.

Facilitators and Barriers to Seeking Postpartum Care

PI: Marcy Hanson, MN, RN

Purpose of the study

Identify risk and protective factors associated with seeking care for postpartum depression (PPD) symptoms among Montana women who use substances.

Methodology

In partnership with EMPATHS, pregnant women who qualify for services due to substance use will be invited to participate in a qualitative interview. Participants will be interviewed using a qualitative descriptive approach informed by the Behavior Model of Health Services. These interviews will provide understanding regarding knowledge of and barriers to receiving care for PPD. The UM Institutional Review Board approved the study under Protocol #: 163-20.

Looking Ahead Year 3

Recruitment will begin in year 3. The MOMS care coordinator at Billings Clinic will invite individuals to participate in the interviews.

The Narrative Study

PI: Courtney Gerard, MS

Purpose of the study

Conduct an ethnographic, narrative study looking at risks and protective factors for maternal health in rural and frontier communities in Montana. Information will be gathered through interviews with rural men and women, and with physicians on rural rotations in Montana.

Methodology

The lead researcher has established relationships with ranchers across eastern Montana, the Western Landowners Association, and with reservation-based groups of rural men and women. Through these networks, the research team will invite individuals to participate in interviews and focus group discussions. Physicians will be recruited through studies conducted by Family Medical Residents of Western Montana and via one-on-one recruitment efforts in clinics in eastern Montana. Billings Clinic could prove to be an asset in identifying applicable clinics to recruit physicians. The UM Institutional Review Board approved the study under Protocol #: 140-21.

Looking Ahead Year 3

Recruitment and data collection will occur in year 3. The goal is to develop a better understanding of the strengths and weaknesses in rural medicine for people during pregnancy, labor and delivery, and in the postpartum period in rural areas across Montana. This information will help the broader MOMS network and community of providers to develop initiatives and refine practice to improve access, quality, and continuity of maternal healthcare for rural families and physicians. The results of the study will be shared in national news outlets and a manuscript will be submitted to an academic journal.

Contraceptive & Postpartum Care Survey

PI: Annie Glover, PhD, MPH, MPA

Purpose of the study

Understand current practices related to the provision of perinatal care, particularly contraception services and postpartum care. The results of this survey will be used to inform future MOMS programmatic trainings and healthcare provider education.

Methodology

UM will disseminate the survey to 938 maternal health providers (OBs, NP, Family Medicine MDs, CNM, PAs) across Montana via email and mail.

Looking Ahead Year 3

In year 3, the study will be submitted to the UM Institutional Review Board for approval. The survey will launch in spring of 2022. Findings will contribute to scientific evidence around the provision of contraceptive and postpartum care.

Activity 1.3

Conduct Community Education and Screening to have annual well-woman visit, initiate 1st trimester prenatal care, maintain prenatal care, seek insurance coverage, receive postpartum screening and care

DPHHS contracted with Windfall, Inc., a Missoula, Montana Ad Agency, for the public education campaign. DPHHS and Windfall met monthly in year 2 to coordinate and plan the campaign. Windfall developed a series of images and tag lines promoting prenatal care for a digital advertising and social media campaign. The image and tag lines received feedback from the MOMS leadership team and Council members. Windfall completed photo and video shoots of four pregnant and parenting Montana mothers to be used in multiple facets of the campaign. MOMS staff worked closely with DPHHS leadership to ensure each step in the messaging progression of the campaign is strategized to be effective, goal-focused, and results-oriented. The Community Education campaign will launch in year 3.

Objective B: Measure Maternal Health in Montana

Strategy 2	Collect and analyze maternal health data
Activity 2.1	Collect and centralize MMRC
Activity 2.2	Gather maternal health indicators from BRFSS, PRAMS, Vital Stats, Medicaid, Hospital Discharge Data, Perinatal Behavioral Health Initiative, and other relevant programs
Activity 2.3	Prepare annual report on maternal health

Activity 2.1

Maternal Mortality Review Committee

In year 2, the MHLC voted to endorse building a Montana-specific MMRC instead of joining a regional committee. DPHHS asked the Council and the local county Fetal, Infant, Child, and Maternal Mortality Review (FICMMR) leaders for recommendations of potential MMRC members, with the goal of building a large multidisciplinary group according to the CDC's recommended roles, disciplines, and organizations. MOMS staff submitted a final list of recommendations to DPHHS leadership for review and approval. DPHHS met consistently with CDC throughout year 2 to discuss planning and preparation for the MMRC. CDC developed a job description for a nurse consultant who will serve as the abstractor for the MMRC. The first MMRC meeting convened at the start of year 3 on October 19, 2021. For a list of year 2 MMRC members, see Appendix B.

In January 2021, the decision brief recommending establishing a state-level MMRC was forwarded to DPHHS leadership for consideration after development based on research, consultation with other states, input from county FICMMR teams and input from the MOMS MHLC. While waiting on final approval and next steps from the DPHHS leadership to establish the MMRC, MOMS program staff at DPHHS solicited recommendations from the MOMS Council and FICMMR leaders on qualified potential members to invite to serve on the MMRC. A document from the CDC's Review to Action website with recommended organizations and disciplines was shared to help inform recommendations. The Montana Primary Care Association of federally qualified health centers sent the request out to all their members asking for recommendations. A list of the compiled recommendations was forwarded to the division administrator at the end of April and was approved by DPHHS in July 2021. All the recommended members were appointed in August 2021 and all except two of those accepted the appointment to serve.

Activity 2.2

Gather maternal health indicators from BRFSS, PRAMS, Vital Stats, Medicaid, Hospital Discharge Data, Perinatal Behavioral Health Initiative, and other relevant programs

DPHHS has contracted with UM to compile and analyze maternal health indicators across available relevant data sources. Progress with these data sources is summarized below.

Behavioral Risk Factor Surveillance System

DPHHS and UM entered into a data use agreement (DUA) in December 2019 to enable the Behavioral Risk Factor Surveillance System (BRFSS) analysis for MOMS. The Office of Epidemiology and Scientific Support, housed in the Public Health and Safety Division at DPHHS, has provided significant support and assistance with ensuring that BRFSS statistics are available to inform MOMS activities. Relevant datapoints provided by BRFSS include routine checkup with a physician; insurance coverage; family planning; mental health; and substance use.

Vital Statistics

DPHHS and UM established a DUA for birth records analysis to be conducted at UM, and Institutional Review Board approval was granted for research using this data in September 2020. An additional DUA was established with UM for death records analysis in year 2 to support the MMRC. The Office of Epidemiology and Scientific Support at DPHHS has provided significant support and assistance with ensuring that vital statistics are available to inform MOMS activities. Relevant data points on the Montana birth record include birthrate; site of delivery; pregnancy risk factors; delivery outcomes; cesarean section; and prenatal care utilization.

Hospital Discharge Data

MHA and UM entered a DUA in August 2020 to enable the use of hospital discharge data for a study on severe maternal morbidity. In year 2, these data were also utilized in setting baseline measures for the MPQC obstetric hemorrhage safety bundle outcome reporting to AIM. MHA has been an enthusiastic partner of the MOMS project, and this study will facilitate a better understanding of near miss events in hospitals across the state to drive clinical improvements that are targeted to Montana's unique needs. Relevant datapoints in the hospital discharge dataset include severe maternal morbidity by type—acute myocardial infarction; aneurysm; acute renal failure; adult respiratory distress syndrome; amniotic fluid embolism; cardiac arrest/ventricular fibrillation; conversion of cardiac rhythm; disseminated intravascular coagulation; eclampsia; heart failure/arrest during surgery or procedure; puerperal cerebrovascular disorders; pulmonary edema/acute heart failure; severe anesthesia complications; sepsis; shock; sickle cell disease with crisis; air and thrombotic embolism; blood products transfusion; hysterectomy; temporary tracheostomy; and ventilation.

Pregnancy Risk Assessment Monitoring System

Administered in partnership between the CDC and states, the Pregnancy Risk Assessment Monitoring System (PRAMS) survey has been conducted in Montana since 2017. The PRAMS program is housed in the Family and Community Health Bureau in the Early Childhood and Family Support Division. PRAMS provides data reports to the MOMS program for the annual Maternal Health Report as well as information that is used in educational and outreach presentations to maternal health stakeholders around the state. Relevant data points available in PRAMS include health status and behaviors prior to and during pregnancy; pregnancy intention; health insurance; prenatal care; family planning; mental health; oral care; substance use; and postpartum care.

Maternal Death Records

In year 2, UM entered a DUA with the Montana Office of Vital Records administered by the Office of Epidemiology and Scientific Support. The DUA proposed a descriptive and bivariate analysis of pregnancy associated deaths from January 1, 2003, to December 31, 2019. Counts will be generated of deaths at 5-year intervals and disaggregated to proportions by cause, race, age, marital status, education, and rurality. The data will be used to prepare the MMRC and clinical community for maternal mortality review. The MMRC will conduct investigations of pregnancy associated deaths in Montana to determine pregnancy-relatedness, understand root causes of mortality events, and identify preventability and interventions to reduce maternal mortality.

Activity 2.3

Maternal Health Report

The second annual Maternal Health Report was prepared by UM and submitted to HRSA on September 30, 2021. UM has expanded upon the HRSA report, gathering further information on maternal health in Montana for submission to DPHHS in November. This expanded report includes sections on substance use in pregnancy and the indigenous experience of maternal health in Montana.

Severe Maternal Morbidity Report

The first Severe Maternal Morbidity (SMM) Report was prepared and finalized by UM in September 2021.

Methodology

This report used de-identified data compiled from the Montana Hospital Discharge Data System, administered by the MHA. The study population included all Montana residents aged 11-50 years who had a hospitalized delivery at a health facility that reports data to the MHA, between January 1, 2016, and December 31, 2018. The final report was sent to hospitals and was utilized in the implementation of the MPQC. The SMM report is on file with the MOMS website.

Results

This study identified increased risk of SMM by age, patient rurality, Medicaid status, and race. Patients for whom the primary payer for delivery was Medicaid had an increased risk of SMM compared to patients with private insurance, those who paid out-of-pocket for delivery, and those who had other public insurance. Both younger (less than 20 years) and older (35 years or more) patients had an increased risk of SMM compared to patients 20-34 years old. American Indian/Alaska Native (AI/AN) patients were three times more likely to experience SMM compared to white patients; the largest increase in risk among the demographic risk factor groups. Residents of noncore counties, the least populated classification category in the 2013 National Center for Health Statistics (NCHS) Urban-Rural Classification Scheme, had a higher risk of SMM compared to small metro residents, the most urban classification category in the sample.

