TeamBirth: Process Innovation for Clinical Safety, Effective Communication, and Dignity in Childbirth

OPQIC - TeamBirth Informational Webinar, April 2022
Session Agenda

1. What is Ariadne Labs?
2. What is TeamBirth?
3. TeamBirth Research
4. Why now?
5. What will TeamBirth look like for you?
6. Next Steps & Questions
What is Ariadne Labs?
Our vision is for health systems to deliver the best possible care for every patient, everywhere, every time.
Our vision is a world in which every person can choose to grow their family with dignity.
MEET THE DDI TEAM

Amber Weiseth, DNP, MSN, RNC-OB: Director

Jonathan Wolinsky, MPP: Assistant Director

Misha Severson, RN: Implementation Specialist

Trisha Short, RN: Implementation Specialist

Rose Molina, MD, MPH: Associate Faculty

Neel Shah, MD, MPP: Senior Advisor

Yara Altaher, MPH: Research Specialist

Amani Bright: Project Coordinator

Alea Challenger: Research Assistant

Aizpea Murphy: Research Assistant

Lynn El Chaer, MPH: Research Assistant
Over the past generation, giving birth in America has become less TRUSTWORTHY

U.S. women have the highest rate of maternal mortality among high-income countries, and this rate is rising. These women are also more likely to experience severe maternal morbidity.

Black women experience 3-4x higher mortality.

Two-thirds of pregnancy-related deaths may be preventable.

In a national survey, almost 1/3 of women who gave birth in a hospital reported experiencing one or more types of mistreatment, such as loss of autonomy or receiving no response to requests for help.

Mistreatment is experienced more frequently by women of color and among those with social, economic or health challenges.

80-90% of reported sentinel events are due to failures of communication and teamwork.

Source: Center for Disease Control, Giving Voices to Mothers Study-US, The Joint Commission
What is TeamBirth?
TeamBirth Purpose

TeamBirth is a care process innovation involving a series of team huddles between the patient and those caring for her, **designed to empower each team member to contribute information, reliably structure communication, and help the team arrive at shared plans together.**

- For patients, TeamBirth invites them into the conversations and provides a structure that is easy to understand and participate in.
- For clinicians, TeamBirth encourages all conversations to be had with the patient to promote effective team communication and alignment across the full team.
TeamBirth Principles

**Simplicity:** Reliably communicating information across the full care team, including the birthing person

**Teamwork:** Promoting psychological safety and shared decision-making with the birthing person
**TeamBirth** is creating the new **industry-standard process** for a safe and dignified child birth, and provides the **essential tools** to implement it.

**Structured Team Huddles**
TeamBirth uses **standardized team meetings** that occur throughout the care for all laboring patients.

**Seamless Communication**
TeamBirth uses simple tools (e.g., dry erase board) to **reliably share core information**. This includes names, the birthing person’s preferences, care plans, and expectations for the next huddle.

**Implementation Tools**
TeamBirth provides the tools necessary to successfully implement its care process. These include **coaching & feedback**, **data collection & analytics**, and **innovative measurements of patient experience**.

**Better Child Birth Outcomes**
TeamBirth leads to improved patient and clinician experience, better healthcare quality, and lower costs of care.
TeamBirth Huddles

**WHO**
The full direct care team, including the person in labor and their support

**WHAT**
Discuss preferences; care plans for mom, baby, and labor progress; and expectations for the next huddle

**WHEN**
At admission, decision points or changes in the plan of care, or request of any team member

**WHY**
Give all team members the opportunity to participate in shared decision-making
TeamBirth Components
# Labor and Delivery Planning Board

<table>
<thead>
<tr>
<th>TEAM</th>
<th>PLAN</th>
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<tbody>
<tr>
<td></td>
<td>Mom:</td>
</tr>
<tr>
<td></td>
<td>Baby:</td>
</tr>
<tr>
<td>PREFERENCES</td>
<td>Labor Progress:</td>
</tr>
<tr>
<td></td>
<td>NEXT ASSESSMENT</td>
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- EARLY LABOR
- ACTIVE LABOR
- PUSHING
Discussion and Support Guides

Admission Discussion Guide
Discuss the best next steps with your support person, your nurse, and your provider based on how you are doing, how your baby is doing, and how your labor is progressing.

- If you are in Early labor*
- If you are in Active labor*
- You may benefit from
  - Comfort
  - Control of your environment
- You may benefit from
  - Being active
  - Monitoring
  - Staying close to hospital
- Home
- Near the Hospital
- Labor & Delivery

DISCUSS WITH YOUR TEAM
- How am I doing?
- How is my baby doing?
- Where am I in labor?
- You can do more comfortably?
- What are your options for labor support?

Labor Support Guide
Use this guide to identify, discuss, and select options for labor support with your team.

