

# 2023 Obstetric Emergency Readiness COL Offering #1

## Building a Rapid Response Team: Considerations for in-person and remote team composition and activation



Friday, March 24, 2023  
3:00 – 4:30PM EST



ALLIANCE FOR INNOVATION  
ON MATERNAL HEALTH

**The Alliance for Innovation on Maternal Health is a national, cross-sector commitment designed to support best practices that **make birth safer, improve maternal health outcomes, and save lives.****

**You can find more information at [saferbirth.org](https://saferbirth.org).**

This program is supported by a cooperative agreement with the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under grant number UC4MC28042, Alliance for Innovation on Maternal Health. This information or content and conclusions are those of the author and should not be construed as the official position or policy of, nor should any endorsements be inferred by HRSA, HHS or the U.S. Government.



# Before We Get Started

- ▶ You are **muted** upon entry to the call.
- ▶ **You will have the ability to unmute** yourself during Q&A times.
- ▶ We encourage participants to **remain muted** to reduce background noise.
- ▶ If you are experiencing technical difficulties, please chat an AIM staff member or **email [aim@acog.org](mailto:aim@acog.org)**

**This presentation will be recorded.**

**Both the slides and recording will be available on the AIM COLS 2022-2023 Webpage and shared in the follow-up newsletter.**



## Agenda

Welcome

Upcoming AIM Events and Resources

Speaker Presentation

Breakout Session

Speaker Presentation

Closing

# Upcoming Obstetric Emergency Readiness COL Events and Additional Resources





# Supplemental Funding Opportunity

- ▶ AIM has dedicated supplemental funding available to support obstetric emergency readiness projects
- ▶ Supplemental funding for obstetric emergency readiness projects can be submitted via a project narrative through AIM's Supplemental Funding Form.

**Only states and entities with an executed subaward agreement with ACOG are eligible for COL supplemental funding.**



# Upcoming Educational Offerings

Register at [saferbirth.org](https://saferbirth.org) under Resources > Events

Simulations for OB readiness in non-OB settings + strategies for remote drills and simulations

April 13, 2023  
3:00-4:30 PM EST

Standardized screening for current or recent pregnancy in the ED: Implementation strategies and lessons learned

April 26, 2023  
2:00PM-3:30PM EST

# 2023 Obstetric Emergency Readiness COL Offering #1

## Building a Rapid Response Team: Considerations for in-person and remote team composition and activation



Friday, March 24, 2023  
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# Faculty



Tara Lewis, MD  
Assistant Professor  
Department of Emergency Medicine  
University of Mississippi Medical Center



Linda Havey, DNP, RN-BC, CPHQ, C-ONQS  
AVP Operations  
University of Vermont Health Network  
Porter Medical Center

# Learning Objectives



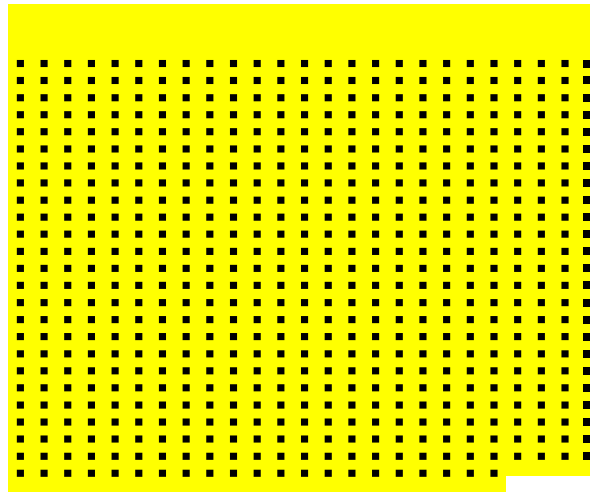
Identify key in person and/or remote members of a rapid response team

Describe how to implement structures and processes for activating the rapid response team