The findings in this report match national-level trends in health disparities and highlight a path forward for improving maternal outcomes in Montana. Creating culturally appropriate and well-targeted maternal health programs for AI/AN and rural Montanans can reduce SMM across the state. AI/AN individuals are more likely to live in rural counties; therefore, effective programs must address both challenges faced by these communities. Health providers and public health practitioners should partner with AI/AN and rural populations to develop effective initiatives. Learning from and working with impacted communities will ensure that patients feel empowered and supported throughout their pregnancy and lead to improved obstetric outcomes.

Objective C: Promote and Execute Innovation in Maternal Health Service Delivery

Strategy 3	Provide technical assistance to medical and public health providers to improve maternal health interventions
Activity 3.1	Conduct professional development and maternal health grand rounds through Project ECHO
Activity 3.2	Disseminate best practices in screening, assessment, clinical care, and community health initiatives in maternal health
Activity 3.3	Provide nursing certification opportunities for Neonatal Resuscitation Program (NRP), Electronic Fetal Monitoring (EFM), Sugar, Temperature, Airway, Blood pressure, Lab work and Emotional support (STABLE) and Pediatric Advanced Life Support (PALS)
Activity 3.4	Provide Simulation in Motion-Montana (SIM-MT) mobile high fidelity simulations for non-birthing, critical access hospitals
Activity 3.5	Provide ACOG Emergencies in Clinical Obstetrics (ECO) training opportunities for all levels of providers in birthing hospitals covering breech vaginal delivery, shoulder dystocia, postpartum hemorrhage, umbilical cord prolapse, and teamwork/communication
Strategy 4	**Conduct demonstration project to test telehealth interventions in maternal health in rural and AI/AN communities**
Activity 4.1	Facilitate co-management of high-risk patients with urban-based specialists and rural based generalists
Activity 4.2	Establish access to multidisciplinary specialist, via live or telemedicine program in rural communities
Strategy 5	**Pilot telemedicine facilitated approaches to perinatal care**
Activity 5.1	Enable telehealth to integrate behavioral health services into prenatal and postpartum care using: mental health screening and treatment; SUD screening and treatment; and medication-assisted treatment (MAT)
Activity 5.2	Support multidisciplinary network of providers to expand service access in rural communities by implementing telehealth and outreach clinics for medical and behavioral health services

Activity 3.1

Conduct professional development and maternal health grand rounds through Project ECHO (Extension for Community Healthcare Outcomes)

Project ECHO was developed at the University of New Mexico Health Sciences Center to help improve access to care for complex chronic health conditions. The ECHO model includes specialists located at a "hub" site that connect with numerous community partner sites, "spokes", to facilitate virtual case based learning and short didactic presentations. Project ECHO builds capacity through virtual education and training of local primary care providers seeking to improve their skills in managing and treating complex health conditions. Billings Clinic launched Project ECHO in year 1.

Participants

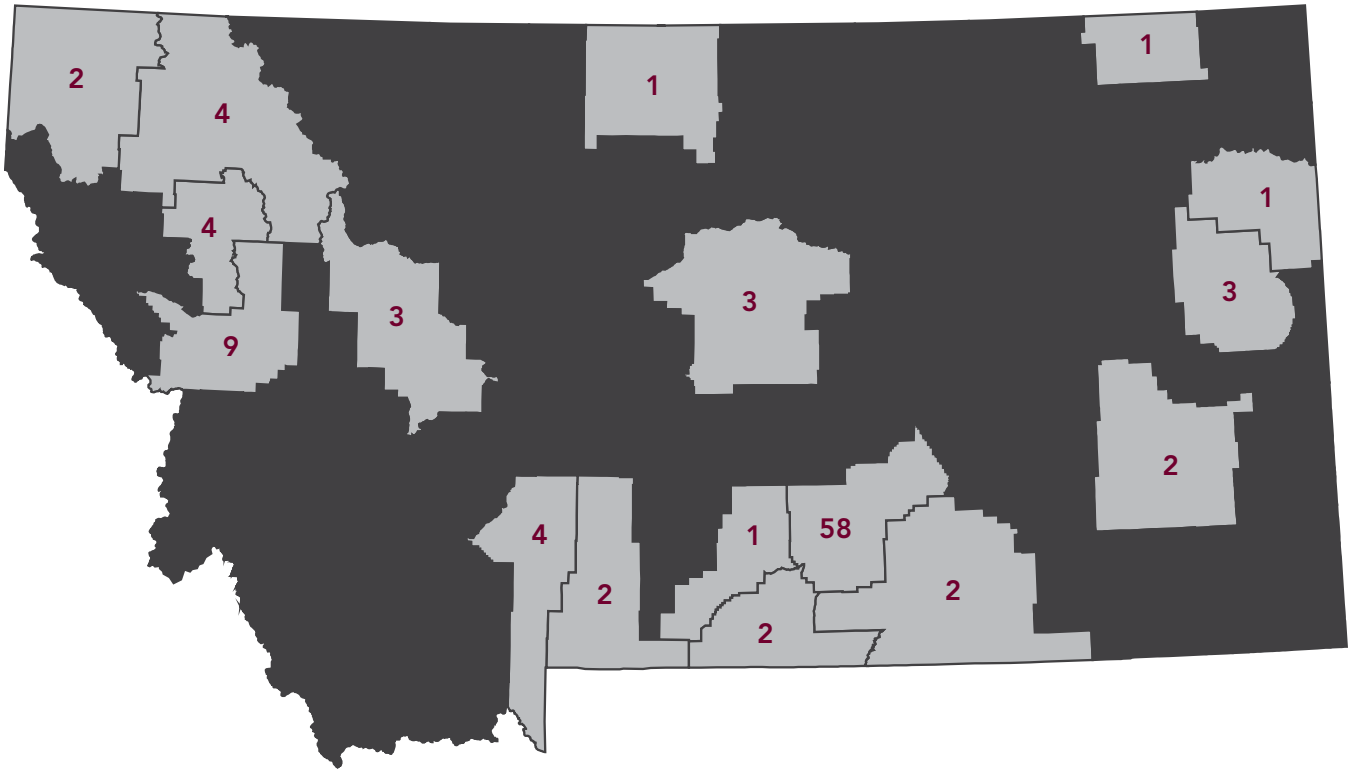
22 ECHO Clinics were hosted in year 2; see Table 2 for the list of ECHO Clinics and the number of spoke participants. There were 163 unique spoke participants across year 2 ECHO Clinics. This included 110 clinical spoke participants, 20 non-clinical attendees, 22 students, and 11 attendees who did not report their organization or role.

Table 2. ECHO Clinics and Clinical Spoke Participants

Date	ECHO Clinic Topic	Participants (N)	Case Presentation
10/13/2020	AIM: Maternal Venous Thromboembolism	**21**	**Yes**
10/27/2020	AIM: Obstetric Hemorrhage	**18**	**Yes**
11/20/2020	AIM: Safe Reduction of Primary Cesarean Birth	**19**	**Yes**
12/8/2020	Rural Maternal Health Practices –New Mexico	**23**	**Yes**
1/12/2021	AIM: Severe Hypertension in Pregnancy	**14**	**No**
1/26/2021	Domestic Violence	**28**	**Yes**
2/9/2021	Less Trauma Mama	**29**	**Yes**
2/23/2021	AIM: Maternal Mental Health	**24**	**Yes**
3/9/2021	AIM: Postpartum Care Access Standards	**22**	**No**
3/23/2021	Peer Support: Supporting Montana Families	**20**	**No**
4/13/2021	4th Trimester Project	**24**	**No**
4/27/2021	Maternal Health Data in Montana	**19**	**Yes**
5/11/2021	Remifentanil PCA	**9**	**Yes**
5/25/2021	Maternal Sepsis	**24**	**Yes**
6/8/2021	Postpartum Contraception	**29**	**No**
6/22/2021	Health Equity in Pregnancy	**19**	**No**
7/13/2021	Physical and Occupational Therapy in the OB World	**22**	**No**
7/27/2021	Grief and Loss Support: Infant/Child Loss and Infertility	**15**	**No**
8/10/2021	Physiologic Birth and Pain Management	**18**	**Yes**
8/24/2021	Perinatal Psychosis	**19**	**No**
9/14/2021	Pelvic Health	**23**	**No**
9/28/2021	Recognizing Domestic Violence	**19**	**No**

Participants were from 18 counties across Montana and six participants from healthcare facilities out of state (24 participants did not report their facility). Figure 2 shows the number of participants by county in Montana.

Figure 2. Year 2 ECHO Unique Clinical Participants by County (N=102)



Continuous Quality Improvement

UM evaluation team members observed the ECHO Clinics and completed a TeleECHO Session Scorecard adapted from materials created by the University of New Mexico Health Sciences and ECHO Institute. The scorecard evaluates the meeting logistics, connectivity/IT, and the didactic and case presentations. Overall strengths and areas for improvement are summarized below.

Strengths:

- **Attendee Engagement** – demonstrated by participation in discussion, asking questions, and sharing information and resources in the chat. It is evident that the ECHO Clinics have created a strong community of practice. Providers have consistent attendance which contributes to building relationships across disciplines and communities. The environment is supportive and collaborative.
- **Engaging Discussion** – demonstrated by a meaningful discussion between presenters and spoke participants. A variety of participants engage in the dialogue.
- **Telehealth Delivery** – demonstrated by starting on time, participants connecting easily, quality sound and video for hub site, repeated questions when needed, and IT assistance.

Areas for Improvement:

- **ECHO Clinic Guidelines** – follow ECHO Clinic timeframes, include a specific question at the start and end of the case presentation to prompt discussion, and encourage participants to use cameras to enhance engagement.
- **Recruitment of Cases** – In year 2, ten of the twenty-two ECHO Clinics did not have a formal case presentation. The case presentation is an essential component of the ECHO Clinic model.

After each ECHO Clinic, participants received an online evaluation. The program collected 159 participant evaluations in year 2. Evaluations collect information on ECHO Clinic content, quality, enhancement of knowledge, relevance to practice, and application. Figure 3 shows combined responses from all ECHO Clinics on the enhancement of knowledge, and Figure 4 shows combined responses on the application to practice. Ten ECHO Clinics this quarter did not include a formal case presentation (1/12, 3/9, 3/23, 4/13, 6/22, 7/13, 7/27, 8/24, 9/14, 9/28). The evaluation team removed the case presentation responses from these dates in the analysis.

