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Rural Maternal Health Series: Engaging with Perinatal Quality Collaboratives for Rural Hospitals

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Rural Maternal Health Series: Engaging with Perinatal Quality Collaboratives for Rural Hospitals

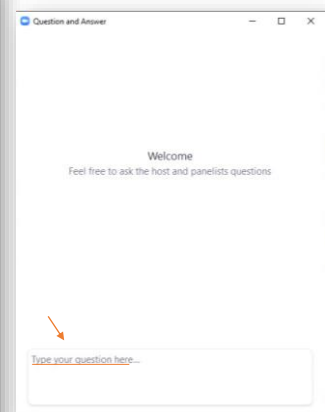
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If you have questions...



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## Rural Maternal Health Learning Series Welcome and Introductions

**Dr. Kristen Dillon, MD, FAAFP, Chief Medical Officer**  
**Federal Office of Rural Health Policy (FORHP)**  
**Health Resources and Services Administration, U.S. Department of Health and Human Services**

**Vision: Healthy Communities, Healthy People**



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## Featured Speakers



**Jacqueline Wallace MD, MPH**, Perinatal & Infant Health Team, Maternal and Infant Health Branch, Division of Reproductive Health, National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP), Centers for Disease Control and Prevention (CDC)



**Caroline Sedano**, Perinatal Unit Coordinator at the Washington State Department of Health



**Annie Glover, PhD, MPH, MPA**, Senior Research Scientist at the University of Montana Rural Institute for Inclusive Communities and a Research Associate Professor at the University of Montana School for Public and Community Health Sciences

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# STATEWIDE PERINATAL QUALITY COLLABORATIVES

Maternal Health Learning Series  
Federal Office of Rural Health Policy  
March 26, 2024



**JACQUELINE WALLACE MD, MPH**  
MEDICAL OFFICER, PERINATAL QUALITY COLLABORATIVE PROGRAM  
PERINATAL & INFANT HEALTH TEAM  
MATERNAL AND INFANT HEALTH BRANCH, DIVISION OF REPRODUCTIVE HEALTH

Centers for Disease Control and Prevention

National Center for Chronic Disease Prevention and Health Promotion



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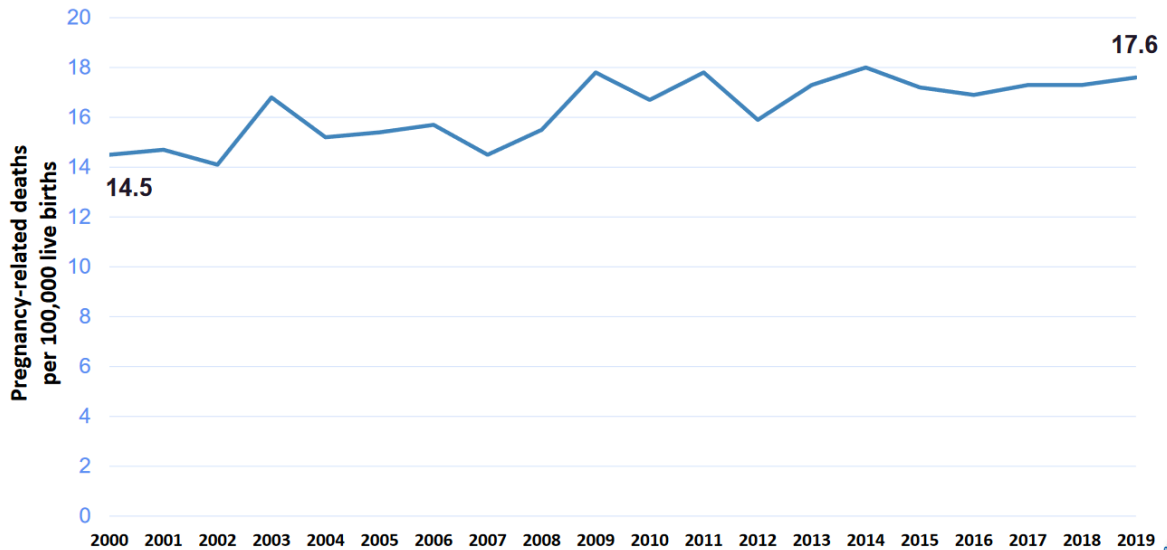
## OUTLINE

- Setting the stage
- Quality Improvement in Maternal/Child Health
- Working with Perinatal Quality Collaboratives



