

MONTANA OBSTETRICS and MATERNAL SUPPORT PROGRAM



Year 1 Report

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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 (MT 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.

This report provides an evaluation summary of the first project year of the MOMS Grant (October 1, 2019-September 30, 2020) and recommendations for performance improvements as the grant proceeds into its second year.

Partners

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 MT 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.

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 and the Montana Maternal Mortality Review Committee (MMRC). DPHHS also participates in the Montana Perinatal Quality Collaborative and is working toward guiding Montana to become an Alliance for Innovation on Maternal Health (AIM) state.

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. In year two, pilot projects aimed at expanding access to obstetric care and mental and behavioral healthcare through telemedicine wraparound services will be implemented.

University of Montana

UM engages in the MOMS program through two centers: the Rural Institute for Inclusive Communities and the Center for Children, Families and Workforce Development. UM provides research and data analysis support, ongoing formative and summative evaluation of the full project, and technical assistance and guidance.

Impact of COVID-19

On March 11, 2020, the World Health Organization declared that COVID-19 be characterized as a global pandemic. On March 12, 2020, Montana Governor Steve Bullock declared a State of Emergency in Montana related to COVID-19, and a statewide shelter-in-place order was instituted March 26-April 27, 2020. Phased reopening activities have occurred throughout the summer. When the pandemic was declared, MOMS was in the second quarter of its first grant year. Activities that were planned to occur at healthcare facilities, grant-related travel, in-person data collection, and engagement from health 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 for 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.

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 the Maternal Health Leadership Council and Maternal Mortality Review.
- 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

Maternal Health Leadership Council

The Maternal Health Leadership Council guides and advises the implementation of the MOMS program. It was established in June 2020 and meets monthly. Four meetings were held via Zoom in Y1 (6/23/20, 7/28/20, 8/25/20, 9/22/20).

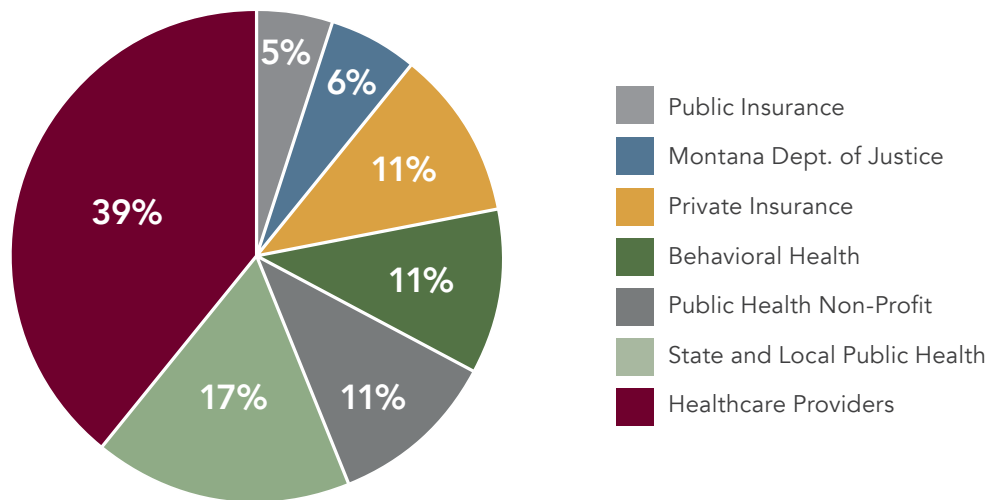
Membership

The council includes 18 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. Table 1 (on the following page) shows council membership, and Figure 1 (on page 7) shows council membership by organization type.

Table 1: Maternal Health Leadership Council Membership

Maternal Health Leadership Council (N=18)	
Healthcare Organizations (7)	
Role	Organization
MOMS Medical Director, OBGYN	Billings Clinic
PLLC and Chair of ACOG, OBGYN	Women's Health Care Center
Certified Nurse Midwife	Northeast Montana Health Services
Medical Director, MFM	Origin Health
Chair of Montana Perinatal Quality Collaborative, Director of Nursing	SCL Health
Family Medicine/OB	Central Montana Medical Center
Maternal & Newborn Health Manager	SCL Health - Holy Rosary
Behavioral Health (2)	
Role	Organization
Perinatal Behavioral Health Counselor	Community Physicians Group
Director of Mental Health Services	Rimrock
Local and State Public Health (3)	
Role	Organization
WIC, CPA	Hill County Public Health Department
Title V Director/Maternal & Child Health Supervisor	MT DPHHS
American Indian Health Director	MT DPHHS
Public and Private Insurance (3)	
Role	Organization
Medical Director	Blue Cross Blue Shield of MT
Wellness Consultant	Pacific Source
Member Health Management Bureau at Medicaid, Perinatal Behavioral Health/Meadowlark Initiative Director	MT DPHHS
MT Department of Justice (1)	
Role	Organization
13th District Court Judge, Felony Impaired Driving Court, CAMO Court	Montana Judicial Branch
Public Health Non-Profit (2)	
Role	Organization
Executive Director	Healthy Mothers and Healthy Babies
CEO	Montana Primary Care Association

Figure 1: Maternal Health Leadership Council by Organization Type



Y1 Council Activities

- Introduced MOMS program and partners.
- Established council membership, charter, mission, goals, and terms of reference.
- Elected vice-chair.
- Reviewed findings from the needs assessment conducted by Billings Clinic.
- Provided an overview on AIM: Maternal Mortality Support to States.
- Discussed supporting and collaborating with the Montana PQC.
- Initiated strategic planning by conducting a SWOT analysis and a TOWS analysis of prenatal, labor and delivery, and postpartum care in Montana.
- Discussed Maternal Mortality Review Information Application (MMRIA) and MMRC implementation in Montana.
- Began driver diagram activity with support from the Maternal Health Learning and Innovation Center (MHLIC) to identify key drivers that connect the activities and strategies to the program goals.

Maternal Mortality Review Committee

MOMS program staff at DPHHS is exploring various options for Montana's Maternal Mortality Review Committee (MMRC). Staff is developing a decision-making brief that examines the risks and benefits of the option to join a regional MMRC with Utah and Wyoming and the option to create a Montana specific MMRC. DPHHS staff, including the Title V Director, along with the MOMS medical director and ACOG chair are in discussions with staff at the Utah Department of Health and the Wyoming Department of Health to learn more about each option. A cost analysis will be conducted, investigating appropriate procurement routes for an abstractor for MMRIA and the MMRC, and solicitation for members. Staff is also using the www.reviewtoaction.org website for guidance. When the decision brief is complete, it will be shared with the MOMS Leadership Council for their input as well.