Figure 3. Enhancement of Knowledge

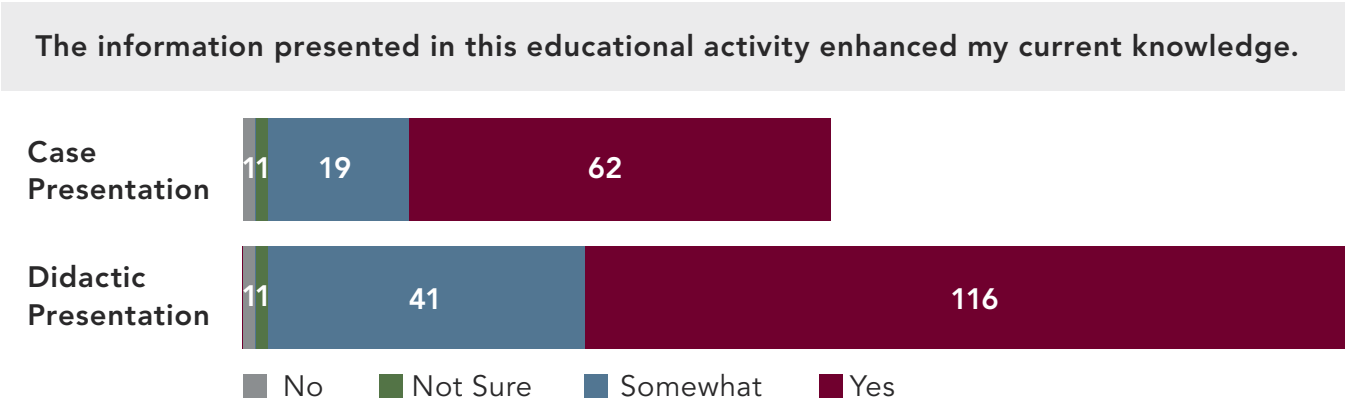
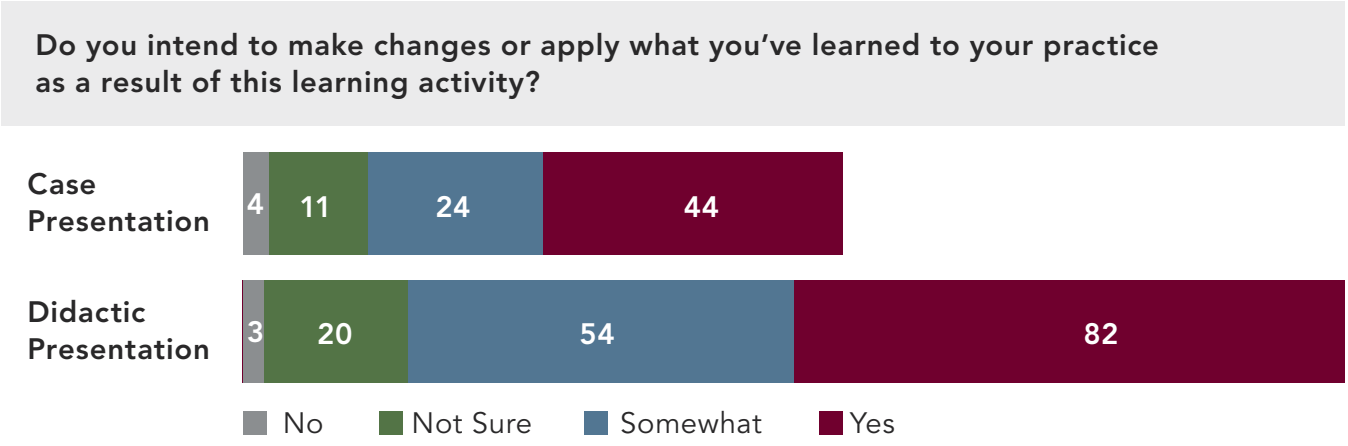


Figure 4. Application to Practice



The evaluation includes a set of open-ended questions. Participants are asked to share feedback on potential changes to their practice based on the ECHO presentation and suggestions for future topics. Below are a couple comments submitted by ECHO participants.

- "The information presented will allow me to present and discuss important pregnancy related health risks to patients that I work with." –ECHO Participant
- "I will continue to advocate for trauma informed and trauma engaged approach to care by all providers to reduce and/or eliminate the unnecessary, albeit unintended, harm and trauma caused to our patients by their health care providers." –ECHO Participant

UM evaluation team members submit quarterly reports to Billings Clinic staff summarizing ECHO Clinic observations and participation evaluations. Information from these reports supports continuous quality improvement of ECHO Clinic delivery. Through Project ECHO, MOMS has developed a community of practice that engages interdisciplinary specialists and community-based partners. The ECHO Clinics build knowledge and capacity among community clinicians through case-based learning, knowledge networks, and learning loops. The maternal health grand rounds that Project ECHO facilitates aim to improve overall care quality, reduce provider isolation, and create a united community of practice where rural and urban providers can connect and learn. The second year of Project ECHO continues to make progress toward these goals.

In year 3, the Billings Clinic team will work to increase the utility and quantity of case presentations, continue to implement strategies to increase participation among rural providers, and build upon the strong community of practice to connect providers across the state.

Activity 3.2

Disseminate best practices in screening, assessment, clinical care and community health initiatives in maternal health

Billings Clinic has contracted with A.D. Creative Group for MOMS marketing and communications. The MOMS website was launched in February 2020. Table 3 summarizes marketing activities by quarter and Figure 5 shows examples of the materials created with A.D. Creative Group. Figure 6 shows MOMS website unique page views by quarter for year 2.

Table 3. Year 2 Marketing Activities by Quarter

Quarter 1	
• Completed 4x contract with The Pulse, the official quarterly publication of the Montana Nurses Association Foundation reaching all Registered Nurses, Licensed Practical Nurses, Advanced Practice Nurses and Specialty Nurses. The MOMS ads in the Pulse included information on the MOMS program and training opportunities for Nurses.	• Promoted upcoming ECHO events through email marketing • Created Year 1 Highlights Flyer • Updated and maintained the MOMS Website, which included uploading the Assessment Participant Map and Year 1 Highlights Flyer
Quarter 2	
• Created and finalized Provider Tool Kits and Resource Guides	• Created an EMPATHS Flyer
Quarter 3	
• Created Community Resource guides for eight locations. • Created a Provider Tool Kit for obstetric hemorrhage • Assisted MOMS with the creation of MOMS pages for Facebook, Instagram, and LinkedIn.	• Worked with MOMS to procure several promotional items for MOMS to use as leave-behinds at training events and conferences items included: journals, Yeti mugs and water bottles, computer briefcases, bags, and notepads. • Created a MOMS Outreach Brochure
Quarter 4	
• Procured additional promotional items as leave behinds at promotional events and conferences including MOMS masks, t-shirts, and lanyards. • Created artwork for Billings Clinic Folder, which is provided to all Billings Clinic patients • Created half page ad for the Montana Nurses Association Convention to share information on MOMS training opportunities for Nurses. • Updated MOMS outreach brochure.	• Updated Outreach Brochure • Updated and maintained Website • A.D. Creative traveled with MOMS to Lewistown and Roundup, Montana to film providers who have taken advantage of MOMS learning opportunities to improve their ability to deliver care. The film was assembled into a ten-minute video presented at the 2021 National Maternal Health Innovation Symposium in Baltimore, Maryland.

Figure 5. Example Marketing Materials Created in Year 2

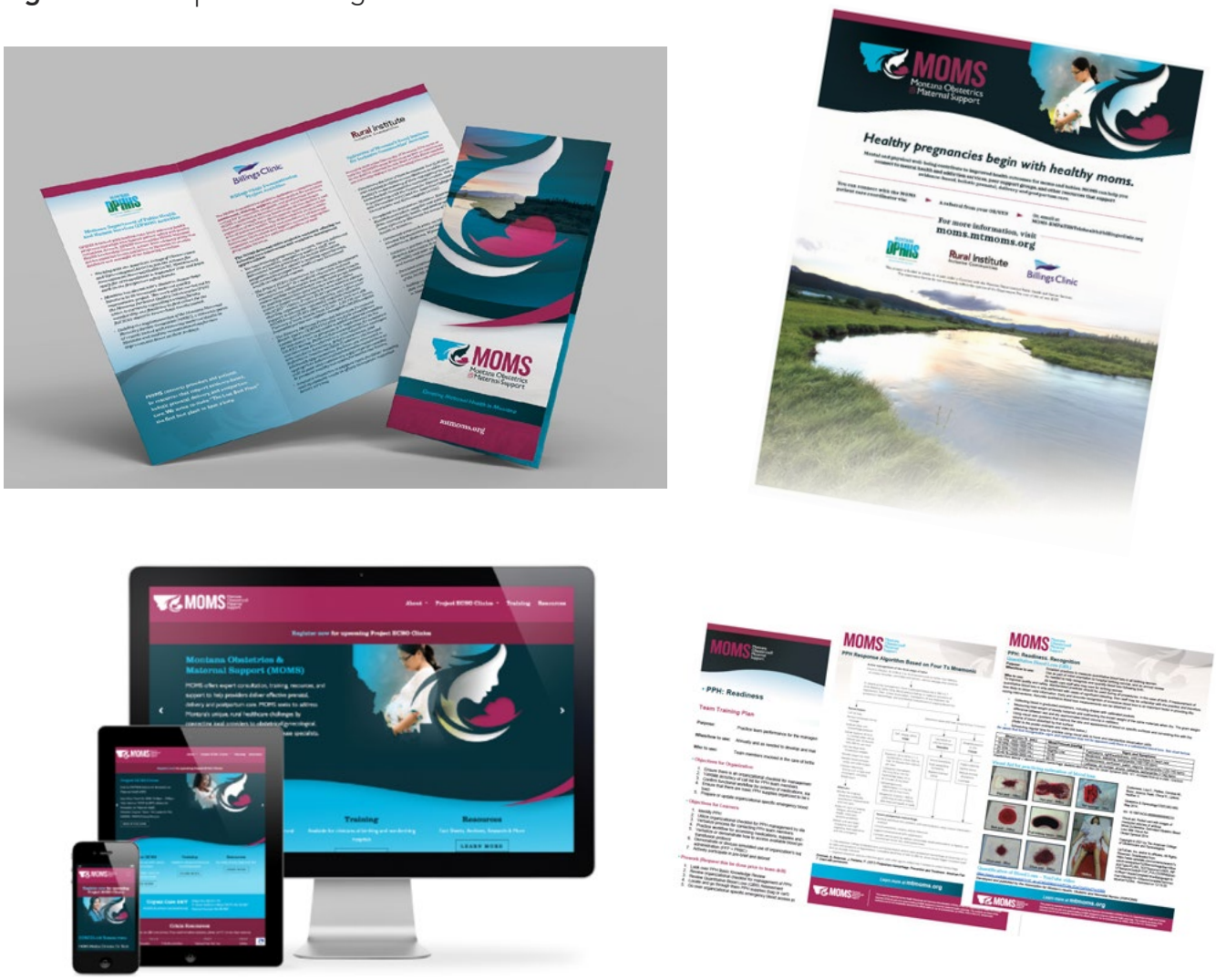
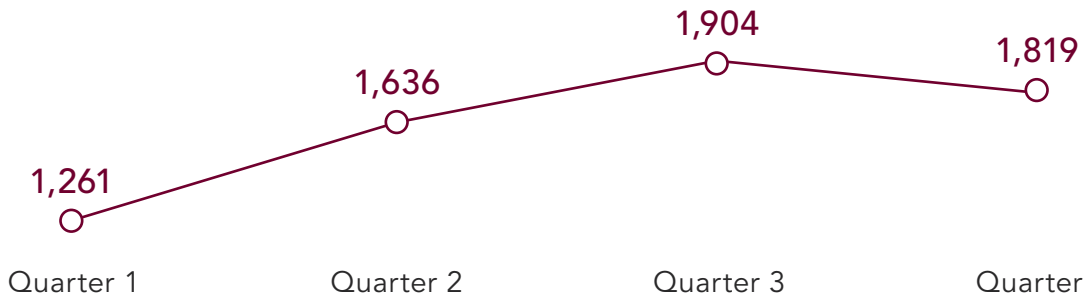