List at least 3 team communication best practices for rapid response teams

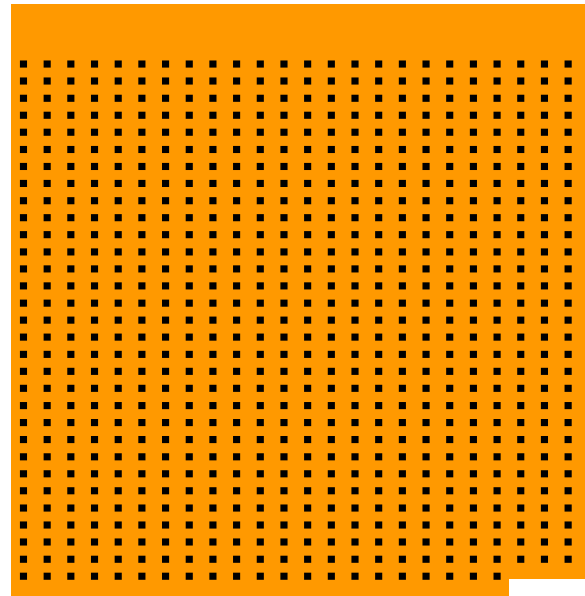
# Background

Maternal deaths in the US related to pregnancy



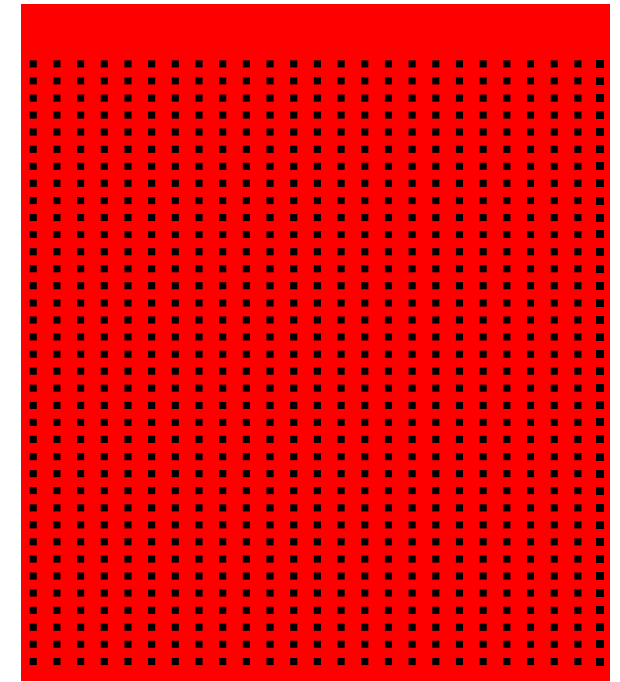
2018

16.7%



2019

14.2%



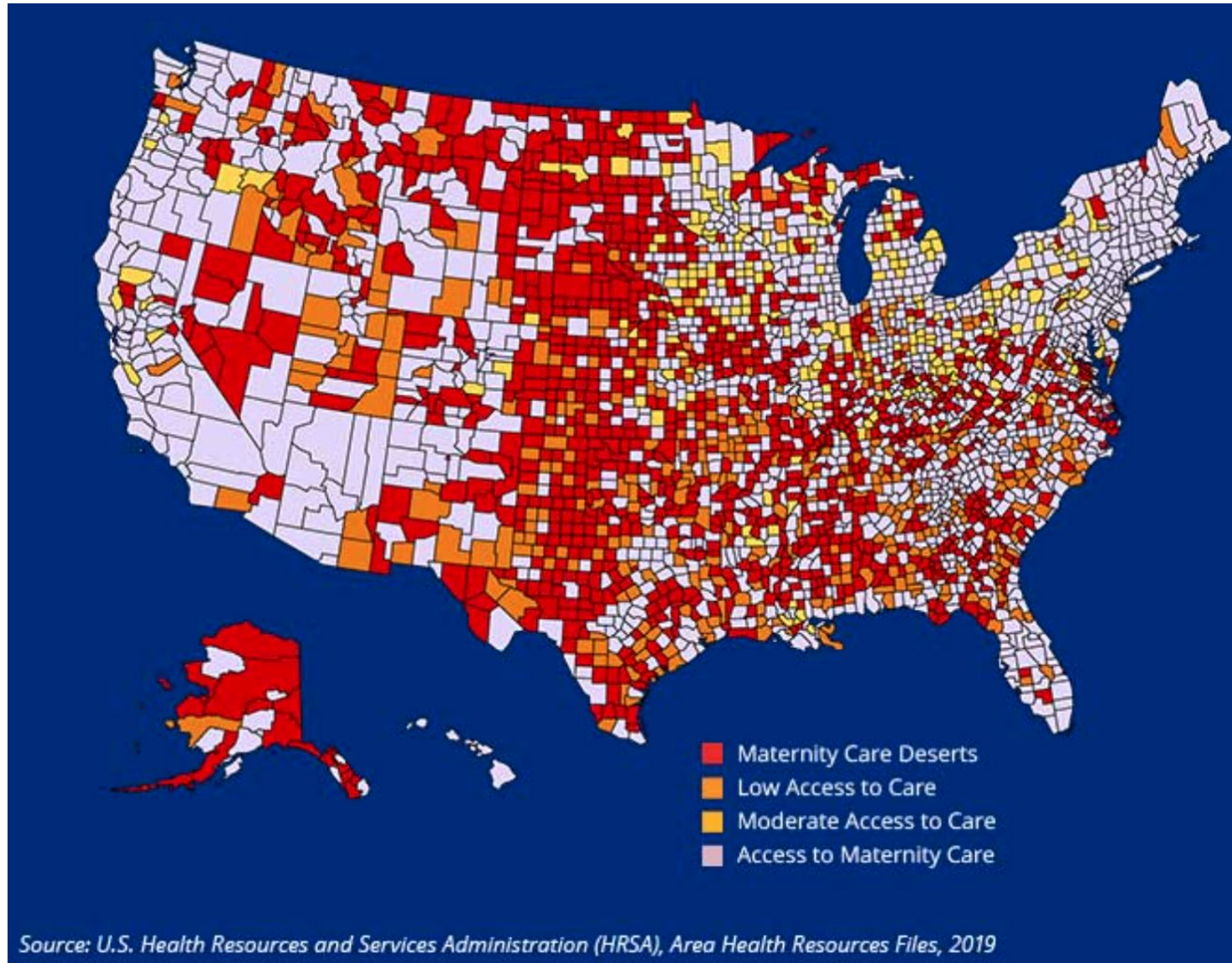
2020

Worsening maternal morbidity and mortality:

- In 2020, ~900 women died of causes related to pregnancy in the U.S.
- 14.2 percent increase in deaths from the previous year and a 30.9 percent increase since 2018.
- The number of women who experience pregnancy-related complications, or severe maternal morbidity, is steadily increasing, affecting at least 50,000 women each year (March of Dimes)

**CDC reported in 2022 that 4 out of 5 pregnancy related deaths in the U.S. are preventable**

# Maternity Care Deserts



## The March of Dimes 2022 report, Nowhere to Go: Maternity Care Deserts Across the U.S.:

- 36% of counties across the U.S. are identified as maternity care deserts
- 6.9 million women of childbearing age live in counties with limited to no access to maternity care and give birth to 1 in 8 babies (500,000 babies) a year