Activity 1.2

Needs Assessment

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.

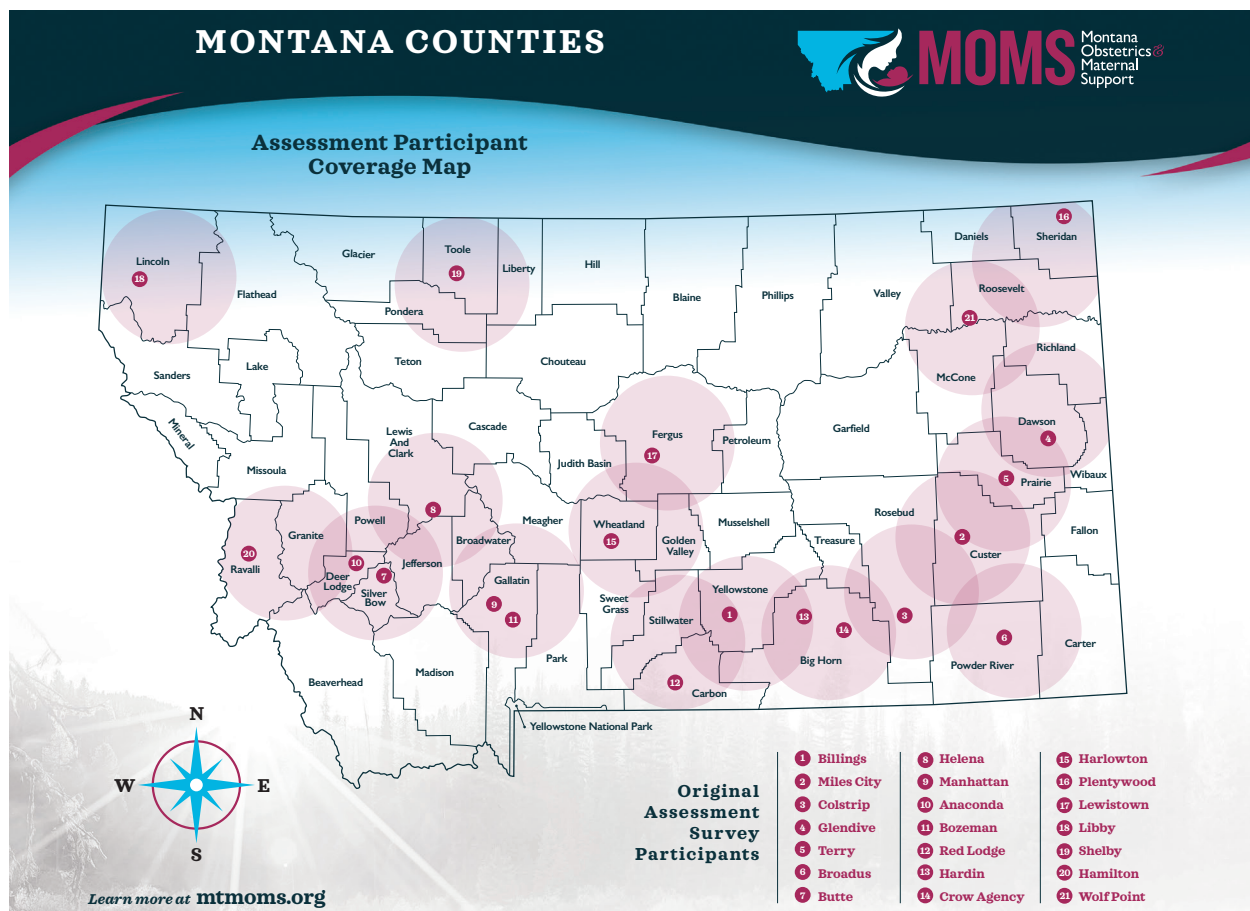
Recruitment

The needs assessment recruitment began in February 2020 and continued through mid-March. AD Creative designed a postcard, which was mailed to 3,344 providers, including nurses and physicians in Eastern Montana. The Billings Clinic program staff sent two emails to the MOMS program email group: February 27, 2020, and March 18, 2020. The email was also distributed to members of the Montana Medical Association (MMA), Mountain-Pacific Quality Health (MPQH), the Montana Primary Care Association (MPCA), and MHA. At the time of the first email, the group had 50 members. It has since grown to 215 members. The MOMS program website had a banner and pop-up, prompting visitors to complete the survey.

Results

Forty individuals completed the needs assessment survey, including nurses (54%), NP/FNP (10%), OBGYN or FPOB: (10%), CNM (5%), M.D. without birth services (5%), other (15%). Respondents were from across Montana (Figure 2).

Figure 2: Needs Assessment Respondents



The main themes that emerged from the needs assessment that are substantial challenges to delivering quality obstetric care in Montana, chiefly:

- Distance to care and transportation
- Lack of substance use treatment
- Lack of providers and consultation for mental health issues

Findings from the needs assessment will be complemented by key informant interviews and will guide the work in Y2. The needs assessment guides the MOMS team by identifying gaps in the ability to provide critical services to pregnant women in Montana, as well as training needs experienced by providers.

Dissemination

The Billings Clinic program staff presented the findings to the Maternal Health Leadership Council and shared electronically with all council members. The results were provided to the MHLIC, which has reviewed and dispersed across MHI grantees.

Key Informant Interviews

Key informant interviews are underway. All members of the Maternal Health Leadership Council are being interviewed. Leadership Council members will identify additional contacts to include. The interviews are ongoing through November 2020. The community listening sessions are postponed due to COVID-19.

Strategic Plan

The results of the needs assessment were presented to the Maternal Health Leadership Council at the July meeting. At the August meeting, the Leadership Council began the strategic planning process with an interactive SWOT exercise of each of the top four barriers to care identified by the needs assessment. The September meeting included a continued SWOT of the “access to care” barrier, a TOWS analysis of that barrier and the start of a driver diagram activity. DPHHS submitted the Draft Strategic Plan for MOMS to HRSA on September 29, 2020.