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## Pregnancy-related Mortality Ratio by Year: 2000-2019, PMSS\*

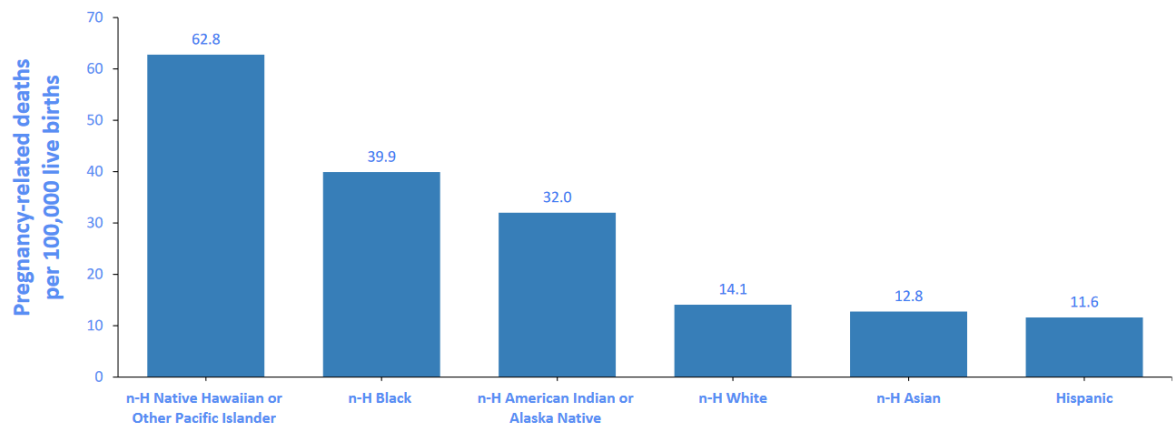


\*CDC Pregnancy Mortality Surveillance System. <https://www.cdc.gov/reproductivehealth/maternal-mortality/pregnancy-mortality-surveillance-system.htm>



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## Pregnancy-related Mortality Ratio by Race-ethnicity: 2017-2019, PMSS\*



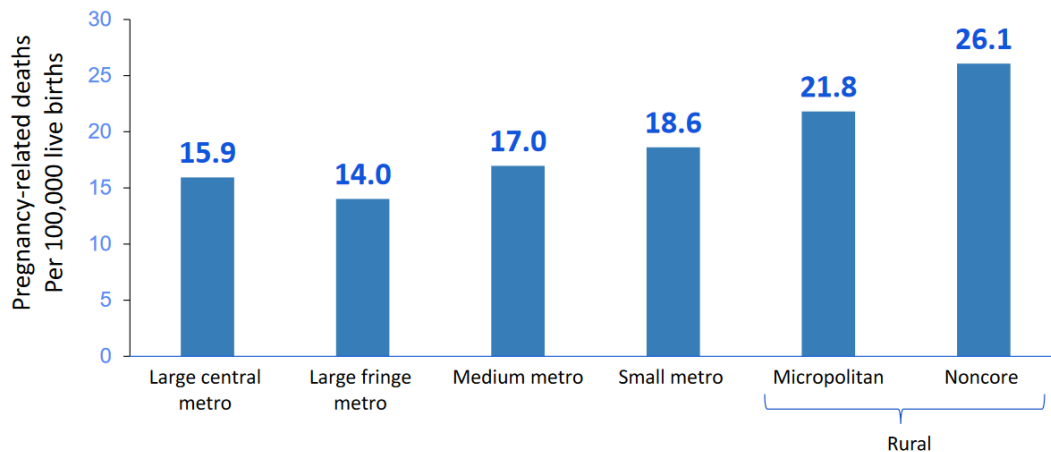
Multiracial PRMR for 2018-2019 = 7.1 pregnancy-related deaths per 100,000 live births.

Race or ethnicity was missing for 1.4% of pregnancy-related deaths in 2017-2019; PRMRs for non-Hispanic Other Race were not calculated due to small numbers.