# Rural Obstetric Hospital Closures

The American Hospital Association released a report in Sept 2022 highlighting the variety of causes that resulted in 136 rural hospital closures from 2010 to 2021, and a record 19 closures in 2020 alone

## **Multifaceted Causes:**

- Low reimbursement
- Staffing shortages
- Low patient volume and regulatory barriers
- Continued financial challenges associated with the COVID-19 pandemic
- Dramatic increase in expenses for labor, drugs, supplies and equipment



# Result → Increased Rates of Obstetric Patients Presenting to Rural Emergency Departments



Limited information is available about local preparedness and capacity to support emergency obstetric services in rural communities, and there are no federal guidelines surrounding the provision of emergency obstetric care in rural US hospitals

**A study published in 2020 by Kozhimannil identified information from ED administrators at rural hospitals throughout the US regarding births in their departments and what type of training would benefit the staff**

- 65% of rural hospitals were located 30 or more miles away from a hospital with obstetric services
- 28% had births in their ED
  - 32% had unanticipated adverse birth outcomes
  - 22% experienced a delay in urgent transport
- 80% reported a need for additional training and/or resources for emergencies, which included neonatal resuscitation, precipitous childbirth, and management of serious complications such as postpartum hemorrhage
- Less than 1/5th of rural hospitals surveyed had capacity to perform surgery (16%), remove retained products of delivery (17%), or had a policy for emergency cesarean (18%)



# Barriers to ED Management of Obstetric Emergencies



Maternal and fetal survival may depend on the ability to successfully identify and manage labor, preeclampsia, eclampsia, hemorrhage, shoulder dystocia, malpresentation, cord prolapse, breech delivery, or fetal distress, but these are

***low incidence, high acuity  
conditions***

that ED staff may only manage once every few years

# Barriers to ED Management of Obstetric Emergencies



## Lack of identification of obstetric emergencies

- CDC reported that from 2011-2015 that 33% of maternal deaths happened 1wk-1 yr postpartum and reports contributing factors to include access to care, missed or delayed diagnosis, and not recognizing warning signs
- One Toolkit from the California Maternal Quality Care Collaborative specifically identifies the importance of education for staff working in EDs and emphasis on identifying postpartum patients
- A study conducted by Dillard showed trends indicating that under-response to abnormal vital signs during maternal hemorrhage led practitioners to denial and delay of treatment within the ED setting



# Barriers to ED Management of Obstetric Emergencies

## Lack of continuing education/comfort of non-obstetric providers



- Obstetric training of providers typically occurs at tertiary centers and doesn't address how to translate skills to alternate settings
- In 2020, The Univ of Minnesota Rural Health Research Center surveyed rural ED staff throughout the US, who reported they required better resources and training/simulation
  - Skills training was the most requested method of training

**The Emergency Nurses Association (ENA) and AWHONN released a consensus statement Nov 2020 regarding OB emergency simulations, noting that OB emergencies are rarely practiced in the ED and this leads to chaotic care**

# The Rural ED Setting Poses a Unique Challenge to Managing Obstetric Emergencies

- **Limited Staffing:** Fewer physicians, nurses, and other medical staff available to provide care
- **Limited Resources:** Certain tests, equipment, medications, consultants, or imaging modalities not available
- **Distance to larger hospitals:** Requires longer transport times, which can result in delays in care and increased risk for complications



**It is well documented that patients seen at a rural hospital with limited or no obstetrical support increases the risk for poor maternal and fetal outcomes**

Tallahatchie General Hospital is a small level 5 hospital in Mississippi that is over 1 hour away to the nearest Level 4 hospital and 75-90 minutes away from the nearest Level 3 with OB services

# What is a Rural Emergency Department?



## LEVEL III

Level III facilities do not have the full availability of specialists as Level I and Level II centers do, but they do have resources for emergency surgery and intensive care. In some cases, the facility might have to transfer patients.



## LEVEL IV

Level IV facilities provide initial evaluation, stabilization and diagnostic capabilities but will likely have to transfer the patient to a trauma care center with a higher designation.



## HOSPITALS

Nontrauma center emergency rooms can typically handle any case that comes in, stabilize the patient and transfer him or her to a trauma center if necessary.



**Emergency Departments in the US can be categorized in various ways, including by their level of care, ownership, and patient population served**

- Critical access hospitals (CAH) are smaller in size than other hospitals and provide limited inpatient and outpatient services
  - Designated by CMS as meeting certain criteria: being located in a rural area, having no more than 25 inpatient beds, and providing 24/7 emergency care
- Other Rural EDs: Typically Level IV Trauma Center Designation or Nontrauma Centers
- Freestanding EDs: Are not located within a hospital, but offer emergency services similar to hospital-based EDs



Helipad at Greenwood Leflore Hospital in the Mississippi Delta. Although this rural hospital is large in size, it has recently lost most specialty services, including Obstetrics.



Winston Medical Center in Louisville, MS after tornado damage in 2013 (top left), temporary trailers during repair (bottom left), and today (below)



More than

**50%**

of rural counties have no hospital-based obstetrical services.

It's not just a rural problem:

**1 of 3**

women in metropolitan or urban areas lives in an OB desert.



### **Pregnant and parenting people in rural communities have worse outcomes than those living in other areas.**

Rural residents have **9% greater probability** of severe maternal morbidity and mortality

Rural hospitals report **higher rates** of postpartum hemorrhage and blood transfusion during labor and delivery than do urban hospitals.

**More than 50%** of rural women, compared to 7% of urban women, must travel more than 30 minutes to reach the nearest hospital with obstetric services.

Extensive travel may contribute to **increased risks** of infant mortality and pregnancy complications.