Figure 6. MOMS Website Unique Page View by Quarter

Y2Q3 had the most MOMS Website unique page views to date.
MOMS Website Unique Page Views by Quarter (10/1/2020 - 9/30/2021).



Dissemination of Maternal Health Resources

In year 2, the MOMS program began working on maternal health community resource guides, which were shared with their partner, Healthy Mothers Healthy Babies (HMHB), who had completed the Linking Infants and Families to Services, or LIFTS Online Resource Guide. The LIFTS Online Resource Guide contains thousands of programs and events that serve expecting parents or families with children aged zero to three. MOMS supported the launch of LIFTS by sharing information on the program through the MOMS networks.

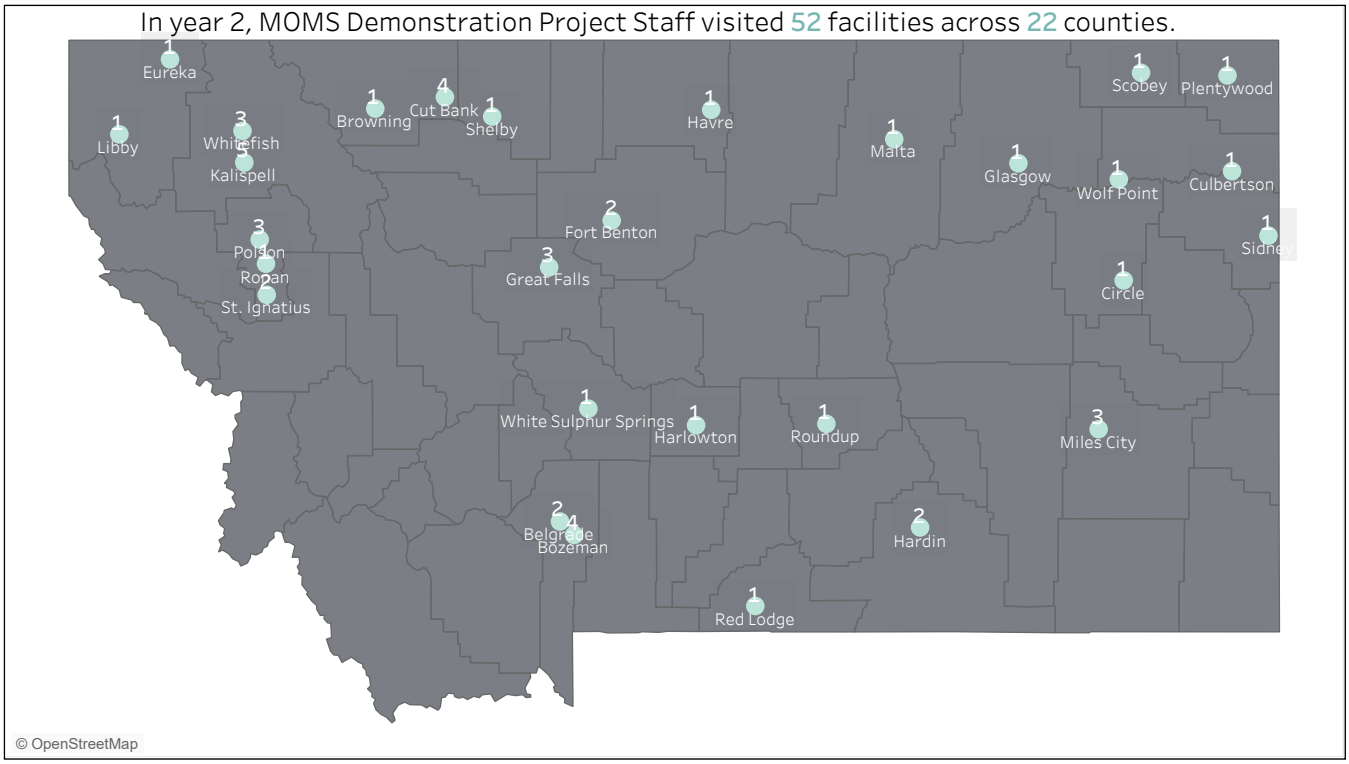
In year 2, the MOMS team added a "patient resources" tab to the MOMS website. This page includes resources for pregnancy planning, pregnancy health, pregnancy resources for American Indian populations, and postpartum care. The "other resources" tab on the website continues to share relevant maternal health information. Resources shared in year 2 included:

- Screening, Brief Intervention & Referral to Treatment (SBIRT) for Pregnant and Postpartum Women (10/14/20)
- Management of Primary Headaches in Pregnancy (11/13/20)
- Needs Assessment Participant Coverage Maps (11/16/20)
- U.S. Surgeon General: Call to Action to Improve Maternal Health (12/3/20)
- CMQCC Preeclampsia Early Recognition Tool (PERT) (12/11/20)
- MOMS Year 1 Highlights (12/15/20)
- EMPATHS (9/14/21)
- Linking Infants and Families to Services Program (10/4/21)
- Severe Maternal Morbidity in Montana Report (10/19/21)

Outreach Visits

Billings Clinic MOMS staff made 51 outreach visits in year 2, from May 28, 2021 to September 22, 2021. Several visits scheduled in the fall were postponed due to the surge of COVID-19 cases. The purpose of the outreach visits was to share an overview of the MOMS program, promote MOMS activities, and gather information on facility needs. These visits were successful; this success is demonstrated by the resulting new partnerships, increased participation in MOMS program activities (ECHO, SIM, EMPATHS), and high levels of engagement in MOMS initiatives which were presented at these outreach meetings (e.g., LOCATe, emergency obstetric survey, MPQC). Figure 7 highlights the cities and healthcare facilities visited.

Figure 7. Outreach Visits



Healthcare Facilities:
Belgrade: Community Health Partners, Headwaters Mental Heatlh. **Bozeman**: SCL Family Practice, Bozeman Heath Pediatrics, Bozeman Heatlh LDRP/NICU, Bozeman Health. **Browning**: Indian Health Services. **Circle**: McCone County Hospital. **Culbertson**: Roosevelt Memorial Hospital. **Cut Bank**: Glacier Community Health Center, Glacier County Health Department, Center for Mental Health. **Eureka**: Eureka Healthcare Primary Care/Prompt Care. **Fort Benton**: Fort Benton Medical Center. **Glasgow**: Frances Mahon Deaconess Hospital. **Great Falls**: Benefis Primary Care, Benefis OBGYN, Center for Mental Health. **Hardin**: Big Horn Memorial Hospital, OneHealth. **Harlowton**: Wheatland Memorial. **Havre**: Bullhook Community. **Jordan**: Garfield County Public Health. **Kalispell**: Kalispell OBGYN Associates, Montana Children's Maternal Fetal Medicine, Western Montana Mental Health Center, Intermountain Flathead Community Services, Logan Health. **Libby**: Northwest Community Health Center. **Malta**: Phillips County Health. **Miles City**: Two Rivers Wellness, Billings Clinic Miles City. **Plentywood**: Sheridan Memorial Hospital. **Polson**: PureHealth, St. Luke Community Clinic, Western Montana Addicition Services. **Red Lodge**: Beartooth Billings Clinic. **Ronan**: St. Luke's Community Hospital. **Roundup**: Roundup Memorial Hospital. **Scobey**: Daniels Memorial. **Shelby**: Marias Medical Center. **Sidney**: Sidney Health. **St. Ignatius**: CSKT Tribal Health, St. Luke's Community Clinic. **White Sulphur**: Mountain View Medical Center. **Whitefish**: North Valley Hospital, North Valley Behavioral Health, Sweetgrass Psychological Services. **Wolf Point**: NEMHS.

Siloed

The Siloed Series grew out of discussions between Billings Clinic, HMHB, DPHHS, and UM to highlight maternal health issues in Montana's agricultural communities. Billings Clinic reached out to UM and Montana State University (MSU) to build a filming crew. Jack Hueser, Noah Hence, and Nicole Hudson joined the filming team from MSU and Hazel Cramer from UM. The crew filmed two families in the summer of 2021, the Ahlgren Family in Grass Range, and the Petranek Family in Hilger.

Looking Ahead Year 3

Hazel Cramer, a recent UM grad, has taken on the role of the Siloed Series Director and will edit the year 2 Siloed Series into shorter segments that can be shared on MOMS social media. Cramer will guide the work of filming three additional families in year 3.

American Indian/Alaskan Native Educational Series

The AI/AN educational series has been postponed until 2022.

Presentations

The MOMS team presented at the following state meetings and conferences in year 2.