Activity 1.3

MOMS Program Marketing

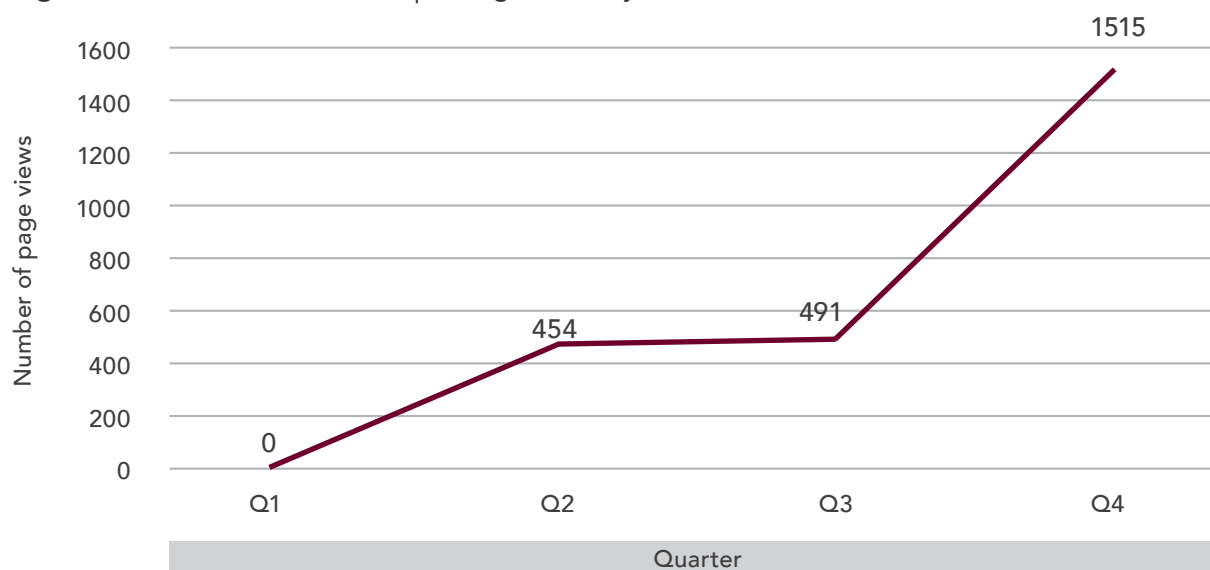
Billings Clinic has contracted with AD Creative for marketing and communications associated with MOMS. Table 2 summarizes marketing activities by quarter, and Figure 3 shows total website views by quarter.

Table 2: Marketing Activities by Quarter

Quarter 1
<ul style="list-style-type: none">• Developed MOMS brand• Created a provider database for outreach• Developed a marketing strategy for providers and patients
Quarter 2
<ul style="list-style-type: none">• Created MOMS website (provider focused)• Designed training, event and convention collateral• Created direct mail postcards• Designed MOMS apparel & swag
Quarter 3
<ul style="list-style-type: none">• Designed the Montana Maternal Health Programs and Resources Guide• Designed the ECHO Participant Guide• Produced a print ad published in The Pulse
Quarter 4
<ul style="list-style-type: none">• Created MOMS Assessment Participant Map• Designed MOMS Bags, Notecards & Envelopes, and Survey Postcard• Created MOMS Leadership Council Web Addition• Produced Demonstration Project Flyer

The MOMS website launched on February 10, 2020. Figure 3 shows MOMS website unique page views by quarter.

Figure 3: MOMS Website Unique Page View by Quarter



Community Education

The public education campaign is scheduled to be initiated in Y2.

Evaluation Assessment

Highlighted Strengths

MOMS has utilized the resources and technical assistance provided through HRSA and the MHLIC, a technical assistance partnership funded by HRSA for MHI states at the University of North Carolina at Chapel Hill to build a strong Maternal Health Leadership Council. The membership of the Leadership Council represents a broad array of relevant stakeholders, including representation from the provider, payor, hospital system, and advocacy communities. The Leadership Council appears to be engaged in this project and committed to the planning process and quality improvement.

Data collection for the needs assessment coincided with a high-stress period for the healthcare system. Despite the challenges of COVID-19 and cancellation of planned in-person town hall meetings, Billings Clinic was able to regroup and gather important data through interviews and surveys to inform the strategic planning process.

Recommendations for Improvement

The public education campaign has not been planned. Program implementers report that initial discussions and planning are underway for this campaign to be planned and launched in Y2. The evaluation team recommends that a new work plan specific to this campaign, including messaging and programmatic objectives and timelines, be developed as soon as possible to ensure that the public education campaign can launch in Y2.

A member of the Leadership Council noted that MHA should be represented on the Leadership Council. The evaluation team recommends that this entity be invited to join the Leadership Council given its role as a convener of all hospital systems in Montana, ongoing quality improvement initiatives, and access to data relevant to Montana becoming an AIM state.

Year 2 Preview

The needs assessment conducted by Billings Clinic will continue into Y2 to provide ongoing information to the Leadership Council and the grant team to ensure that strategies and activities remain relevant and productive for the overarching goals of improving maternal health in Montana.

To enhance the needs assessment, in Y2, the research team at UM will begin recruitment to a study focusing on assessing critical access hospitals and other facilities in the program region, and their readiness to provide care for women experiencing complex pregnancies and/or deliveries. Using the World Health Organization's emergency obstetric (EmOC) signal function framework, this research will develop a signal function model that will be tailored to the challenges particular to rural and frontier populations in Montana, and the healthcare facilities that serve them. Signal functions form a list of key interventions and activities that address major causes of morbidity or mortality and are indicative of a certain type and level of care. The signal functions model we will develop will be guided in part by the findings from the severe maternal morbidity review to be conducted in year two of the grant period. This research will generate a facility assessment into basic and comprehensive levels of emergency obstetric care.

Objective B: Measure Maternal Health in Montana

Strategy 2: Collect and analyze maternal health data

Activity 2.1: Collect and centralize maternal mortality review

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

The MOMS Program aims to improve state-level maternal health data and surveillance. This data collection will include coordination with the Montana MMRC and local Fetal, Infant, Child and Mortality Review (FICMMR) teams to collect and abstract maternal mortality data. It will also track maternal health outcomes using Behavioral Risk Factor Surveillance System (BRFSS), Pregnancy Risk Assessment Monitoring System (PRAMS), Montana Vital Statistics, Montana Hospital Discharge Data, and other relevant program data, to ascertain the leading causes of maternal deaths, disparities in outcomes, and disparities in care provision. MOMS will publish an annual report on maternal health that includes recommendations to prevent maternal deaths. The following section outlines activities in the first project year towards achieving Objective B.