### **Rural women of color are at particular risk.**

American Indian/Native Alaskan and Black women are **two to three times more likely to die** from pregnancy-related causes than white women.

In the past decade, rural counties with a higher proportion of non-Hispanic Black women were more likely **to lose obstetric services** than other rural counties.

# Response to Increased Rural Obstetric Emergencies

ACOG Committee Opinion No 590 Tools for Managing Clinical Emergencies
<ul style="list-style-type: none"><li>• Availability of appropriate emergency supplies in a resuscitation cart or kit</li></ul>
<ul style="list-style-type: none"><li>• Development of a rapid response team</li></ul>
<ul style="list-style-type: none"><li>• Development of protocols that include clinical trigger</li></ul>
<ul style="list-style-type: none"><li>• Use of standardized communication tools for huddles and briefs (eg, SBAR)</li></ul>
<ul style="list-style-type: none"><li>• Implementation of emergency drills and simulations</li></ul>



Development of a rapid response team is a patient safety initiative promoted by the American College of Obstetricians and Gynecologists, the Institute for Healthcare Improvement, The Joint Commission, the Agency for Healthcare Research and Quality (AHRQ), and the Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN)



# Appropriate Emergency Supplies

## Neonatal Resuscitation Equipment

- ETT – Neonatal Sizes
- Miller blades 0 and 1 (disposable)
- Laryngoscope (disposable)
- Supraglottic airway
- Oxygen masks – Neonatal Size
- BVM – flow inflating/self inflating
- Plastic bag / Ziploc bag
- Disposable warming mattress
- IO kit (appropriate needle sizes)

## Emergency Obstetric Package for Hospitals That Do Not Provide Delivery Services

The following supplies will help your facility be prepared for birth:

### Basic supplies for childbirth:

- 3 curved Kelly clamps
- 2 Mayo scissors
- 1 sponge stick
- 1 needle holder
- 1 large basin or 1 large kidney basin (for placenta)
- 1 10-pack sterile gauze sponges
- 1 Holister cord clamp (If no cord clamp, may use sterile gauze to tie off cord)
- Suction catheters
- 1 bulb syringe
- 4 sterile towels

### For perineal laceration repair:

- 1 11.2-inch 20-gauge needle
- 1 10-cc syringe
- 1% lidocaine
- Chromic “000” or Vicryl “000” suture
- Betadine solution

### Medication for Mother:

- 2 10-unit vials Pitocin (oxytocin injection)
- Rhogam [Rho(D) Immune Globulin (Human)], if necessary

### Medication for Infant:

- Erythromycin 1% eye ointment
- Phytonadione 1.2cc for injection (vitamin K)

Note: Preassembled kits are available commercially. However, these kits do not necessarily include clamps and scissors.



# What Are Rapid Response Teams

- Embrace the value of timely recruitment of expertise to critical situations based on the premise that earlier intervention would produce better patient outcomes
- Have been in existence for more than 2 decades in response to medical emergencies within hospital systems (Dalby and Gosman)
- Familiar to Emergency Medicine providers and staff in the medical context

Obstetric crises require rapid, coordinated intervention of a multidisciplinary team to optimize outcome, and it seems only intuitive that hospitals have incorporated rapid response teams to address these unpredictable events.

Obstetric RRTs have been increasingly described within tertiary medical centers with reported improved outcomes in maternal and fetal morbidity and mortality





## Breakout Rooms - 10 MINUTES

1. Assign a Scribe
2. Answer your Prompt
3. When you come back to the main room the scribe will enter group number and report out in chat. (this should be short synopsis of your answer – even bullet points)

Imagine you work in the emergency department of a rural, Critical Access Hospital that does not have OB services. You are part of a work group to plan for unexpected deliveries in your ED. You are charged with answering one of the following questions:

Breakout Rooms 1-12: Who do you want on the team? Who is available?

Breakout Rooms 13-24: What skills does the team need to have?

Breakout Rooms 25-36: What other resources exist (or should exist) to help?

# Welcome Back



*Scribes, please place your room number and your report out in the chat.*

Please don't worry about reading or copying the reports as we are going to place them all in a document that will be available at the end of the session.



## Steps to Create an OB Rapid Response Team (OB-RRT) in a Rural ED



# Steps to Create an OB Rapid Response Team (OB-RRT) in a Rural ED

Identify the Need

Comprise the Team

Create a Protocol of Care  
to be Delivered by the  
Team

Train Team Members

Monitor and Evaluate



Identify the Need

We've already established a need and have a precedent for RRTs as a useful tool in handling emergencies

Look at the number of obstetric emergencies that your department handles annually, and assess the risk factors associated with them

Comprise the Team

**Determine the scope of the team:**

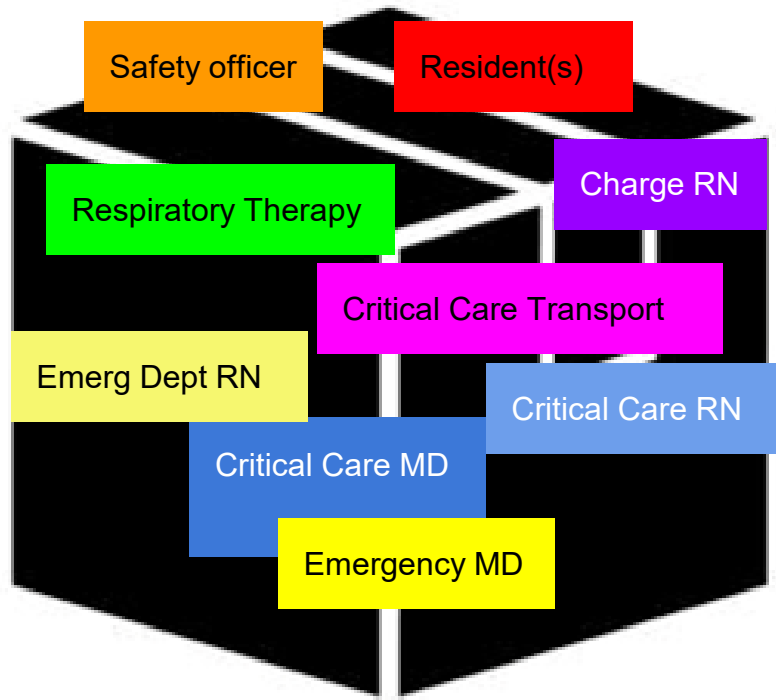
- **Number of team members**
- **Their roles and responsibilities**
- **Skills required**