\*CDC Pregnancy Mortality Surveillance System. <https://www.cdc.gov/reproductivehealth/maternal-mortality/pregnancy-mortality-surveillance-system.htm>

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## Pregnancy-related Mortality Ratio by Urban-Rural Classification: 2017-2019, PMSS\*



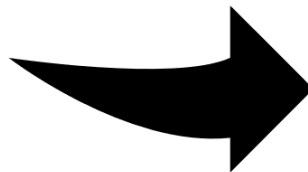
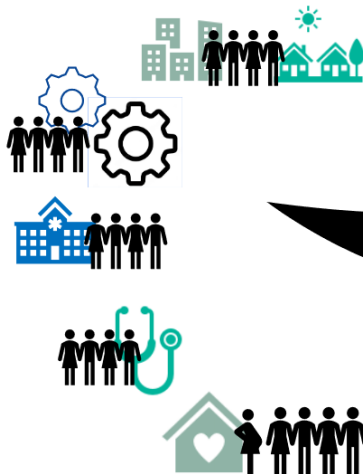
Urban-rural classification was missing or unknown for 2.4% of pregnancy-related deaths in 2017-2019.

\*CDC Pregnancy Mortality Surveillance System. <https://www.cdc.gov/reproductivehealth/maternal-mortality/pregnancy-mortality-surveillance-system.htm>



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## MMRCs Determined:



**84% of pregnancy-related deaths were determined to be preventable**

<https://reviewtoaction.org/>

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## BIRTHING FRIENDLY HOSPITAL DESIGNATION

- CMS designation to describe high-quality maternity care
- To earn designation, hospitals or health systems are required to respond to:
  - **Question:** Does your hospital or health system participate in a Statewide and/or National Perinatal Quality Improvement Collaborative Program aimed at improving maternal outcomes during inpatient labor, delivery and post-partum care, **and**
  - has implemented patient safety practices or bundles related to maternal morbidity to address complications, including, but not limited to, hemorrhage, severe hypertension/preeclampsia or sepsis?
  - **Answer Choices:** (A) Yes, (B) No, or (C) N/A (our hospital does not provide inpatient labor/delivery care)



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## BRIEF HISTORY OF PERINATAL QUALITY IMPROVEMENT (QI)

1990s

2000s

2010s

2020s

- New emphasis on QI
- 1997: first PQC formed, California Perinatal Quality Collaborative
- Growth of perinatal QI movement, spearheaded by states, private & professional organizations
- CDC begins providing support to PQCs in 2011
- 2016: National Network of PQCs (NNPQC) launched, supported by CDC
- A PQC exists in every state
- 2022: 4<sup>th</sup> iteration of CDC funding for PQCS begins, supporting 27 PQCs & coordinating center for NNPQC
- 2023 CDC provides funding for nine additional PQCs



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## PERINATAL QUALITY COLLABORATIVES (PQCs)

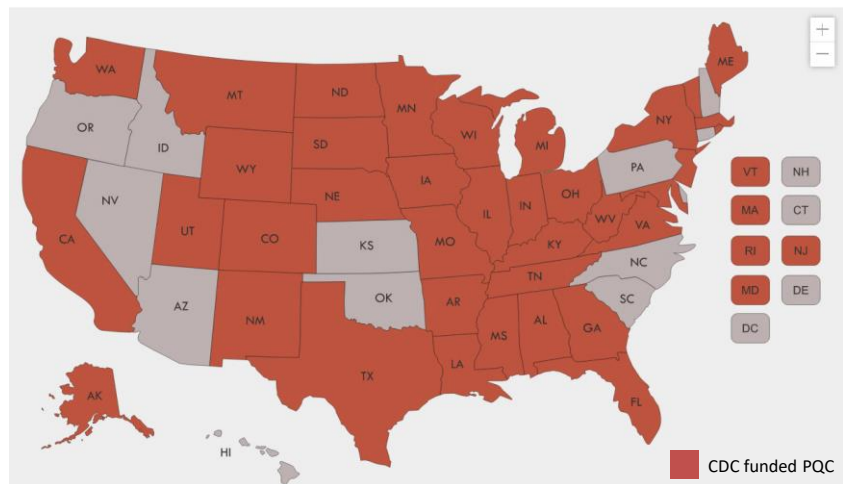
- **State or multi-state networks**
- **Multidisciplinary teams**
- **Population-level impact**
- Advance **evidence-based** clinical practices and processes
- **Quality improvement (QI) principles**



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## PQCs ACROSS THE NATION

- PQC exists in every state and Washington, DC
- Institutional home of PQCs varies
- PQC quality improvement (QI) initiatives vary
- Interactive map <https://nnpqc.org/>



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## THREE PILLARS OF PQC QI INITIATIVES