Activity 2.1

Maternal Mortality Review Information Application

The Center for Disease Control (CDC) Established the Montana MMRIA site to add, edit, and review cases. DPHHS is working with the CDC to schedule training for DPHHS staff and local county maternal mortality review teams. Once the training is completed, the site will be launched for 2020 cases. DPHHS built a database to house, analyze, and pull reports from 2013-2018 maternal mortality data.

Activity 2.2

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

Behavioral Risk Factor Surveillance System

DPHHS and UM entered into a data use agreement (DUA) in December, 2019 during Q1 of the grant to enable 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 IRB approval was granted for research using this data in September 2020. 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 into a DUA in August, 2020 to enable the use of hospital discharge data for a study on severe maternal morbidity. 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 PRAMS survey has been conducted in Montana since 2017. The PRAMS program is housed in the Fiscal and Operations Bureau in the ECSFD. While this survey is the primary source of data on maternal experiences and behaviors in the prenatal and postpartum periods, as well as experiences in labor and delivery, in the U.S. At the end of year one, discussions were still underway for PRAMS data analysis for the MOMS program. The MOMS program received the 2017 PRAMS data set in early November. 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.

Activity 2.3

Maternal Health Report

The first annual Maternal Health Report was prepared by UM and submitted to HRSA on September 29, 2020. A final report will be published and presented to the October, 2020 meeting of the Maternal Health Leadership Council.

Evaluation Assessment

Highlighted Strengths

The partnership between MOMS data team at UM and the DPHHS Office of Epidemiology and Scientific Support as well as with MHA have been significant wins for the MOMS project that will inform the data-driven decisions of the Leadership Council as well as clinicians and leaders around the state.

Recommendations for Improvement

The MT-MMRC had not convened by the closure of Y1. DPHHS has been in communication with CDC about creating and initiating maternal mortality review processes, and the evaluation team recommends that this committee begin meeting as soon as possible in Y2.

While the UM Research Team has gained access to BRFSS, birth records, and hospital discharge data, efforts to acquire PRAMS datasets were still underway at the end of year one. Given the central importance of PRAMS data in a statewide maternal health initiative, the evaluation team will continue to work with DPHHS to arrange an interagency data use agreement with the MOMS grant team at UM to support continued data-sharing efforts.

Year 2 Preview

Detailed analysis of these data will be made available in Y2 to stakeholders, and research projects are underway to help Montana clinicians better understand health disparities related to rurality and race, as well as to identify targets for clinical intervention and policy change.

Around half of all births in Montana are financed by Medicaid. As the single-largest payor category for births, Medicaid is an important partner in identifying system interventions that can improve the quality of obstetric care and maternal health outcomes. A goal for Y2-5 for MOMS will be to further develop the partnership with Medicaid to facilitate data-sharing of claims and clinical data for targeted research and analysis to inform specific MOMS pilot interventions as well as enable data-driven recommendations from the Maternal Health Leadership Council.

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

Strategy 3: Provide technical assistance and education 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.

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 visiting specialist, via live or telemedicine program in rural communities.

Activity 4.3: Support rural providers through maternal health call-in support line, specializing in perinatal behavioral health and SUD/OD treatment (including MAT).

Strategy 5: Pilot telemedicine-facilitated approaches to perinatal care.

Activity 5.1: Enable telehealth healthcare providers to provide or receive real-time remote patient co-management and care coordination support to aid in treatment of pregnant and parenting women.

Activity 5.2: Support multidisciplinary networks of providers to expand service accessibility in rural communities.

Activity 3.1

Project ECHO

Project ECHO was developed at the University of New Mexico Health Sciences Center to help improve access to care for complex chronic health conditions. 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 Q3.

Recruitment

Billings Clinic staff use a variety of outreach strategies to recruit participants for Project ECHO Clinics. See the detailed list below.

- **Web:** MOMS program website and Billings Clinic Project ECHO page.
- **Email:** AD Creative emailed all registered physicians, nurses, and mid-level providers in Montana (July 2020).
- **The Pulse:** Ads were published in The Pulse in February and May 2020. The Pulse is the official publication of the Montana Nurses Association Foundation, mailed to over 19,000 nurses.
- **Promotional Materials:** ECHO is highlighted in promotional materials shared with MHA, MPCA, Montana Medical Association (MMA), Blue Cross Blue Shield of Montana (BCBS), and Montana Nurses Association (MNA).
- **Individual Outreach:** Billings Clinic program staff contact providers to recruit didactic speakers, case presenters, and attendees.
- **Resource:** Billings Clinic program staff created an ECHO Participant Guide to highlight ECHO and improve learner familiarity with the program.