- Eby, A. & Glover, A.L. (2021). Healthy Pregnancies, Safe Deliveries, Supported Mothers: How MOMS is Improving Maternal Health through Policy, Data, and Collaboration. Presentation at virtual Montana Hospital Association Conference. September 2021.
- Eby, A. & Glover, A.L. (2021). Addressing the Unique Needs of Pregnant and Postpartum Individuals in Rural Areas. Maternal and Child Health Policy Innovation Program Policy Academy, National Academy for State Health Policy. September 2021.
- Fitch, S., McCracken, C., Reese, S., & Salyer, J. (2021). Eastern Montana Perinatal Addiction Treatment Health System (EMPATHS) & Montana Obstetric and Maternal Support (MOMS) Program– Presentation at virtual Maternal Health Learning and Innovation Center Annual Symposium. August 2021.
- Fitch, S., McCracken, C., Reese, S., & Salyer, J. (2021). Eastern Montana Perinatal Addiction Treatment Health System (EMPATHS) – Presentation at virtual Montana Hospital Association Conference. September 2021.
- Glover, A.L. (2020). Maternal Health by the Numbers. Presentation at Maternal Health Leadership Council virtual meeting.
- Glover, A.L. (2020). Maternal Health by the Numbers. Presentation at State Health Improvement Plan (SHIP) virtual meeting.
- Glover, A.L. (2020). Maternal Health by the Numbers. Presentation at MOMS Project ECHO virtual meeting.
- Glover, A.L. (2020). Maternal Health by the Numbers. Presentation at Montana Perinatal Association virtual meeting.
- Glover, A.L., Holman, C., Gerard, C., McKay, K. (2021). Telehealth Implementation in OBGYN Practices in the Rocky Mountain West in Response to COVID-19. Accepted interactive poster at Academy Health Annual Research Meeting.
- Glover, A.L. & Rentz, A. (2021). State of Maternal and Neonatal Morbidity & Mortality in Montana. Invited speaker at Montana Perinatal & Neonatal Conference. Billings Clinic & Montana Perinatal Association.
- McCracken, C.H., Glover, A.L., Fitch, S. (2021). MOMS: A Model for Incubating Innovations in Rural Healthcare. Presentation to the Billings Clinic Physician Grand Rounds.

Montana Perinatal Quality Collaborative

In year 2, MHA partnered with the MPQC to support the implementation of the AIM patient-safety bundles in Montana hospitals. The MPQC is a network of maternal and infant care providers and public health professionals working to improve health outcomes for birthing people and babies. AIM is a national data-driven maternal safety and quality improvement initiative with the goal to reduce preventable maternal morbidity and mortality in the United States. DPHHS contracted with Yarrow, a Montana public health consulting firm, to provide convening, facilitation, and quality improvement technical assistance coaching to MPQC hospitals. UM is the AIM contracted fiscal partner and is responsible for data collection and submission to AIM.

Throughout year 2, UM, DPHHS, Yarrow, and AIM worked together to develop the materials and timeline for the obstetric hemorrhage bundle. This bundle was selected based on the results of the UM SMM Study which found blood transfusion during obstetric hemorrhage emergencies as one of the most common types of SMM in Montana. Seventeen hospitals enrolled in the obstetric hemorrhage bundle and began prework at the end of year 2. Figure 8 shows the location of participating hospitals in the MPQC. The collaborative process will consist of three all-call learning sessions every three months followed by three action periods, where hospital teams will conduct Plan, Do, Study, Act (PDSA) cycles focused on improving some aspect of the safety bundle.

Figure 8. Map of MPQC Participating Facilities

Looking Ahead Year 3

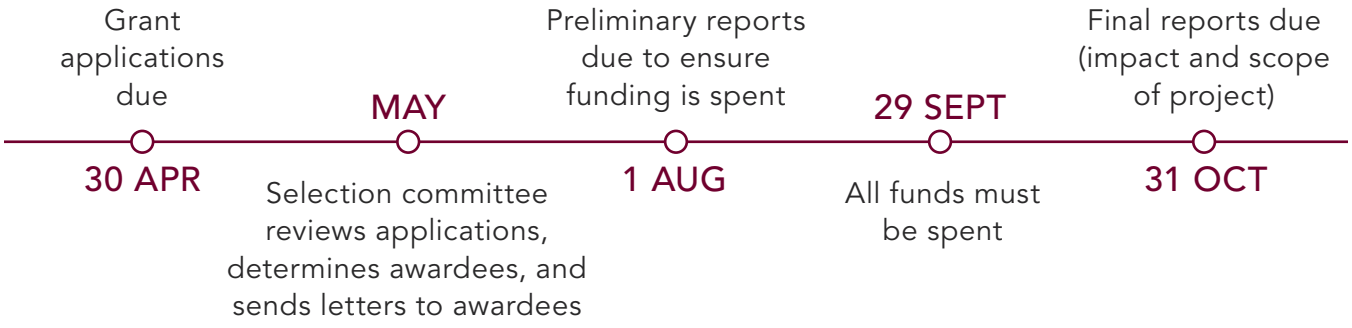
The participating hospitals attended the first learning session on October 5-6, 2021. Prior to the first learning session, each facility received a report summarizing their severe maternal morbidity data. The next learning session will occur on January 25-26, 2022. During the action period between learning sessions the hospitals will implement sections of the change package and attend region specific calls to report on progress. The obstetric hemorrhage bundle should be fully implemented at each facility by the end of July 2022.

Rapid Response Mini-Grants

University of Montana Rural Institute Mini-Grants

In year 2, the UM Rural Institute for Inclusive Communities solicited applications to distribute MOMS funds via mini-grants to local hospitals, clinics, health departments, and non-profits working to achieve MOMS objectives. Preference was given to Primary Care Health Professional Shortage Areas (HPSA), with funding to be spent on training, equipment, and other innovative responses to improve maternal health and well-being. Award amounts could be up to $20,000 per applicant. Figure 9 shows the mini-grant timeline in year 2.

Figure 9. MOMS Mini-Grant Timeline



Through supporting a variety of programming, the mini-grant activity was able to support not only expansion of existing training and services, but support innovation in programming and education through film, web, and social media campaigns highlighting important topics such as postpartum depression. This project has also allowed for necessary support services to meet the needs of expecting and new mothers by providing needed supplies to maintain mother and child safety. One grantee wrote:

> "We had the opportunity to do a postpartum home visit with a family who had a newborn and was only temporarily living in the area due to a job relocation. They had no family or friends nearby. The mother was struggling deeply with depression, anxiety, and intrusive/paranoid and even suicidal thoughts. Our well [wealth] of local resources pooled together several meals so the mother could sleep and rest, knowing her other children were eating well. Furthermore, a postpartum doula did a home visit and was able to talk through the necessity of the family prioritizing the needs of the mother in this fragile time. They put together a plan for keeping the mother healthy physically, which in turn helped her mental state immensely."

With the rapid nature of these mini-grants, there were barriers including the timeline for application and dissemination of funds. One grantee wrote,

> "Barriers included a tight timeline requiring more in-kind time than what was anticipated. HMHB's ED committed extra time to ensure there was buy-in from the folks in the film, data was accurate, and that the films were designed in a way that could catalyze other efforts by both HMHB and partners."

In total, $141,703 in funds were distributed to Anaconda, Billings, Dillion, Fort Belknap, Helena, Hardin, Kalispell, Lewistown, and Missoula communities. Funding was utilized for workforce development, resources, programing, and hospital equipment. Table 4 shows a list of activities and equipment supported through the University of Montana mini-grants.

Table 4. Activities and Equipment Supported by UM Mini-Grant Funds

Workforce Development	Resources	Programming	Hospital Equipment
• Becoming Us Mental Health Intervention Training • CBT Training • Certified Lactation Counselor (CLC) Training • Doula Training • MMH Certificate Training • Native American Peer Support Certification • Peer Support Training • Perinatal Mental Health Exam Certification • PSI Trainings • Recovery Doula Training • Wellbriety Training	• Books • Car seats • Documentary on Native American women • Gas vouchers for prenatal/ postpartum visits • Healthy cooking classes for new parents • Fatherhood and Motherhood is Sacred Training • Lactation Management Pocket Guide • Supplies and resources for training moms on baby needs • Office Supplies	• Family Connects training and consulting fees • The Network program startup and administration (certified postpartum doulas servicing mothers in crisis) • Rural services case management, consultant services	• Hospital Grade Breast Pump • Infant Scales

Billings Clinic Mini-Grants

In collaboration with the MOMS mini-grant program, Billings Clinic was able to identify training and equipment needed for communities and health agencies across the state. Billings Clinic provides the technical assistance for the MOMS grant and in participating in the review of the mini-grant requests, the Billings Clinic lead was able to identify and meet the needs of agencies, particularly in the most rural parts of Montana. This granting process has allowed Billings Clinic to not only support these identified needs but has allowed for additional partnerships to emerge. In total, $52,967 in funds were distributed through mini-grants to Lewistown, Ronan, Kalispell, Whitefish, and Helena communities.

In addition, Billings Clinic purchased Prompt Flex simulators with the Postpartum Hemorrhage Module which will be delivered to facilities in Shelby, Miles City, Sidney, Wolf Point, Livingston, and Glasgow. See Table 5 for a list of activities and equipment supported by Billings Clinic mini-grant funds. Funding was utilized for training, supplies, and simulators.

Table 5. Activities and Equipment Supported by Billings Clinic Mini-Grant Funds

Trainings	Supplies	Simulators
• 100 registrations to AWHONN's Maternal Fetal Triage Index training • 50 registrations to Neonatal Orientation and Education Program • 46 registrations to Perinatal Orientation and Education Program • 30 registrations for Obstetric Triage Orientation Education • 149 participants registered in Healthstream for NRP, STABLE, or both	• 1 Butterfly portable ultrasound machine • 1 omni tablet package for simulator • 1 bedside virtual monitor for simulator • 1 video camera • 1 tripod • 1 Childbirth Model set • 1 Cervical Dilation set • 1 Templates for Protocols and Procedures for Maternity Services	• 9 Prompt Flex simulators with PPH Module o 3 delivered to facilities so far • 1 newborn PEDI simulator • 1 preemie blue simulator • 1 Newborn Anne simulator

The University of Montana and Billings Clinic mini-grant programs distributed a combined $194,670 to 16 organizations in 9 counties. While UM awarded the majority of mini-grants, Billings Clinic awarded additional grants related to training and simulation, in line with their demonstration project work plan. Figure 10 illustrates the distribution of funds across the state and Table 6 provides a detailed list of the awardees by location and amount.

Figure 10. Mini-Grant Awardees

The University of Montana and Billings Clinic mini-grant program distributed a total of **$194,670** to organizations in **9 counties** working to achieve MOMS objectives.