Collaborative  
Learning



Rapid Response  
Data



Quality Improvement  
Science Support

Achieve improvements in population-level  
maternal and infant health outcomes



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## THREE PILLARS OF PQC QI INITIATIVES



Collaborative  
Learning

- Webinar series
- Simulation training
- Kickoff meetings
- Newsletters
- Podcasts



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## THREE PILLARS OF PQC QI INITIATIVES



### Rapid Response Data

- PQC analyzes hospital level, de-identified data
  - Aggregate, disaggregate
- Summary reports
  - De-identified comparison across state, regions or nationally



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## THREE PILLARS OF PQC QI INITIATIVES



### Quality Improvement Science Support

- Coaching calls
- Quality Improvement methods training
- Site visits



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## PQCs MOVING FORWARD



- Emphasis on **Health Equity**
- Engage all facilities providing prenatal, delivery, postpartum or infant care
- Increase **patient/community engagement**
- Increased **emphasis on partnerships and collaborations**



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## WAYS TO CONNECT.....

- Identify who is working on perinatal QI in your network or health system and what they are working on
- Identify who could make up a Quality Improvement Team
- Contact your state PQC
- Read your state MMRC report

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# Thank You!

Jackie Wallace  
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Centers for Disease Control and Prevention

National Center for Chronic Disease Prevention and Health Promotion

Division of Reproductive Health

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

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WASHINGTON STATE  
DEPARTMENT OF HEALTH  
MATERNAL HEALTH LEARNING SERIES: RURAL  
HOSPITALS, MARCH 2024

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## Maternal, Child and Family Health in Washington

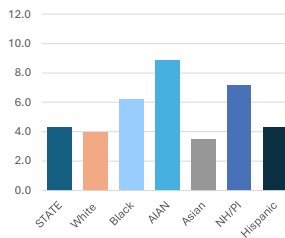


74.5% pregnant people receive prenatal care in the 1<sup>st</sup> trimester

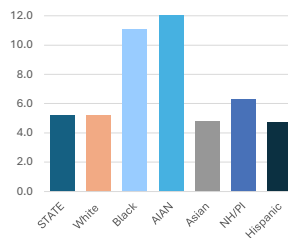


Average 85,000 births/year  
48% covered by Medicaid

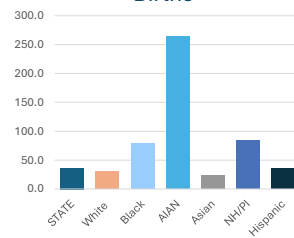
**Infant Mortality 2020-2021**  
Rate per 1,000 Live Births



**Fetal Death 2019-2021**  
Rate per 1,000 Live Births



**Maternal Death 2014-2020**  
Rate per 100,000 Live Births



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## Maternal Mortality Report, 2023

### Key Findings

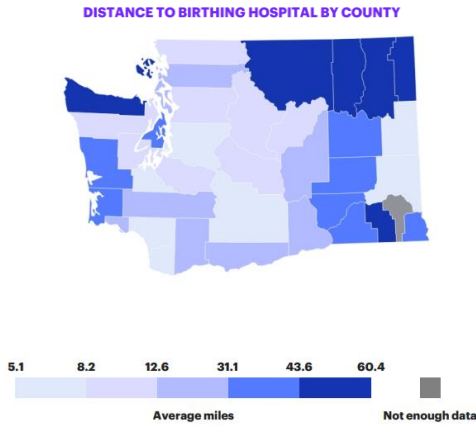
- 80 percent of pregnancy-related deaths in Washington were preventable and occurred after the end of pregnancy
- Leading causes of pregnancy related deaths were behavioral health conditions
- Substance use was associated with 20 percent of pregnancy-associated deaths
- American Indian/Alaska Native people face higher maternal mortality rate than any other race or ethnicity

### Recommendations

- Undoing Racism and Bias
- Address Mental Health and Substance Use Disorder
- Enhance Healthcare Quality and Access
- Strengthen Clinical Care
- Meet Basic Human Needs
- Address and Prevent Violence

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## Rural Maternal Health



- 41% of rural hospitals offer obstetrical labor and delivery services
- 11% decrease in birthing hospitals between 2018 and 2023