Participants

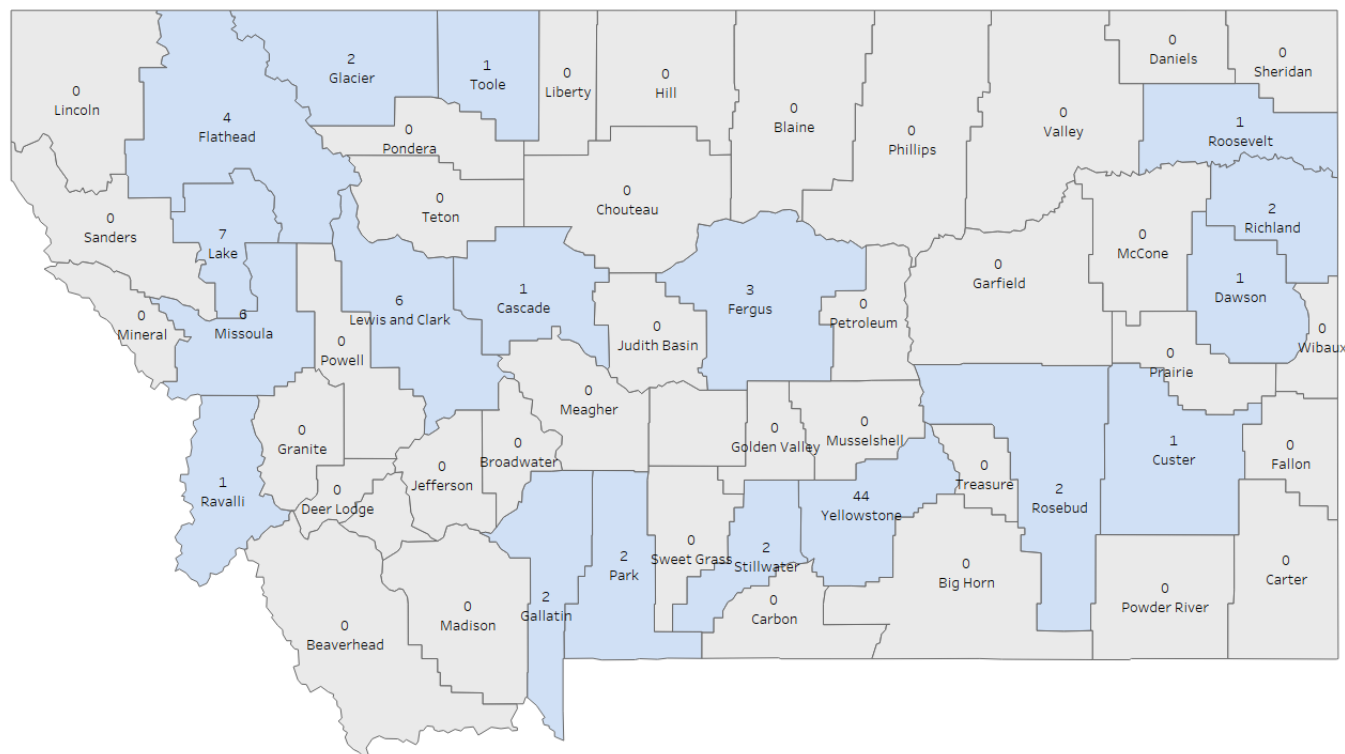
Eight ECHO Clinics were hosted in Y1; see Table 3 for the list of ECHO Clinics and the number of spoke participants. There were 112 unique spoke participants across Y1 ECHO Clinics. This included 92 clinical spoke participants, 12 non-clinical attendees, and 8 attendees who did not report their organization or role.

Table 3: ECHO Clinics and Clinical Spoke Participants

Date	ECHO Clinic Topic	Participants (N)
6/9/2020	MOMS Intro & Project ECHO	11
6/23/2020	Postpartum Hypertension	20
7/14/2020	Postpartum Depression	18
7/28/2020	Treatment of Syphilis in Pregnancy	20
8/11/2020	ASAM and the Perinatal/Postpartum Patient: Montana's Continuum of Care	25
8/25/2020	Introduction to the Alliance for Innovation on Maternal Health (AIM) Bundles	29
9/8/2020	The Basics of MAT Training, Certification and Implementation	16
9/22/2020	Adapting to COVID-19	19

Participants were from 18 counties across Montana and 4 participants from healthcare facilities in Wyoming. Figure 4 shows the number of participants by county in Montana.

Figure 4: ECHO Unique Clinical Spoke Participants by County (N=88) (Y1)



Continuous Quality Improvement

Evaluation team members observed the ECHO Clinics and completed a TeleECHO Session Scorecard created by the University of New Mexico Health Sciences and ECHO Institute. The scorecard was modified to consolidate the total number of statements. The scorecard evaluates the meeting logistics, connectivity/IT, and the didactic and case presentations. Overall strengths and areas for improvement are summarized below.

Strengths

- **Diverse participation** – demonstrated by a multidisciplinary set of providers and facilities from across Montana and increasing spoke participants over the quarter.
- **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 videos to enhance engagement.

After each ECHO Clinic, participants receive an online evaluation. Fifty-five participant evaluations were submitted in Y1. Evaluations collect information on ECHO Clinic content, quality, enhancement of knowledge, relevance to practice, and application. Figure 5 shows combined responses from all ECHO Clinics on the enhancement of knowledge, and Figure 6 shows combined responses on the application to practice.