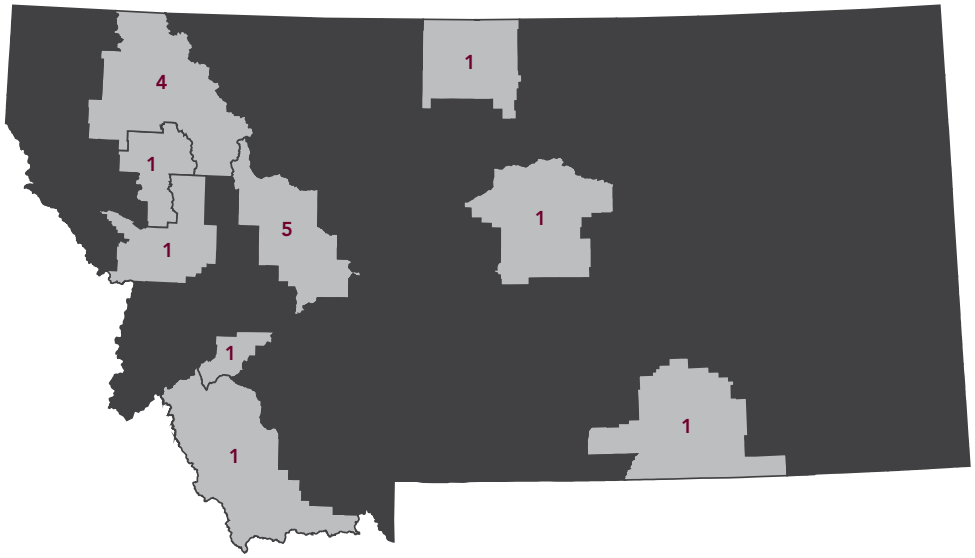


Table 6. Mini-Grant Program Awardees

Organization	City	County	Amount of Award	UM/BC
Bighorn Valley One Health	Hardin	Big Horn	$20,004	UM
Missoula City/County Public Health	Missoula	Missoula	$20,000	UM
Postpartum Support Group	Kalispell	Flathead	$20,000	UM
Rimrock Foundation	Billings	Yellowstone	$15,000	UM
Flathead City County Health Department	Kalispell	Flathead	$14,309	UM
Rocky Boy Clinic	Box Elder	Hill	$13,600	UM
Florence Crittenton	Helena	Lewis & Clark	$13,628	UM
Healthy Mothers Healthy Babies	Helena	Lewis & Clark	$10,000	UM
Central Montana Medical Center	Lewiston	Fergus	$5,042	UM
Hope Restored Counseling	Dillon	Beaverhead	$4,290	UM
Community Hospital of Anaconda	Anaconda	Deer Lodge	$3,000	UM
Lewis and Clark Public Health	Helena	Lewis & Clark	$2,830	UM
Logan Health Whitefish	Whitefish	Flathead	$13,860	BC
St. Peter's Hospital	Helena	Lewis & Clark	$12,494	BC
Logan Health Kalispell	Kalispell	Flathead	$9,349	BC
St. Luke's Community Hospital	Ronan	Lake	$8,906	BC
Central Montana Medical Center	Lewistown	Fergus	$8,358	BC

Activity 3.3

Provide nursing certification opportunities for Neonatal Resuscitation Program (NRP), Electronic Fetal Monitoring (EFM), Sugar, Temperature, Airway, Blood pressure, Lab work and Emotional support (STABLE) and Pediatric Advanced Life Support (PALS).

Nurse Certification

At the start of year 2, Billings Clinic signed a contract with HealthStream to purchase Neonatal Resuscitation Program (NRP) and Sugar, Temperature, Airway, Blood Pressure, Lab Work, and Emotional Support (STABLE) Program for rural nursing staff. The HealthStream site went live in December 2020. A total of 162 people received training in NRP and/or STABLE during year 2.

Indigenous Doula Training

The Full Spectrum Indigenous Doula Training is a doula certification course offered through One Health and Zaagi'idiwin trainer Michelle Brown. The Indigenous Doula Training is specific to the perspective and traditions of indigenous communities, and includes topics pertaining to grief and loss, pregnancy, traditional teaching tools, labor and birth, postpartum, and caring for the caregiver. This training was conducted online over a two-week period (four, eight-hour sessions) in mid-May 2021. The MOMS program sponsored six individuals to attend the training in year 2.

UM administered a 22-question Qualtrics survey to the six sponsored participants, and five of the participants completed the survey. The purpose of the survey was to understand the experience of attendees and gather information on the quality of the training and relevance of the content to their work.

Participants

The participants ranged in age from 23 to 70, came from a variety of professional backgrounds, and varied in experience from none to 9+ years. All participants highly rated the following: feeling engaged by the presenters and materials, learning new things in the training, change your thinking on how to talk with/connect with your indigenous clients, and quality of the workshop. The survey included a set of open-ended questions. Below are a few responses submitted by the Indigenous Doula Training participants.

- **Why did you take this training?**
    - "I have operated as a doula and wanted to increase my knowledge further in the indigenous ways of birthing."
    - "As a peer support specialist, there are special situations where a new mother or even experienced mother may need some extra attention. I sat in at a weekly Sacred Shawl Society and Baby Moccasin class at the IHS, where young mothers were invited to participate and learn about their new blessings. Two nurses, Brocade Stops and Heather Bear Cloud held very helpful ways to sooth and bring baby into the world in a good and healthy way."

- "Good question, at first I was resistant, but my supervisor wouldn't let me excuse myself. I'm glad I took the training. I learned things I didn't think of being as being a father/dad myself and taking part in my six children's birth. I have knowledge to encourage young fathers to participate, support their spouse from pregnancy, being present in their children's birth and after."

- **Specifically, what skills/knowledge from this workshop will you apply in your work?**
  - "I currently work with pregnant moms who need support during pregnancy and after."
  - "I'd definitely like to invest further guidance. However, helping new moms or mother's to be, is fulfilling. I was a single young mother when I had my daughter. I recall some of the struggles I experiences, especially when it came to postpartum depression."
  - "As a NA [Native American] male myself, encourage our NA fathers and dads. How to support their spouse during this time. How sacred of a journey it is for a life to be brought into this world. And sometimes the journey isn't always a successful journey but how to view this and support each other in times of grief and loss of a child."

To gather further information on the role of doulas in maternal healthcare and consider opportunities for doula programming in the demonstration project, Annie Glover, Stephanie Fitch, and Joe Salyer initiated a Recovery Doula Training program in mid-September, 2021.

Looking Ahead Year 3

Joe Salyer, Stephanie Fitch, and Annie Glover will continue the Recovery Doula Training program in year 3 and plan to become certified doulas for the purpose of supporting a demonstration pilot project that incorporates doulas into the model of care, specifically for vulnerable populations with the aim of reducing disparities. UM has also engaged Jessica Liddell, PhD, MSW, MPH, a member of the faculty at the UM School of Social Work, with research experience in AI/AN communities and with doula care, to lead a study that will roll out in year 3. The design and aims of this study are in development.

Activity 3.4

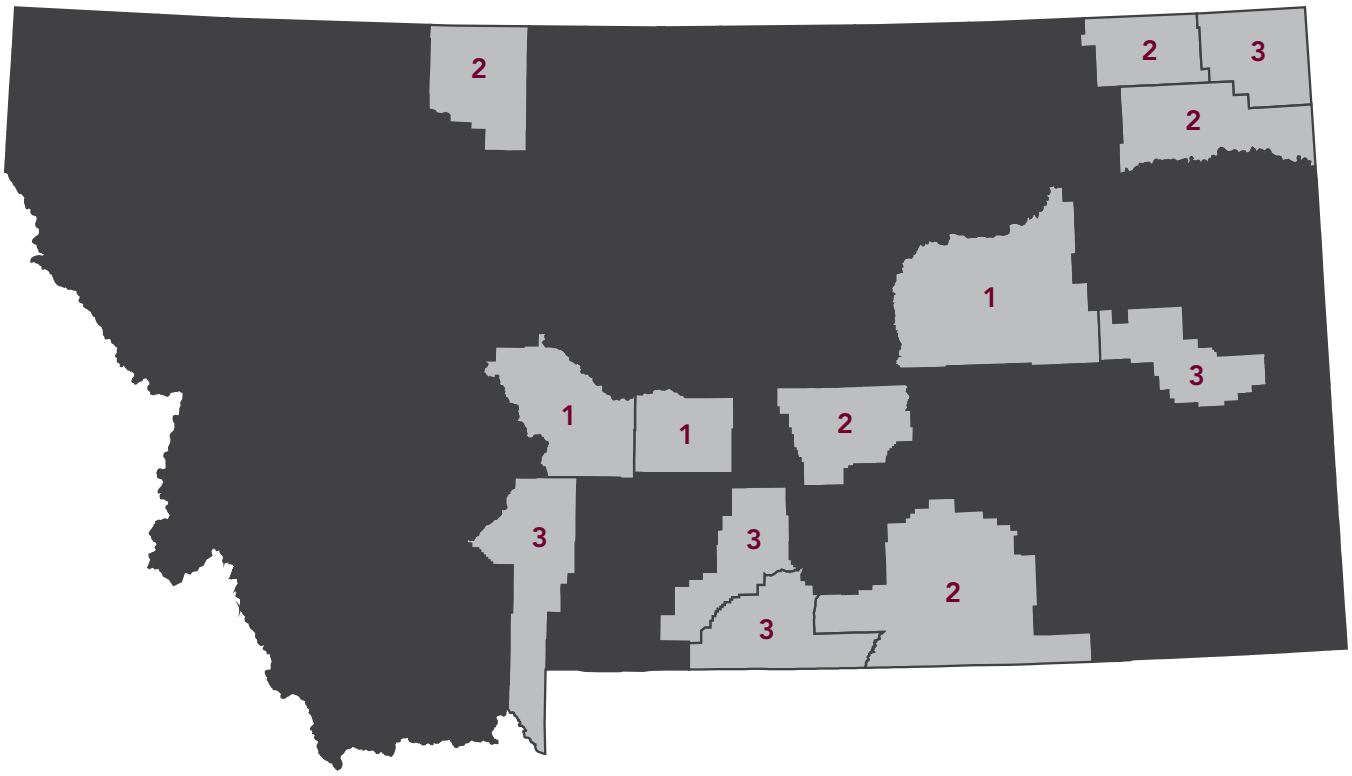
Provide Simulation in Motion-Montana (SIM-MT) mobile high-fidelity simulations for non-birthing, critical access hospitals.

Simulation in Motion Montana (SIM-MT) designs and runs life-like simulations for trauma care and dangerous patient events. Billings Clinic contracted with SIM-MT, who utilized Best Practice Medicine as the implementation partner until August 30, 2021, to provide obstetric simulation training for non-birthing, critical access hospitals in rural and frontier eastern Montana communities, where births are rare but can be emergent. Simulations included Normal Deliveries, Normal Deliveries with Sick Babies (requiring resuscitation), Postpartum Hemorrhage, and Preeclampsia (starting Y2Q3). Billings Clinic contracted with SIM-MT to begin obstetric care simulation trainings in rural hospitals starting in quarter 2 of the first year (January 2020).