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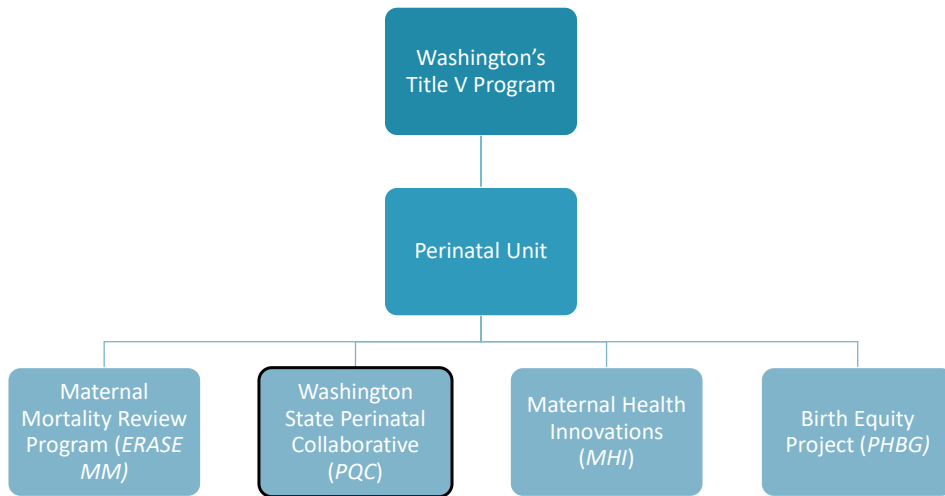
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Washington PQC:  
Washington State Perinatal  
Collaborative (WSPC)



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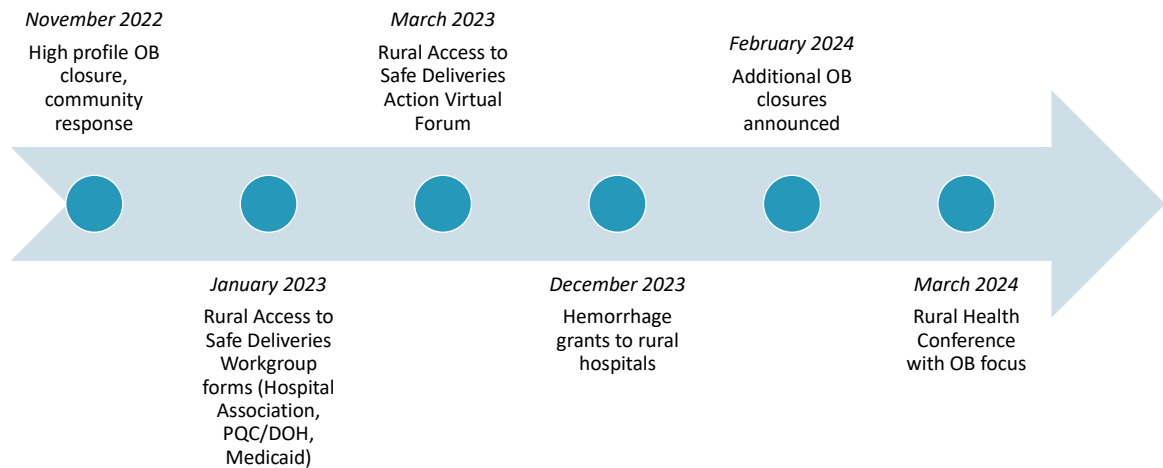
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## Response to rural health access concerns



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## Landscape assessment of rural providers

### Why are rural OB L&D services closing?


- **Not enough deliveries** to maintain the nursing staff or provider skills, resulting in increased risk deemed as unacceptable to the clinical team members.
- **Workforce shortages** and failed recruitments for qualified providers and nursing staff. Low volumes can also affect provider retention and recruitment. For example, new family medicine graduates often want to go where they can practice their OB skills. An OB may not be able to earn an acceptable income.
- **Expense** and low Medicaid reimbursement, with a large percentage of Medicaid lives in some rural communities.

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#### Facilitated by

- Washington State Department of Health  
– *Sate Office of Rural Health and WSPC*
- The Rural Collaborative
- Washington State Hospital Association
- The Health Care Authority/Medicaid



NORTHWEST RURAL HEALTH  
CONFERENCE- PRE CONFERENCE SESSION

## RURAL ACCESS TO SAFE DELIVERIES

MONDAY MARCH 25, 2024 | 9 A.M. - 12 P.M.  
DAVENPORT GRAND | SPOKANE, WA

**WHO SHOULD ATTEND:** People working in rural health systems with a labor and delivery unit, either open, or closed, or at risk of closing.