Figure 5: Enhancement of Knowledge

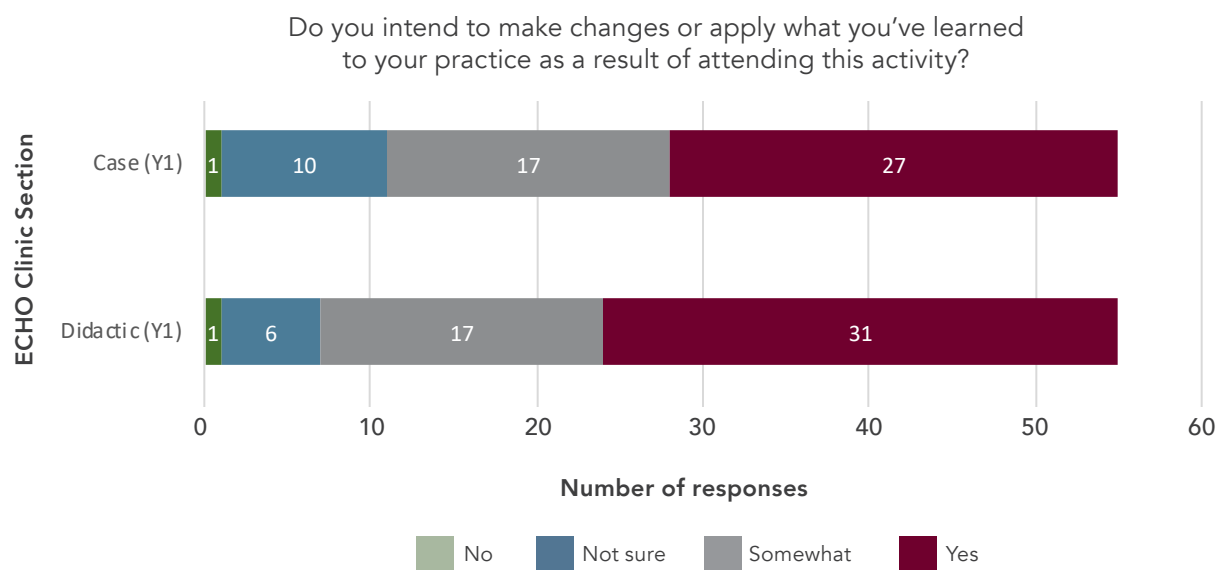
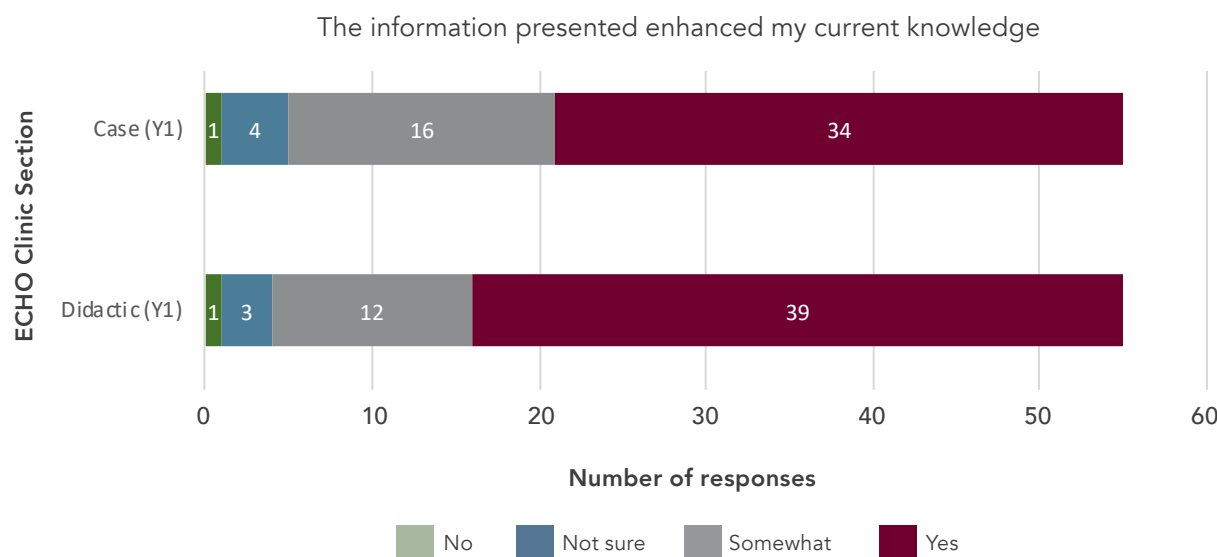


Figure 6: Application to Practice



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 few comments submitted by ECHO participants.

"I liked learning about the case studies. I love hearing what is really going on in the unit and how it was treated." – ECHO Participant

"I understand from this training mothers who are using substances in their pregnancy and after delivery have much shame and guilt. Acceptance and gentleness, compassion is a welcome reprieve for them from professionals." – ECHO Participant

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 first year of Project ECHO has made significant progress toward these goals; in Y2, the Billings Clinic team should aim to increase participation among physicians, increase the utility and clinics' engagement with the case presentation, and continue to utilize ECHO to improve relationships between providers across the state.

Activity 3.2

Dissemination of Best Practices in Maternal Health

The program staff from DPHHS and Billings Clinic disseminated 31 resources on best practices in maternal health. Resources included information on webinars/conferences, grant opportunities, and best practices. Resources are distributed by email and shared on the MOMS program website resources page.

- **Resources Developed by MOMS:** COVID-19 Resources for Maternal Health Providers; MOMS Infographic; ECHO Participant Guide; Maternal Health Programs and Resources; Needs Assessment Review & Leadership Team Discussion.
- **Webinars/Trainings/Conferences:** Inpatient Obstetric Certification (RNC-OB Training); Air Force OB Safety and Critical Care Conference; HHS Telemedicine Hack Learning Opportunity; Telehealth and Preventative Care During COVID-19 a WPSI Webinar; Foundations of Telehealth: A Focus on Women's Health Webinar; National Maternal Health Innovation Symposium (virtual event); New Joint Commission Standards for Perinatal Safety; HRSA: Using Telehealth to Screen for Maternal Mental Health Issues.
- **Grant opportunities:** Maternal Health Learning Institute Telehealth Grant Opportunity; Innovating Perinatal Services Relief Fund (Reaching Our Sisters Everywhere); Maternal Telehealth Access Project (National Birth Equity Collaborative); Supporting Providers and Families to Access Telehealth and Distant Care Services for Maternal Health Services (MHLI).

- **Other resources:** Rural Health Toolkit; Parenting Montana; Alliance for Innovation on Maternal Health (AIM); Simulation in Motion Montana (SIM-MT); Healthy Mothers Healthy Babies; Montana Family Planning Title X Clinic Directory; The American College of Obstetricians and Gynecologists; Project ECHO Recording & Material Archives; Maternal Fetal Triage Index; Emergency Delivery Supply List; Urgent Maternal Warning Signs Toolkit; ACOG-SMFM COVID-19 Algorithm; Utah Department of Health: Opioid Use Disorder Safety Bundle; CDC Hear Her Campaign.

Cultural Consultation

To ensure that best practices, education materials, and other resources are both relevant to Montana's tribal communities and reach AI/AN populations and health services facilities, Billings Clinic has engaged the services of a MOMS Cultural Consultant. This consultant has been charged with producing local resource guides, conducting ECHO Cultural Evaluation Surveys, delivering didactic presentations to ECHO clinics, and engaging with tribal health agencies and councils to cultivate strong relationships and community support for MOMS demonstration project initiatives.

Activity 4.1

EMPATHS Pilot

Billings Clinic has partnered with the Rimrock Foundation to implement the Eastern Montana Perinatal Addiction Treatment Health System (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 is a pilot project that consists of a system-level treatment model which will include universal screening for substance use in pregnancy and a system to refer patients to telehealth substance use disorder treatment. The objectives of this pilot study are to evaluate the feasibility and acceptability of this treatment model. The study may provide benefits to both patients and providers participating in the study. Providers will receive training and support in screening, brief intervention referral to treatment (SBIRT). Patients may have greater access to SUD treatment. These findings will also inform the implementation of this type of treatment model in other healthcare settings. Planning for this pilot study has taken place in Y1, and launch is scheduled for Y2.

Activity 4.2

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

Activity 4.3

The needs assessment revealed that a general call-in support line for obstetric care is not an outstanding need for rural providers. Additionally, the Meadowlark Project, which is also HRSA-funded, is creating a perinatal behavioral health call-in support line. The MOMS Program has therefore determined that an additional call-in line would be redundant and unresponsive to local needs. Grant funds allocated to this activity are redirected to increase simulation trainings and certification opportunities for rural providers.