*It is important to note that the exact makeup of the OB emergency rapid response team will vary depending on the specific resources and expertise available at the rural emergency dept.*

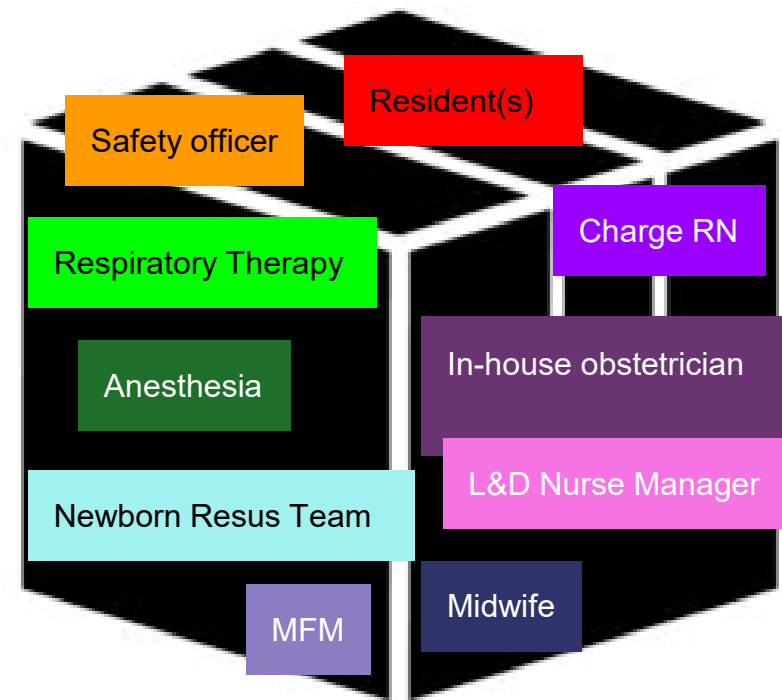
# Steps to Create an OB Rapid Response Team (OB-RRT) in a Rural ED

Comprise the Team

## Standard Medical RRT Members:



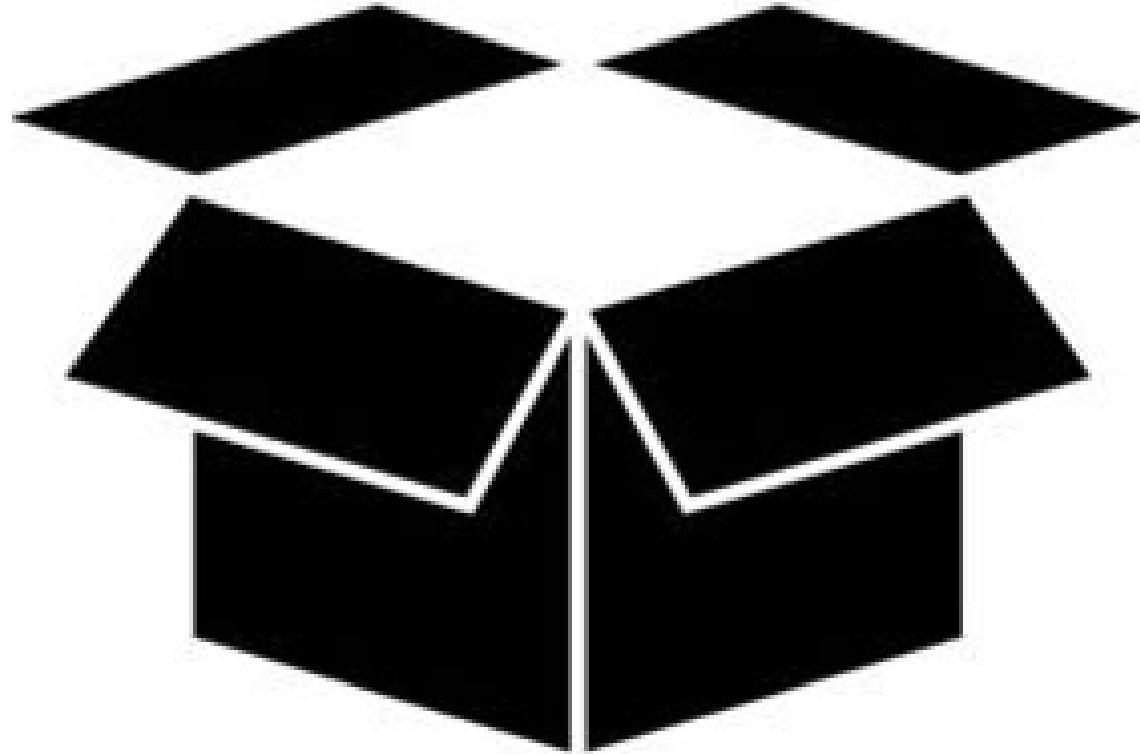
## Tertiary Center OB-RRT Members:





Comprise the Team

**Rural Emergency Department OB-RRT Members:**



## Comprise the Team

**ED Provider:** Responsible for assessing the patient, stabilizing her condition, and providing initial treatment

**RN:** Responsible for providing the necessary care to the patient. They will assist the provider with initial assessment and provide support during the delivery, including monitoring vital signs, administering medications, and assisting with emergency procedures

**Other Nursing Staff:** May include a nursing supervisor, an ICU charge nurse, or other nurse that can mobilize from another area of the hospital

**Respiratory Therapist:** Assist with administration of O<sub>2</sub>, airway management, respiratory support

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**Blood bank** activation, if available

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**Blood bank** activation, if available

**Pharmacy** notification for rapid delivery of necessary medications

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**Pharmacy** notification for rapid delivery of necessary medications

**Clerical staff** for registration/transfer processes

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**Blood bank** activation, if available



**Pharmacy** notification for rapid delivery of necessary medications



**Clerical staff** for registration/transfer processes



**Transfer center** for arranging transport, mobilizing EMS

**Telemedicine or Remote Consult** for help with assessment and stabilization



Create a Protocol of  
Care to be Delivered

Overall, a rural emergency response OB protocol should prioritize

- Activation of the OB-RRT
- Assessment and stabilization of the patient(s)
- Efficient Activation of Emergency Services/Transportation
- Effective Communication of Team Members

## Create a Protocol of Care to be Delivered

### Activation of the OB-RRT

- Create a protocol outlining the criteria for activating the OB-RRT
  - Activation criteria
  - Who can activate the team
  - How the team is activated

## Create a Protocol of Care to be Delivered

### Activation of the OB-RRT

- Create a protocol outlining the criteria for activating the OB-RRT
  - **Activation criteria- designate criteria and describe the process for that define activation of the rapid response team**
    - Defined emergent clinical events: existing activation criteria may include fetal distress, prolonged fetal bradycardia, umbilical cord prolapse, absent FHTs, vaginal bleeding, uterine rupture, emergent delivery, maternal resp distress, and maternal cardiac arrest
    - Triggers- may include agitation, pain, or changes in vital signs
      - Example of this is MEOWS Modified Early Obstetric Warning System
    - Acute situations in which a caregiver believes immediate evaluation/intervention is needed to avoid fetal/maternal harm

Create a Protocol of  
Care to be Delivered

Activation of the OB-RRT

- Create a protocol outlining the criteria for activating the OB-RRT
  - **Who can activate the team**
    - ACOG encourages institutions to give all regular team members authority to activate the team with a critical event or criteria are noted

## Create a Protocol of Care to be Delivered

### Activation of the OB-RRT

- Create a protocol outlining the criteria for activating the OB-RRT
  - **How the team is activated**
    - May utilize hospital operator or paging system
    - Clinical studies show that the single call system was the most rapid way to bring multidisciplinary providers to a patient who needed care urgently and resulted in decreased errors and improved outcomes.
      - This allows the bedside providers to focus on immediate crisis care of the patient rather than making multiple sequential phone calls
    - Ramp down approach: activate all members and then call off unneeded members
    - Ramp up approach: activate a smaller responding team that rapidly assesses and has a process to summon additional personnel with skills below if needed

## Create a Protocol of Care to be Delivered

- Assessment and stabilization
  - In the case of obstetric emergencies, this may involve assessing the mother's vital signs, checking the fetal heart rate, and stabilizing any immediate complications such as bleeding or breathing difficulties
  - Develop protocols for the team to follow in specific obstetrical emergency situations:
    - Procedures for handling complicated deliveries
    - Pre-eclampsia/Eclampsia
    - Neonatal resuscitation
    - Postpartum hemorrhage
  - Ensure equipment and supplies are available
    - The OB-RRT should have access to all necessary equipment and supplies to manage obstetric emergencies and should know exactly where to find them

## Create a Protocol of Care to be Delivered

- Collaborate with other healthcare providers:
  - Telemedicine resources
  - Rural obstetric referral networks and partnerships with hospitals that provide obstetric care
- Efficient Activation of Emergency Services
  - May involve collaborating with local transport services, including local ambulance service, helicopter rescue team, a specialized neonatal response team, or other emergency services
- Transportation
  - Protocol should include clear guidelines for transport, including which vehicles or modes of transport are appropriate and how to manage the patient during transport

**Have pre-existing agreements in place to delineate ongoing care and transfer processes**

Create a Protocol of  
Care to be Delivered

**Make sure all team members are familiar with protocols and comfortable following them**

- Have protocols easily referenceable and facilitate team access to information
- Establishing order sets specific to your institution may help provide consistency and streamline ordering specific labs or imaging available and specific drugs on formulary with desired dosage
- The Iowa Statewide Obstetric Mobile Simulation Program (Forman and Henkle) encourages facilities to create an OB Resource Binder with content from their didactic sessions as well as add their own guidelines, protocols, and checklists
  - ACOG encourages unit checklists, as they have shown decreased morbidity and mortality with appropriate utilization and refinement