**WHAT YOU CAN EXPECT:**

- Status of rural OB and labor and delivery programs in Washington State.
- Summary of the financial constraints of rural OB and discussion around financial modeling.
- Learn from a panel of your peers about what they are doing that is working for their communities.

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## Ongoing PQC efforts to address rural health access

### Maintaining provider skill

- Simulation training for 44 rural/critical access hospitals (*Hospital Association*)
- Hemorrhage grants: \$5,000 grants for rural hospitals (*PQC*)
  - Improve hemorrhage programs, purchase equipment (“Jada System” or hemorrhage carts), or staff training including
  - Exploring grants for birthing centers
- *Exploring* regional training centers for rural providers (*PQC*)

### Workforce shortages

- *Exploring* Rural Provider Advisory workgroup (Family Practice and OB)
  - Chaired by WSPC clinical lead (*PQC*)

### Expense

- *Exploring* financial modeling technical assistance to support OB care, statewide rural health conference topic

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Thank you!

Caroline.Sedano@doh.wa.gov

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# Engaging Rural Hospitals in the Montana Perinatal Quality Collaborative

Annie Glover, PhD, MPA, MPH

Director / Principal Investigator, Montana Perinatal Quality Collaborative, Montana Alliance for Innovation in Maternal Health  
 Senior Research Scientist, University of Montana Rural Institute for Inclusive Communities  
 Research Associate Professor, University of Montana School of Public & Community Health Sciences



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# Healthcare Landscape in Montana

Montana has 62 total hospitals, including:

- 25 hospitals with OB units (14 CAHs, 1 IHS facility)
- 35 hospitals without OB units (all CAHs)
- 3 Indian Health service units

In 2021, we implemented, through the MHI grant, the CDC's Levels of Obstetric Care Assessment Tool (LOCATe) with 25 of 26 birthing facilities (one facility has closed its OB unit since the assessment).

- 68% of birthing facilities in Montana LOCATE-assessed at Level 1 or lower.
- Recommendations from this assessment included **engaging in education and training of providers and enhancing care through evidence-based practice with the Montana PQC.**

| CDC-Assessed Levels of Maternal Care<br>MT LOCATe Conducted July 2021 to October 2021 |                         |
|---|-------------------------|
| Facility Level (N=25)   | Locate Assessment n (%) |
| <Level I  | 6 (24.0)                |
| Level I   | 11 (44.0)               |
| Level II  | 6 (24.0)                |
| Level III   | 1 (4.0)                 |
| Level IV  | 1 (4.0)                 |

| Critical Access Hospital Capacity in Responding to Obstetric Emergencies<br>World Health Organization Emergency Obstetric Care Indicators |           |
|---|-----------|
| Emergency Obstetric Care Ability (N=30)<br>Hospital has the capacity to...  | n (%)     |
| Administer magnesium sulfate for severe preeclampsia and eclampsia  | 26 (86.7) |
| Perform basic neonatal resuscitation  | 26 (86.7) |
| Conduct blood transfusion   | 23 (76.7) |
| Administer uterotonic drugs <sup>a</sup>  | 16 (55.2) |
| Provide and interpret fetal heart tracing in an emergency setting <sup>a</sup>  | 10 (34.5) |
| Perform assisted vaginal delivery with a soft cup vacuum extractor  | 4 (13.3)  |
| Manually remove a placenta  | 4 (13.3)  |
| Remove retained products of delivery  | 4 (13.3)  |
| Hospital has a plan or policy for an emergency cesarean in the case of a life-threatening obstetric emergency                             | 1 (3.3)   |

Emergency Obstetrics Survey conducted October 18, 2021, to December 10, 2021  
\*-- N=29, one response missing

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## MPQC-AIM Initiatives

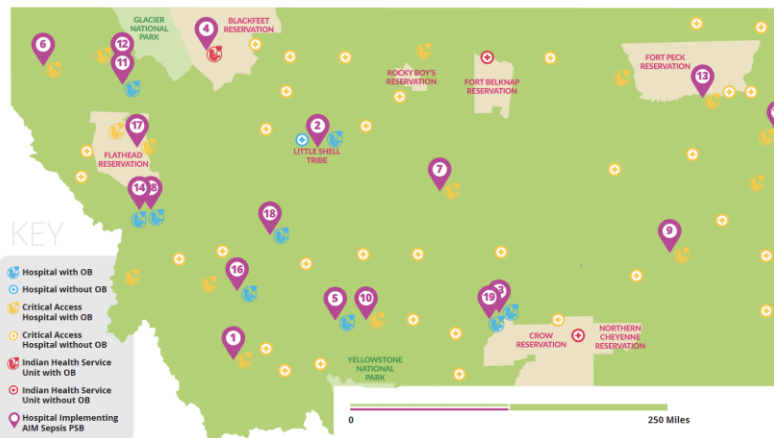
### AIM Obstetric Sepsis Bundle (2023-2024)