Activity 5.1

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. Given the large distances traveled by women seeking prenatal and labor and delivery care in this state, the immediacy of the COVID-19 threat catalyzed conversations on the Maternal Health Leadership Council and beyond about how to utilize telehealth modalities to best serve Montanans. This research is important because these solutions, though precipitated by COVID-19, may uncover some new paths to delivering maternal healthcare to women living far from care.

Research Aims

- Describe the experiences that maternal healthcare providers have had moving to telemedicine models during a global pandemic.
- Generate clinical delivery recommendations for systems to institutionalize telemedicine in maternal care in rural communities during the ongoing pandemic and beyond.

Study Population

Eligible study participants included obstetricians and advanced practice registered nurses (APRN) with a specialty in obstetrics and gynecology in Montana, Idaho, and Wyoming. Idaho and Wyoming were added to the study given the similarity of these states to Montana in terms of population, rurality, and general culture. All obstetricians in Montana, Idaho, and Wyoming were emailed an invitation through the American College of Obstetricians and Gynecologists (ACOG) District VIII listserve. A follow-up letter was mailed to all OBGYN and APRN practice locations. Participation involves a 30-minute interview over the Zoom video conference platform. Table 4 shows interviews conducted to date. The study is in progress.

Methodology

This study uses data collected through qualitative semi-structured interviews conducted over Zoom. Interviews are recorded and transcribed, then coded for themes.

Table 4: Interviews

State	Interviews (N)
Montana	9
Idaho	7
Wyoming	3
Total	19

Activity 5.2

Nurse Certification

In coordination with MOMS, Billings Clinic hosted an Inpatient Obstetric Certification course (RNC-OB) January 20-21, 2020. The MOMS grant sponsored registration fees for 12 nurses from rural sites, including Wolf Point, Poplar, Sidney, and Glasgow, and printed education materials for all 40 training participants. RNC-OB is the national certification for Inpatient/Acute Care Obstetrical Nursing.

Simulation Training in Obstetric Care for Rural Communities

SIM-MT designs and runs life-like simulations for trauma care and dangerous patient events. Billings Clinic contracted with SIM-MT, who utilizes Best Practice Medicine as the implementation partner, to provide obstetric simulation training for non-birthing, critical access hospitals. Billings Clinic contracted with SIM-MT to begin obstetric care simulation trainings in rural hospitals starting in Q2 of the first year (January 2020). SIM-MT was contracted to conduct 72 trainings over the course of Y1. SIM-MT scheduled its first training in February for mid-March, which was then postponed due to shelter-in-place directives related to COVID-19.

Participants

During Y1, SIM-MT completed 12 of the 72 contracted trainings. See Figure 7 for a map of where the SIM events were held in Montana. Two SIM events were conducted in Wyoming, at healthcare facilities in Powell and Lovell. Table 5 includes the list of SIM-MT training sites and the number of participants. Table 6 shows participants by healthcare profession.

Figure 7: SIM Training Locations

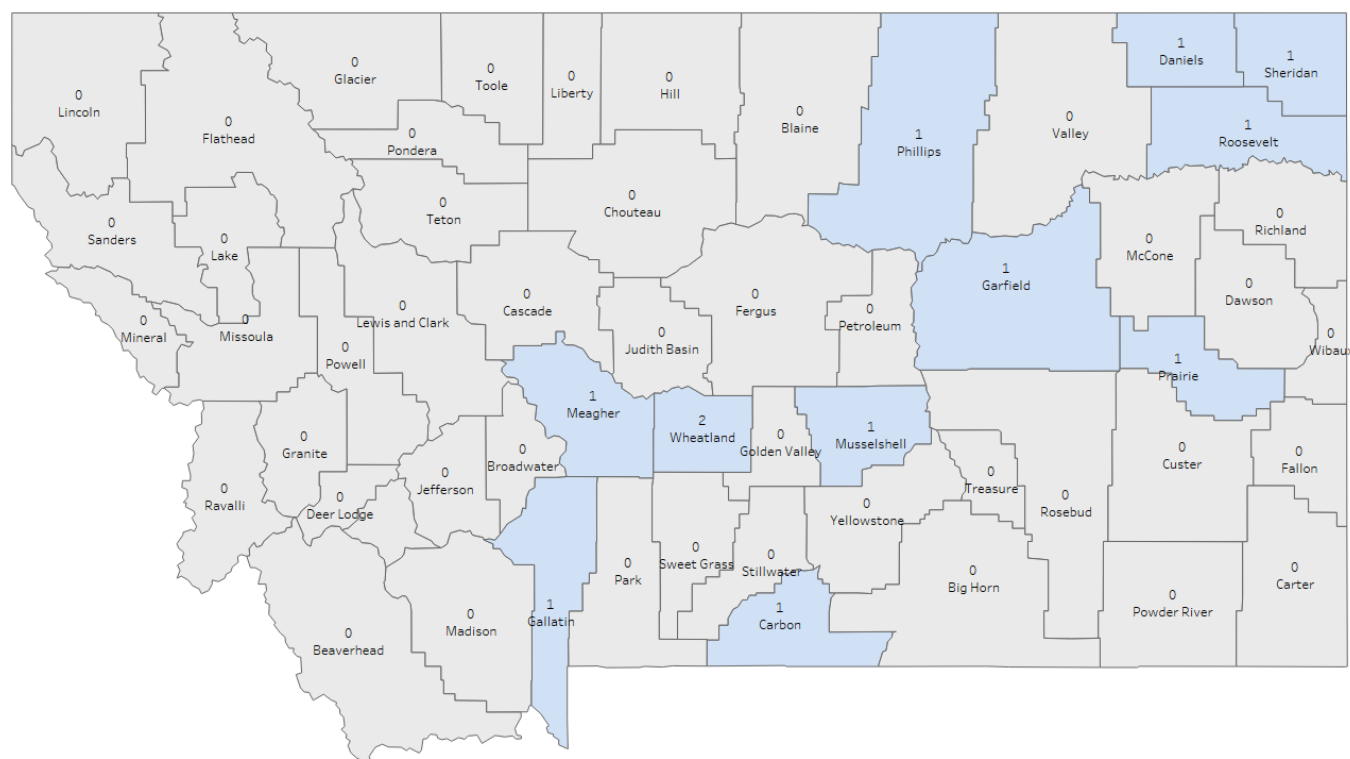


Table 5: SIM-MT Trainings Site and Participants
SIM 2 – Normal Delivery
SIM 3 – Normal Delivery Sick Baby
SIM 4 – Postpartum Hemorrhage