Participants

At the conclusion of year 2, SIM-MT had completed 41 of the 72 contracted trainings. See Figure 11 for a map of where SIM events were held in Montana in year 2. The COVID-19 pandemic contributed to significant scheduling difficulties for the SIM-MT team throughout the course of the contract.

Figure 11. Year 2 SIM Training Locations

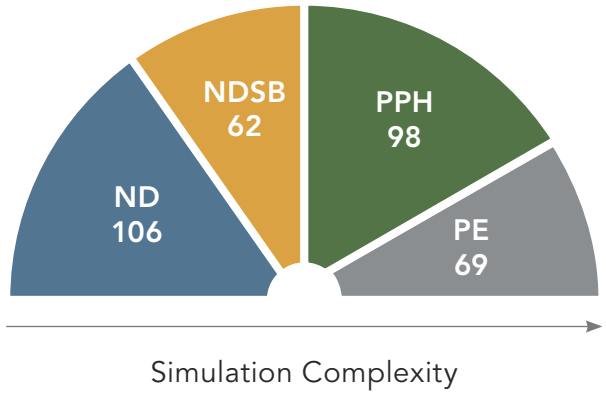


Most participants in year 2 attended the Normal Delivery and Postpartum Hemorrhage simulations. Figure 12 illustrates the number of participants by simulation.

Figure 12. Total SIM participants by Simulation Type

The majority of SIM Participants in Year 2 attended **Normal Delivery** and **Postpartum Hemorrhage** Simulations.

ND: Normal Delivery
NDSB: Normal Delivery Sick Baby
PPH: Postpartum Hemorrhage
PE: Preeclampsia



SIM Events in year 2 trained 335 healthcare providers in obstetric simulations. Table 7 shows participants by healthcare profession.

Table 7. Year 2 SIM-MT Participants by Healthcare Profession

SIM Participants by Profession (N=335)	
Profession	**Participants (N)**
Nurse	**173**
EMT/ Paramedic	**49**
Nurse Practitioner	**17**
Physician	**13**
CNA	**9**
Student Nurse	**6**
Physician Assistant	**5**
Allied Health Professional	**2**
LPN	**2**
Other	**36**
Not Reported	**23**
Total	**335**

Evaluation Assessment

In year 2 quarter 3, the MOMS team decided to terminate the collaboration with SIM-MT without completing all 72 contracted trainings due to dissatisfaction with SIM-MT's pacing. SIM-MT underwent reorganization, and SIM-MT and MOMS leadership extended the existing contract through year 3 quarter 1 (through the end of calendar year 2021) to complete the remaining 12 trainings.

Activity 3.5

Provide ACOG Emergencies in Clinical Obstetrics (ECO) training opportunities for all levels of providers in birthing hospitals covering breech vaginal delivery, shoulder dystocia, postpartum hemorrhage, umbilical cord prolapse and teamwork/communication.

Simulation Leadership Academy

In year 2, ACOG discontinued their ACOG ECO training opportunities. As a result, MOMS convened a team that included Dr. George Mulcaire-Jones, Dr. Tersh McCracken, Mary Robertston, Stephanie Fitch, Kimber McKay, and Annie Glover to develop the next simulation project for the MOMS program. Their efforts created the MOMS Simulation Leadership Academy, a cohort-model educational program designed to provide physicians, midlevel providers, and nurses at rural health centers the opportunity to learn the science of obstetric simulation, practice design and implementation of various types of simulation, and learn to train specific management skills and maneuvers for a variety of obstetric complications. Each participating facility will receive a Prompt Flex Birthing Simulator, which includes a postpartum hemorrhage attachment, that will be used throughout the course. There is no charge for the participating facilities.

Looking Ahead Year 3

The MOMS Simulation Leadership Academy will begin its programming in February 2022.

Activity 4.1

Facilitate co-management of high-risk patients with urban-based specialists and rural based generalists

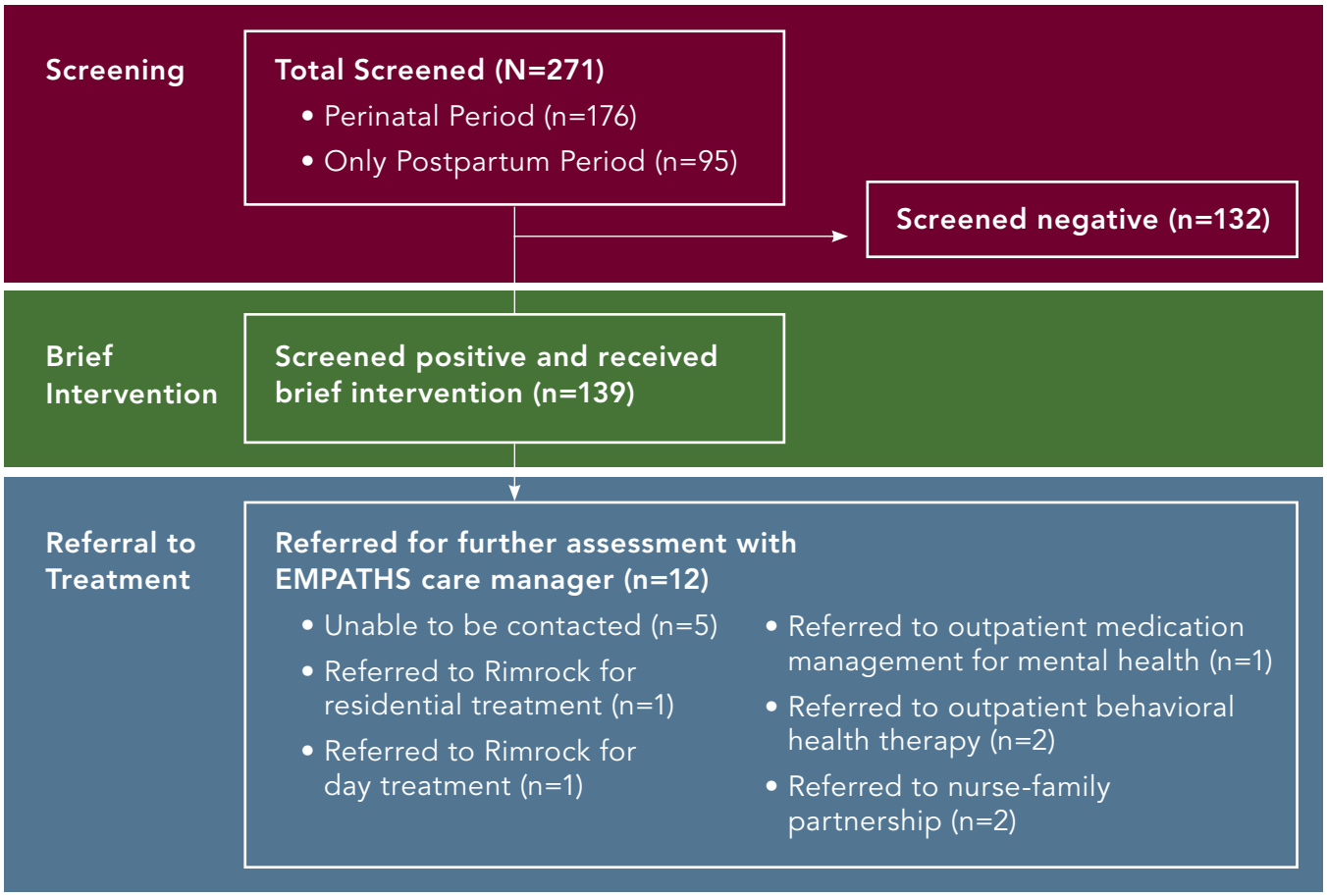
Eastern Montana Perinatal Addiction Treatment Health System Program (EMPATHS)

In year 2, Billings Clinic partnered with the Rimrock Foundation and implemented EMPATHS, a pilot project aimed to inform best practices in substance use disorder treatment for women who are pregnant and living in rural areas. EMPATHS consists of a system-level treatment model which includes universal screening for substance use in pregnancy and a system to refer patients to telehealth substance use disorder treatment.

In year 2, a total of 271 patients completed the 5P's (Prenatal Substance Abuse Screen for Drugs and Alcohol) screener at least once during their pregnancy or up to 14 weeks postpartum. Of the patients that completed the 5P's, 139 screened positively (responded 'yes' to at least one question) and received brief intervention from their obstetric provider or the EMPATHS care manager. Seven patients met with the EMPATHS care manager for further assessment and referral.

Figure 13 shows a breakdown of the SBIRT screening, intervention, and referral to treatment process.

Figure 13. EMPATHS Referral to Treatment Process for Year 2



In addition to the SBIRT pathway, a total of 30 patients were referred to the EMPATHS care manager without screening with concerns related to mental health or substance use. These referrals occurred either before the implementation of the universal screening or through other departments within Billings Clinic. Based on assessment, patients were referred to Rimrock for Substance Use Disorder (SUD) services (n = 2), outpatient medication management (n =2), outpatient behavioral health therapy (n = 25), obstetric care (n = 1), nurse-family partnership (n = 2), child abuse neglect and abuse prevention services (n = 1), and other services (n = 1).

The EMPATHS pilot project will continue into year 3 and include analysis.

Cuddling Cubs Study: Maternal-Infant Attachment through a Virtual Playgroup

The Cuddling Cubs study is a partnership between Rocky Mountain College Occupational Therapy Doctorate Program (RMC-OTD) and the MOMS program. The overall objective is to examine the effectiveness of a virtual occupational therapy facilitated playgroup on mother-infant attachment. The long-term goal is to create a virtual occupational therapist-led playgroup that improves mother-infant attachment over an eight-week period by facilitating engagement in co-occupations. The playgroup intervention, which consists of four online platform modules, will aim to facilitate these co-occupation opportunities between the mother and infant.

A pilot study of Cuddling Cubs was conducted in year 2. Six moms enrolled in the pilot study and four finished the program. Participants completed a pre-and post-Maternal Postnatal Attachment Scale (MPAS) assessment and interview, a pre-survey addressing demographic information, and a post-survey focusing on satisfaction with the playgroup. A follow-up phone call was made two months after the completion of the study to explore the retention of strategies, tools, and interactions facilitated during the playgroup.

Looking Ahead Year 3

The research team from Rocky Mountain College will analyze the results from the pilot study and will prepare a manuscript for submission to an academic journal. The team will start outreach to regional hospitals and clinics for referrals.