- 19 of 26 birthing facilities participating

### CAH Participation in MPQC-AIM (2021-2024)

- 16 Montana CAH are birthing facilities
- 1 IHS is a birthing facility
- 14 CAH and 1 IHS have implemented at least one PSB through PQC since 2021

## HOSPITALS ACROSS MONTANA Perinatal Quality Collaborative Reach and Montana's Maternal Health System



Fun facts:

- Fort Peck (3,270 sq. miles), Blackfeet (3,000 sq. miles), and Crow (3,593 sq. miles) are each larger than the state of Delaware (2,489 sq. miles.)
- Flathead (1,938 sq. miles) is larger than the state of Rhode Island (1,545 sq. miles).

### MPQC-AIM SEPSIS IN OBSTETRIC CARE BUNDLE COLLABORATIVE

- |                                   |                                       |                                 |
|-----------------------------------|---------------------------------------|---------------------------------|
| 1) Barrett Hospital & Healthcare  | 8) Community Medical Center           | 15) Sidney Health Center        |
| 2) Benefis                        | 9) Holy Rosary Healthcare             | 16) St. James Healthcare        |
| 3) Billings Clinic                | 10) Livingston Healthcare             | 17) St. Luke Community Hospital |
| 4) Blackfeet Community Hospital   | 11) Logan Health Kallispeil           | 18) St. Peter's Health          |
| 5) Bozeman Health                 | 12) Logan Health Whitefish            | 19) St. Vincent's               |
| 6) Cabinet Peaks Medical Center   | 13) Northeast Montana Health Services | Intermountain Health            |
| 7) Central Montana Medical Center | 14) Providence St. Patrick Hospital   |                                 |



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# MPQC-AIM Initiatives

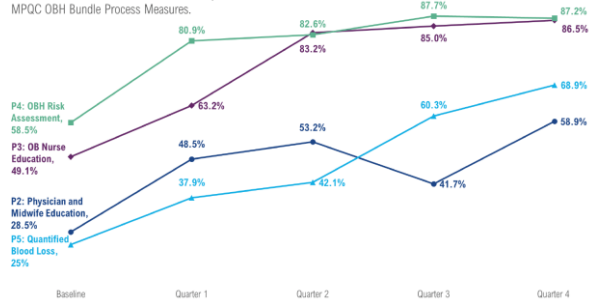
## AIM Obstetric Hemorrhage Bundle

- 10,794 total live births in 2020
- **8,110** (75.1%) births occurred in PQC hospitals participating in the OBH Bundle
- 17 of 26 birthing facilities participated

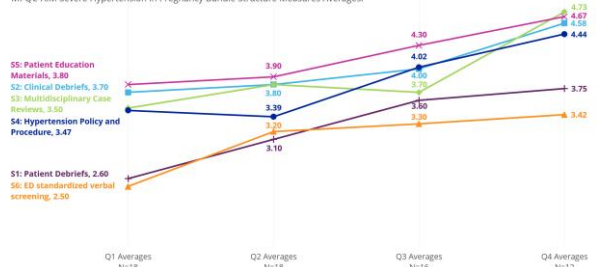
## AIM Severe Hypertension in Pregnancy Bundle

- 11,231 total live births in 2021
- **8,267** (73.6%) births occurred in PQC hospitals participating in the Hypertension Bundle
- 19 of 26 birthing facilities participated

The cumulative proportion of P5 (quantified blood loss) and P3 (OB nurse education) increased the most from baseline to quarter 4.



All MPQC-AIM structure measure averages increased from quarter 1 to quarter 4.