Create a Protocol of  
Care to be Delivered

- Effective Communication

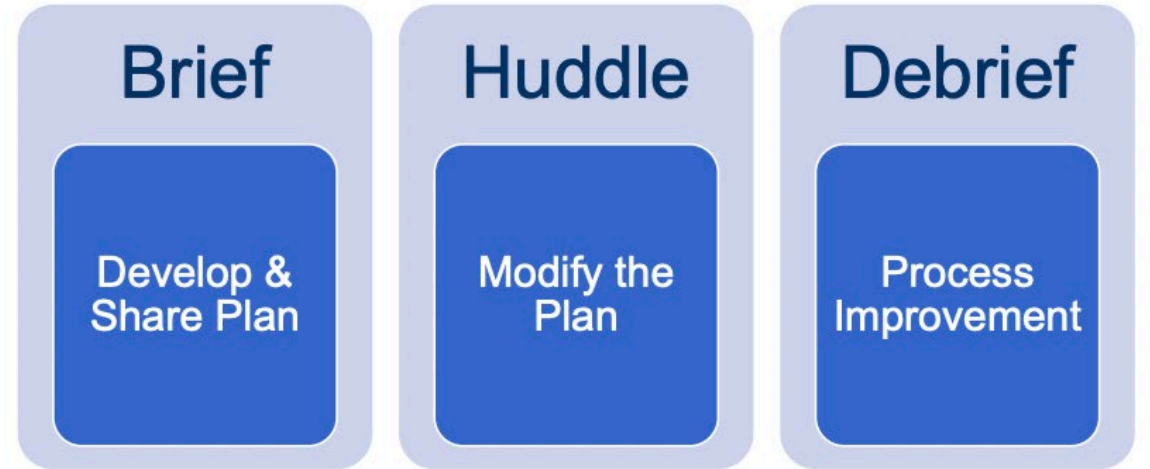
Poor communication between team responders was the number one root cause identified in the JCAHO Sentinel Event Alert, “Preventing Infant Death and Injury During Delivery.”

## Create a Protocol of Care to be Delivered

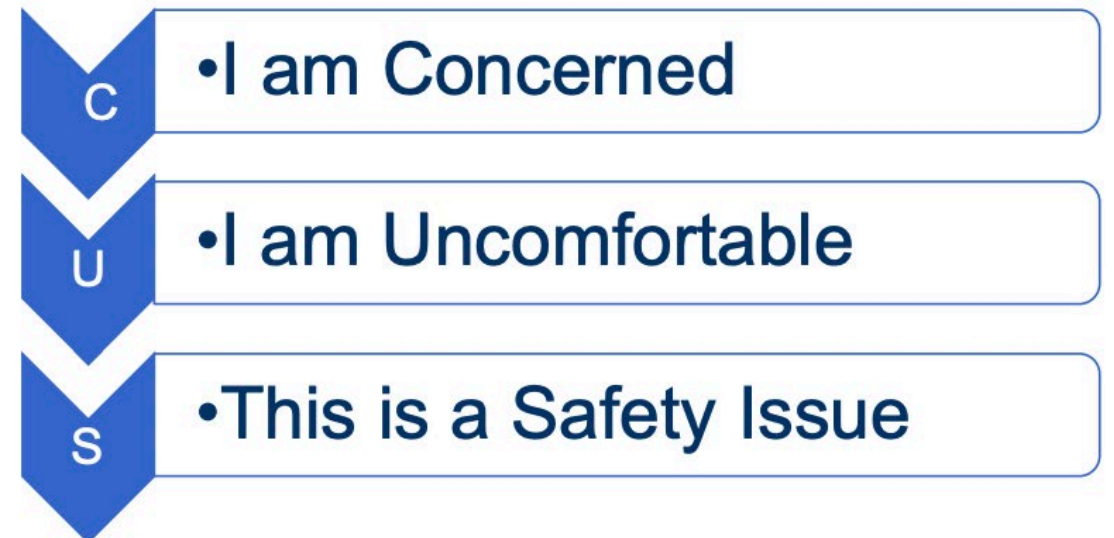
- Effective Communication
  - Ensure there are clear communication channels established for the team. Have a designated communication plan in place that outlines who needs to be notified, what communication channels will be used (eg, phone, pager, in-person), and what information needs to be communicated
  - As team responders arrive, ACOG recommends using communication tools such as SBAR to facilitate interdisciplinary communication by briefing members about the patient at nearly the same time
  - Role clarity- Ensure that all team members understand their roles and responsibilities during an obstetrics rapid response. This includes ensuring that each team member is aware of their specific tasks, who they report to, and how they will be working together to achieve their goals
  - Regular interdisciplinary training and simulation exercises to identify any communication gaps

# Team Communication Strategies





Team Introductions  
Brief  
Huddle  
Speak Up for Safety  
Debrief



Create a Protocol of  
Care to be Delivered

According to Committee Opinion No. 590: Preparing for Clinical Emergencies in Obstetrics and Gynecology, “A protocol with standardized interventions and onsite drills will improve the care given in an emergency. The exact nature of the protocol will vary widely depending on the work environment and resources available. Prompt recognition of and response to critical clinical scenarios, teamwork, and training enhance patient safety and mitigate the severity of adverse outcomes.”

## Train Team Members

- Train staff to recognize triggers that warrant activation of the team and the steps that need to be taken
  - Triage decision aids may decrease under-triage rates of pregnant and postpartum patients, improve prioritization of care, and identify patients in need of OB rapid response team activation
  - Adding obstetric rapid response criteria and emergency preparedness resources info to the back of employee badge allows for quick access to information and processes for activation of the OB-RRT
  - California Maternal Quality Care Collaborative Toolkits include a poster for EDs to post in rooms as a visual reminder for both patients and staff to consider pregnancy status for all patients

## Train Team Members

- Train team members in their respective roles and responsibilities
  - Simulation training
    - Considered the backbone of maintaining systemic responses and educating new providers about the rapid response system
    - Training teams can develop a coordinated approach and communication skills required for the situations that an OB-RRT will encounter
  - Departmental drills
  - Skills competencies
  - Didactics
  - Routine continuing education courses including but not limited to ALSO, CALS