Quarter 3					
Date	Facility	Simulation	City	Participants (N)	Pre/Post Data
5/12/2020	Sheridan Memorial Hospital	SIM 2	Plentywood	10	No
6/2/2020	Roosevelt Memorial	SIM 2	Culbertson	11	No
6/16/2020	Garfield County Health Center	SIM 2	Jordan	7	No
6/17/2020	Wheatland Memorial	SIM 2	Harlowton	12	No
6/25/2020	Daniels Memorial	SIM 2	Scobey	12	No
6/25/2020	Prairie Community Hospital	SIM 2	Terry	11	No
Quarter 4					
Date	Facility	Simulation	City	Participants (N)	Pre/Post Data
7/29/2020	Mountain View Medical Center	SIM 3	White Sulphur	14	No
8/7/2020	Beartooth Billings Clinic	SIM 3	Red Lodge	14	No
8/26/2020	Wheatland Memorial	SIM 3	Harlowton	11	No
9/3/2020	Big Sky Medical Center	SIM 3	Big Sky	16	Yes
9/8/2020	Roundup Memorial Hospital	SIM 3	Roundup	14	Yes
9/30/2020	Phillips County Hospital	SIM 3	Malta	13	Yes

Table 6: SIM-MT Participants by Healthcare Profession

SIM Participants by Profession	
Role	Number
Nurse	83
EMT/Paramedic	16
Nurse Practitioner	9
Physician Assistant	6
Physician	8
Nursing Student	3
Clinical Laboratory Science	2
Sheriff	1
Certified Medical Assistant	1
Certified Nurse Assistant	1
Respiratory Therapist	1
Other	14
Total	145

Evaluation Assessment

Highlighted Strengths

COVID-19 impacted several Objective C activities. Access to hospitals to conduct trainings was limited for over three months, and health providers have been pulled in many directions as their communities and facilities have responded to this public health emergency. Despite these challenges, the MOMS team has been able to conduct formative research, provide nursing certifications and simulation trainings, and dedicate time toward designing a new system of perinatal behavioral healthcare that will be piloted in Y2-5.

Recommendations for Improvement

During Q1 and Q2, SIM-MT was nonresponsive to requests to engage in evaluation activities, including providing training learning objectives and committing to engage in data collection. Due to these communications challenges, simulation trainings began in May without involvement from the evaluation team or data collection processes in place. Through continued efforts to include evaluation into the simulation training activities, communication resumed in Q3, and in June 2020, IRB approval was sought for a pre- post-training survey research design approach to assessing the uptake and retention of new information and skills by participants trained by SIM-MT. IRB approval was granted, and Qualtrics surveys were shared with the SIM-MT team for feedback and revision. Separately, the SIM-MT team agreed to also collect information about equipment on site at the facilities where the simulation trainings took place, using a checklist provided by the MOMS team. Communication

challenges continued through the summer, and there were considerable delays in receiving feedback regarding the content of the pre- and post-surveys from the SIM-MT team, as well as about the logistics of coordinating with the evaluation team about details of the trainings (when they would be scheduled, take place, who would participate, and how to effectively communicate with the SIM-MT team and/or trainees [with links to the Qualtrics surveys]. Some of these delays appeared to be associated with personnel changes within SIM-MT. In September, an effective communication system and survey administration system was established, and data collection for the evaluation activities commenced. Due to the delays described above, just 12 of 72 contracted trainings were conducted in Y1; of these, evaluation data has been collected for three trainings. The evaluation team recommends:

- Postpone future contracting discussions with SIM-MT until postponed Y1 obligations have been met in Y2.
- Utilize evaluation data to inform decision to continue with this contractor to provide simulation trainings.
- Reduce total number of trainings sought in future contracts and target trainings to locations based on skills needs.

Year 2 Preview

Prenatal Telemedicine and Remote Monitoring

Billings Clinic has begun the planning process to implement telemedicine interventions during the prenatal period, such as OB Nest, a prenatal care model developed by Mayo Clinic that combines traditional in-person prenatal visits with telemedicine appointments and in-home monitoring to reduce the frequency of in-person prenatal visits. This initiative aims to improve access to quality care for rural and remote patients and reduce the risk of motor vehicle accidents for patients traveling long distances for frequent prenatal appointments.

The training component of MOMS will be modified and adapted based on the experiences and lessons from Y1. Billings Clinic is in discussions with ACOG to implement a train-the-trainer model to improve obstetric safety in hospitals. Additionally, partnerships with other MHI states, namely Illinois and Ohio, are providing the MOMS team with new training techniques and modalities to implement in Y2-5.

Conclusion

In its first year, the MOMS program made progress toward achieving the MHI program goal of “improving maternal health outcomes in the United States by: catalyzing multidisciplinary collaboration; collecting and analyzing maternal health data; and, promoting and executing innovation in maternal health service delivery to advance evidence-informed strategies that achieve a measurable impact.” Specifically, MOMS has created a strong Leadership Council that includes buy-in from a broad sample of stakeholders who can impact maternal health. The Leadership Council is engaging with the Needs Assessment to construct the strategic plan, and members demonstrate commitment to this project. The MOMS Project ECHO, led by the hub at Billings Clinic, has succeeded in generating broad geographic representation, and is making progress in establishing strong consultation relationships between providers who previously may have been isolated in rural areas without this important support.

Several lessons have been gleaned from this first year of MOMS as well. While simulation trainings are an important resource and innovation in obstetric care, more should be done to ensure that trainings are targeted by population and skills needs in different facilities. The process of data alignment has also been a challenge in this first year. While progress has been made, more attention should be paid to ensuring that data is accessible to stakeholders and policy-makers who are empowered to use the data to drive resource and policy decisions. Finally, COVID-19 has forced the issue of adaptability and flexibility into American lives. MOMS has learned a lot from new systems and tools that have been created out of necessity during this pandemic; these lessons will likely inspire system changes, such as widespread policies that better enable telemedicine, that outlast the current public health crisis.