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# Emergency Obstetric Care in Montana

- Nearly half of Montana's CAH have closed their obstetric units in the last twenty years.
- Due to distance to care, pregnant people might seek care or deliver at a facility without an obstetrics unit.
- AI/AN pregnant people in Montana are 20 times more likely to give birth at a facility without an obstetrics unit (Thorsen et al., 2022).
- MPQC-AIM will start implementing AIM Obstetric Emergency Resource Kit in 2024 through PQC funding due to enormous need expressed by our non-birthing CAHs



Roundup Memorial Delivers First Baby in 8 Years



November 10, 2021



Roundup hospital had its first baby delivery in 8 years today! SummerLee Rose Greenberg was born to Jesse Lee Greenberg and Madisyn Magreggor on November 08-2021. After the delivery mom and baby were transported to Billings by ambulance for after care and hit a deer on the way!! Both are doing well!!! Thank you Roundup Hospital!!!!

Thorsen ML, Harris S, McGarvey R, Palacios J, Thorsen A. Evaluating disparities in access to obstetric services for American Indian women across Montana. The Journal of Rural Health. 2022;38(1):151-160. doi:10.1111/jrh.12572

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# Engaging Montana's Rural Facilities

## Key Partnerships

### State MHI Program

- Supported the pilot year of MPQC in 2021, LOCATe and EO initiatives, capacity mini-grants, PSB concordance between simulation training and MPQC-AIM Implementation

### Montana Hospital Association

- Essential for creating relationships, biggest advocates for QI for most MT facilities. Representative serves on the MPQC-AIM Steering Committee

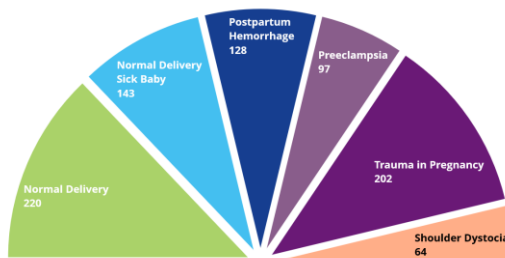
### Montana Perinatal Association

- Laid the groundwork for the MPQC through neonatal initiatives, has been a big support system of the maternal health initiatives. Representative serves on MPQC-AIM Steering Committee.

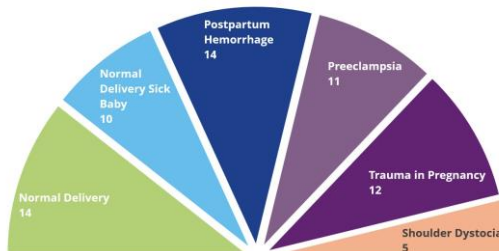


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All Montana MHI Grant Funded SIM-MT Simulation Participants 5/12/2020 - 3/9/2024.



All Montana MHI Grant Funded SIM-MT Simulations by Number of Facilities 5/12/2020 - 3/9/2024.



# Engaging Montana's Rural Facilities

## Key Implementation Strategies for Rural Hospitals

### Data Support

- PQC hospitals report process and structure measures to us quarterly through user-friendly REDCap system
- Coaching done through Simple QI for PDSA cycle tracking
- DUA with Montana Hospital Association for outcomes / surveillance measures
- We report to AIM Data Center on behalf of hospitals

### Accessible Learning Opportunities

- Synchronized with MHI simulation program
- Learning Sessions conducted on Zoom and recorded
- Innovative remote learning, such as table-top simulations and case-based learning

### Individualized QI Coaching

- All calls (orientation, learning sessions, and team calls) are held through synchronous Zoom calls
- Include content in each Learning Session specifically aimed at addressing rural hospital needs (i.e. staffing, resources available, etc.)
- Encourage partnerships between neighboring facilities, using the same EHR system, etc., through protected collaborative time
- We listen to evaluations and modify in response to facility feedback
- Launching new partnership with Montana State University College of Nursing DNP Program! DNP students will do their doctoral QI project as live QI coach for PQC sites.



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## Recommendations from Montana



My nephew made his entrance a few weeks early in a PQC CAH with OB.

He and mama were transported to a larger PQC facility after delivery; he spent several days in the NICU.

Both hospitals had implemented three PSBs with MPQC-AIM.

Mama and baby are home and doing well!

Nephew says...

- Rural OB care matters!
- Strong transport networks needed to facilitate high quality risk appropriate care inclusive of remote communities.
- CAHs, with and without OB units, are critical parts of the maternal health system.
- Rural hospitals need specialized supports to ensure operating at the top of their capacity.
- Must adapt PSBs for rural OB, rural ED, and transport realities.

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## Questions?

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[www.HRSA.gov](http://www.HRSA.gov)



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- Please complete webinar survey
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