Activity 4.2

Establish access to visiting specialists, via live or telemedicine programs in rural communities

The visiting specialist program in the demonstration project is scheduled to be initiated in years 3-5 of the project period.

Activity 5.1

Enable telehealth to integrate behavioral health services into prenatal and postpartum care using: mental health screening and treatment; SUD screening and treatment; and medication-assisted treatment (MAT).

See section 4.1 for the description of the EMPATHS program.

Activity 5.2

Support multidisciplinary networks of providers to expand service accessibility in rural communities by implementing telehealth and outreach clinics for medical and behavioral health services.

Telehealth implementation in OB/GYN practices in the Rocky Mountain West in response to COVID-19

Year 2 Update

In year 1, in anticipation of future expansion of telemedicine through the MOMS grant, UM conducted a research project aimed at learning from the emergency deployment of telemedicine in the rural Rocky Mountain West during the COVID-19 pandemic. Data for this qualitative study was gathered through 20 semi-structured interviews with practicing OB/GYNs over Zoom between July and September 2020. In year 2, the recorded interviews were transcribed and coded by themes, including enabling health policy for telemedicine, population characteristics, special needs, and provider/patient satisfaction.

Initial Results

Findings indicate that providers view telehealth as a useful tool during prenatal and postpartum care; many providers intend to continue telehealth practices they adopted during the pandemic. Providers noted that patients reported additional benefits to telehealth, above and beyond COVID-19 safety, such as limiting drive time to appointments, reduced time off work, and alleviating childcare needs. Providers also noted that expanding telehealth will not equally benefit all patients. Considerations need to be in place for rural and low-income communities to ensure all have equitable access to the technology to support telehealth. COVID-19 and telehealth modalities have also limited patient rapport and partner engagement, which is normally very important during pregnancy.

Year 3 Looking Ahead

The research team will submit a manuscript to an academic journal in the spring of 2022.

MOMS Program – Stories of Impact

Big Horn County Hospital

Big Horn Hospital is a critical access hospital in Hardin, Montana. Big Horn Hospital does not have an obstetrics unit. If a patient presents to the emergency room in labor every attempt is made to transfer the patient to the appropriate facility to deliver the baby. In some instances, the situation does not allow for transfer and emergency obstetric services are provided at Big Horn Hospital. In the summer of 2021, Big Horn Hospital participated in the NRP training through MOMS. This training proved to be very valuable in August 2021, when a depressed newborn was delivered at Big Horn Hospital. The NRP training prepared hospital staff to provide the necessary resuscitation during the emergency delivery.

Central Montana Medical Center

Central Montana Medical Center (CMMC) is a birthing facility in Lewistown, Montana. CMMC has about 80-100 births a year. CMMC has participated in a variety of MOMS programs including ECHO and ACOG ECO training. Shortly after participation in ACOG ECO, CMMC had a patient that had a postpartum hemorrhage. The physician shared that the team of nurses was very well prepared, knowledgeable, and ready to address the situation. The physician said he observed an improvement in staff knowledge, and the team was quick to get the necessary equipment and medication to treat the patient.

Conclusion

Despite ongoing challenges related to the COVID-19 pandemic in Montana, the MOMS grant made significant progress towards achieving its overarching goal "to strengthen Montana's capacity to address disparities in maternal health and improve maternal health outcomes, including the prevention of maternal mortality and severe maternal morbidity."

The evidence for this progress is exemplified by several key achievements:

- The establishment of Montana's first statewide MMRC and award of the CDC ERASE-MM grant to support the work of this committee;
- The enrollment of patients in the EMPATHS program and pilot study who are receiving the behavioral healthcare services that they need while also contributing lessons for systems improvement in perinatal behavioral healthcare;
- The onboarding of Montana to ACOG's national AIM initiative and adoption of the obstetric hemorrhage safety bundle by the MPQC;
- The award of nearly $200,000 in local grants to healthcare and community organizations around the state focused on improving services for Montana mothers and families;
- The synthesis and dissemination of actionable maternal health data to clinical, policy-maker, and local community stakeholders;
- The connections built between hundreds of healthcare providers, nurses, and medical staff through the MOMS Project ECHO; and,
- The skills developed through simulation training in hospitals that improve the capacity of Montana's healthcare workforce to successfully manage obstetric emergencies.

Looking forward to year 3, the MOMS program has much to build upon—including these and the other achievements outlined in this report. During the second year of MOMS, significant data was collected about the status and needs of the maternal health system in Montana—these data must be leveraged in all planning and resource allocation efforts in the last three years of this grant. For instance, the needs assessment that has been conducted should inform future mini-grant programs, simulation curriculum development, outreach efforts, and research priorities. Cross-pollination between efforts such as the MMRC, MPQC, and training activities should be deliberate and thoughtful, with the various arms of this grant working toward common goals. MOMS should continue its efforts to engage authentically with local communities and increase engagement from key populations served by this grant, including both AI/AN and rural communities. Finally, sustainability planning should begin to be a significant part of program planning efforts, with policy-makers and other leaders engaged in taking ownership of the significant system improvements that MOMS has facilitated.

Appendix A

Table 8: Maternal Health Leadership Council Members

Name	Organization	Discipline/Role	Location
Vicki Birkeland, MSN, RN, NEA-BC	St. Vincent's Healthcare	Nursing Director	Billings
Ann Buss	MT DPHHS	Title V Maternal & Child Health Block Grant Programs	State
Dr. Bardett Fausett	Origin Health	Maternal Fetal Medicine Specialist	Missoula
Judge Mary Jane Knisely	13th District Court	Judge	Yellowstone County
Dina Kuchynka, RN, BSN	SCL Health - Holy Rosary	Maternal & Newborn Health Manager	Miles City
Mary LeMieux	MT DPHHS Medicaid	Payer	State
Brie MacLaurin, RN	Healthy Mothers Healthy Babies	Executive Director	Helena
Dr. Christina Marchion	Central Montana Medical Center	Family Medicine - Obstetrics	Lewistown
Dr. Clayton "Tersh" McCracken	Billings Clinic	Obstetrics/ Gynecology	Billings
Dr. Jean-Pierre Pujol	Blue Cross Blue Shield of Montana	Medical Director	State
Janie Quilici, LAC, LSWC	Western Montana Mental Health Center/ Community Medical Center	Perinatal Behavioral Health	Missoula
Olivia Riutta	Montana Primary Care Association	Outreach and Engagement Manager	Helena
Tami Schoen, RN, BAN	Hill County Public Health Department	WIC Aide, CPA	Hill County
Cindy Stergar	Montana Primary Care Association	CEO	Helena
Lisa Troyer	PacificSource	Wellness Consultant	State
Jennifer Verhasselt, MS, LAC	Rimrock	Senior Director of Residential and Peer Support Services	Billings
Jennifer Wagner, CPHQ	Montana Hospital Association	Rural Hospital Improvement Coordinator	Helena
Tressie White	Montana Healthcare Foundation	Program Director	Bozeman
Dr. Steve Williamson	Indian Health Services	Medical Director	Billings

Appendix B

Table 9: Maternal Mortality Review Committee Members

Name	Organization	Discipline/Role	Location
Kristi Akelstad	MT DPHHS	Title X Family Planning Program	State
Rachel Arthur	Indian Family Health Center	Care Coordinator	Great Falls
Mary Lynne Billy Old Coyote	Indian Family Health Center	Chief Operations Officer	Great Falls
Katie Boggs, RN	Blackfeet Community Hospital	Community Health Nurse	Browning
Kayla Bragg	Department of Justice Division of Criminal Investigation Special Services Bureau - Sexual Assault Kit Initiative (SAKI)	Law Enforcement	State
Ann Buss	MT DPHHS	Title V Maternal & Child Health Block Grant Programs	State
April Charlo	Snqweylmistn (Indigenous Doula Course) and Families First Learning Lab in Missoula	Vice President	St. Ignatius
Melinda Cline, LCSW, PMH-C, CLC	Private Practice	Social Work/ Behavioral Health	Missoula
Drew Colling	Montana Coalition Against Domestic and Sexual Violence	Violence Prevention Agency	State
Dr. Annie Glover	Rural Institute, University of Montana	Academic Institution	State
Dr. Adriane Haragan	Bozeman Health	Maternal-Fetal Medicine / Perinatology	Bozeman
Frances Hayes, RN	Roosevelt County Public Health Department	Public Health Nurse	Wolf Point
Mary LeMieux	MT DPHHS Medicaid	Payer	State
Dr. Christina Marchion	Central Montana Medical Center	Family Medicine - Obstetrics	Lewistown
Dr. Clayton "Tersh" McCracken	Billings Clinic	Obstetrics/ Gynecology	Billings
Pam Ponich, LCPC	One Health	Community Birth Workers	Miles City, Hardin, Lewistown

Table 9: Maternal Mortality Review Committee Members (Continued)

Name	Organization	Discipline/Role	Location
Janie Quilici, LAC, LSWC	Western Montana Mental Health Center/ Community Medical Center	Perinatal Behavioral Health	Missoula
Kassie Runsabove	Montana Healthcare Foundation	Program Officer	statewide
Kate Seaton, JD	Montana Legal Services Association	Legal Support Services	State
Julian Shields	Ft. Peck Tribal Health Department	Director	Poplar
Jennifer Show, FNP	Ft. Belknap Tribal Health Department	Chief Medical Officer	Wolf Point
Kristen Srna, MSN, RN	Benefis Hospital and Association of Women's Health, Obstetrics and Neonatal Nurses (AWHONN)	Perinatal Nursing	Great Falls
Lee Stiffarm, RN	Blackfeet Community Hospital	Public Health Nurse	Browning
Jana Sund, CNM	Postpartum Resource Group	Midwives and Community-Based Doula Program	Kalispell
Helen Tesfai	Rocky Mountain Tribal Epidemiology Center	Director	Regional
Vickie Thuesen, APRN, WHNP, FNP	Ag Worker Health & Services	Migrant health care	Lolo
Kari Tutwiler	MT DPHHS	Fetal, Infant, Child & Maternal Mortality Review & Prevention	State
Jennifer Verhasselt, MS, LAC	Rimrock Addiction Treatment Center	Addiction Counseling	Billings
Mariya Waldenberg, DNP	VezaHealth	Nursing Consultant	Lame Deer
Sarah Watson, DO	Partnership Health Center	Federally Qualified Health Center	Missoula
Dr. Aaron Wernham	Montana Healthcare Foundation	Non-profit	statewide
Dr. Steve Williamson	Billings Area Office of Indian Health Services	Chief Medical Officer	Regional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