**Conduct regular training/drills to ensure that the team remains prepared for emergencies**

## Monitor and Evaluate

### **Monitor the team's performance and evaluate effectiveness of the protocols and procedures**

- Establish debriefing with feedback and process improvement
- Review data on the number of activations, response times, and outcomes of the activations
  - Institutions initiating an obstetric-specific crisis response might consider collecting data on the following: event rate, event location, reason for the call, services provided by the team, time and duration of initial call, team arrival, and end of resuscitation, maternal and fetal clinical characteristics, maternal and fetal/neonatal outcomes, and patient events for which the team should have been called
- Reevaluate effectiveness
  - Outcome measures may help assess the impact of an OB-RRT



# Barriers to Implementation of the OB-RRT

- Callers and responders express initial resistance at onset of initiation
  - Concern from caller that responders may criticize the caller
  - Need broad all-party agreement and reinforcement of the concept that nurses and any other caregiver could initiate an activation, and responders must not criticize the caller for summoning the team to help a patient
  - Validation of the concept that any clinical deterioration should be grounds for activating the team
- Concern that activation diverts patient care resources from lower acuity to higher acuity patients, raising the concern that the crisis response abandons lower acuity patients
  - Feedback from prior studies suggests that total time of team member involvement after activation was less than 20 minutes
  - Reinforces need to communicate clearly when ramp down is applicable
  - May consider Ramp Up approach in activation during specific circumstances
- Staff concern that activation would scare patients
  - Feedback from prior studies suggests that patients and their families perceive the crisis team response as evidence of high quality emergency care

**“Successful implementation of an Obstetric Rapid Response Team may involve overcoming logistic, political, social, financial, or anthropogenic barriers. Leadership from senior medical and nursing personnel is crucial.”**  
**-ACOG Committee Opinion No 590**

# Innovations



The University of Arkansas for Medical Services Institute for Digital Health and Innovation High-Risk Pregnancy Program provides access to a call center that is open 24 hours a day, 7 days a week, and provides clinician education, among other things.

#### The call center

- provides remote consults to clinicians throughout most of the state and triage services for obstetrics patients as well.
- is staffed by highly trained, experienced nurses with backgrounds in obstetric care.

Additionally, the program provides monthly interactive videoconferences with educational information on updates and current practices to implement maternal safety bundles throughout the state.

Source: GAO interview with the Institute of Digital Health and Innovation's High Risk Pregnancy Program officials and review of relevant documentation (information); A Stockphoto/stock.adobe.com (photo). | GAO-23-105515

# Rural OB Access and Maternal Services Network

## ROAMS Network includes:

- Holy Cross Hospital
- First Steps Home Visiting program in Taos
- Presbyterian Medical Services/Questa Health Center
- Miners Colfax Medical Center in Raton
- Union County General Hospital in Clayton
- State Medicaid
- Envision/UNM Health Science/Department of Pediatrics

## Social Service partners include:

- ROAMS Family Navigation in Taos, Colfax, and Union County
- Youth Empowerment Services in Raton
- The Children's Workshop that serves clients in Taos, Colfax, Union, Mora, and Harding County
- Taos Center for Breastfeeding and Lactation Consultant in Raton
- Krossroads that serves clients in Taos, Colfax, Union, and Mora county





The Texas Rural Maternity and Obstetrics Management Strategies Program is similar to a hub-and-spoke model.

- The goal of the program is to improve maternal outcomes and increase local facilities' ability to care for high-risk patients in the community.
- University Health in San Antonio serves as the hub. The regional hospitals and clinics, including Uvalde Memorial Hospital and Val Verde Regional Medical Center, serve as the spokes in the service areas in Texas.
- The hub receives advanced specialty referrals from the spokes and also supports capacity building efforts at the facilities serving as spokes.

The Bootheel Perinatal Network uses a community-oriented model in which all providers in this network share patient referrals and provide one another support and expertise.

- Saint Francis Medical Center leads the large network.
- Other network partners include a regional hospital system (Missouri Delta Medical Center) and a federally qualified health center network (SEMO Health Network), among others.

Source: GAO interviews with the Texas Rural Maternity and Obstetrics Management Program and Bootheel Perinatal Network and review of relevant documentation (information); SeanPavonePhoto/stock.adobe.com (photo). | GAO-23-105515

# Bootheel Perinatal Network Partners

The RMOMS partnership in Missouri's Bootheel region builds on a longstanding effort to reduce infant mortality rates, which are among the highest in the state.

## Lead:

- St. Francis Health Care

## Hospitals:

- SoutheastHEALTH
- SoutheastHEALTH Dexter
- Missouri Delta Medical Center

## Perinatal Center:

- SSM Health (telehealth)

## County Health Departments:

- Bootheel Network for Health Improvement  
(6 County Health Departments)

## Workforce Development:

- Southeast Missouri State University
- Bootheel Babies and Families

## FQHC:

- SEMO Health Network

## State Medicaid:

- MOHEALTHNET

## Behavioral Health:

- Bootheel Counseling Services
- FCC Behavioral Health
- Gibson Recovery Center

## HRSA Funded Programs:

- Bootheel Health Start (MBRC)
- Building Blocks/Nurse-Family Partnership



“Even if a community is not planning on providing maternity care, they still are going to be providing maternity care, but they won’t be ready for obstetrical emergencies.”

**John Cullen, M.D.**

Family physician in Valdez, Alaska

# Conclusion

There exists an unmet need for increased training of rural emergency clinicians and staff with continuing education, skills competencies, telemed resources, and rural obstetric referral networks



Creating an obstetric response team in rural emergency departments can be a challenging but essential task to improve maternal and fetal morbidity and mortality

# Questions / Comments







# What skills does the team need to have?


# What other resources exist (or should exist) to help?


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