- Movement: Change positions, walk, or move
- Breathing: Take deep breaths or use relaxation methods
- Thematic Touch: Massages, stroking, or cuddling
- Temperature: Apply heat or cool with water or packs
- Environment: Set lights, smells, or sounds to create a comforting space
- Drink: Have water, chips, water, juice, or other drink

Treat medical condition
- Reposition: Lay on your side
- Monitoring: Change monitoring method
- Re-energy: Use it to energize you
- Medications: Change or stop medications for your contractions
- Deliver: Assist vaginal delivery or perform C-section

Assisted Delivery Discussion Guide
Use this guide to talk about assisted vaginal delivery or C-section. Assisted delivery may be appropriate if your condition meets these criteria, but discuss with your team what is best for you and your baby (see Labor Support Guide for options).

- What are your reasons for considering assisted delivery?
- What are the MINIMUM conditions for assisted delivery?
- You believe that operative delivery is the best option for you after discussion with your care team
- On-going slow heart rate OR
- Far away from delivery with either:
- Repeated slow downs in heart rate that do not improve with support
- High heart rate that does not improve with support
- Early (6 cm or less) for 24 hours or more
- Medications to support contractions and waters broken for 13 hours or more
- No cervical change with waters broken and 6 cm or more dilated with either:
- Good contractions for 4 hours or more
- Medications to support contractions for 6 hours or more
- Prolonged pushing without progress
- Pushing for at least 3 hours if this is your first labor
- Pushing for at least 2 hours if you have labored before
Features and Expected Outcomes

**TeamBirth Solution**

**CORE**
- Huddles & Shared Planning Board
  - Elevate Patient Dignity
  - Mitigate Implicit Bias
  - Improve Unit Culture

**ADD ON**
- Decision Aids
  - Reduce Unnecessary C-Sections
  - Minimize Preventable Morbidities
TeamBirth Research
In 2018-2019, we conducted a pilot trial to test the acceptability, feasibility, and safety of TeamBirth in four community hospitals. This test design followed the model of a Phase I clinical trial where we test “tolerance” of TeamBirth before a larger-scale effectiveness trial.
Pilot Trial Results

**Patients**

- Had their **desired role** in the birthing experience: 97%
- Reported **clear communication** with providers and ability to share care preferences: 98%
- Felt their **preferences made a difference** in their care: 90%

**Clinicians**

- Felt TeamBirth **improved care for their patients** through better communication, teamwork, and shared decision-making: 93%
- Would recommend TeamBirth to another L&D Unit: 90%
- Clarified **C-section decision-making** in non-urgent clinical situation: 84%
TeamBirth Publications

1. TeamBirth Design (July 2021)

The design of “TeamBirth”: A care process to improve communication and teamwork during labor

Reena Aggarwal MRCDG, MBBChr, MSc, BPharm, Avery Plough MPH, Natalie Heinrich PhD, MPH, Grace Galvin MPH, Amber Rucker BA, Chris Barnes BA, William Berry MD, MFA, MPH, Tani Golen MD, Neal T. Shah MD, MPP

First published: 09 July 2021 | https://doi.org/10.1111/birt.12566 | Citations: 1

The study was conducted by the Ariadne Labs at Brigham and Women’s Hospital and the Harvard TH Chan School of Public Health, Boston, Massachusetts.

Funding Information:
The study was funded by the Peterson Center on Healthcare. The Peterson Center on Healthcare was not involved in the study design, the collection, analysis and interpretation of data, the writing of the report, or the decision to submit the article for publication.

Abstract

Background

Despite evidence that communication and teamwork are critical to patient safety, few care processes have been intentionally designed for this purpose in labor and delivery. The purpose of this project was to design an intrapartum care process that aims to improve communication and teamwork between clinicians and patients.

2. TeamBirth Primary Outcomes (March 2022)

Improving communication and teamwork during labor: A feasibility, acceptability, and safety study

Amber Wiersch DNP, MSN, RN, Avery Plough MPH, Reena Aggarwal MRCDG, MBBChr, MSc, BPharm, Grace Galvin MPH, Amber Rucker BA, Natalie Heinrich PhD, MPH

First published: 01 March 2022 | https://doi.org/10.1111/birt.12630

Clinical Trial Registration: ClinicalTrials.gov identifier: NCT03529214.

Funding Information:
This research was supported by a grant from the Peterson Center on Healthcare. The funding agency had no role in the design and conduct of the study; collection, management, analysis, and interpretation of the data; preparation; review or approval of the manuscript; and decision to submit the manuscript for publication.

Abstract

Background

TeamBirth was designed to promote best practices in shared decision making (SDM) among care teams for people giving birth. Although leading health organizations recommend SDM to address gaps in quality of care, these recommendations are not consistently implemented in labor and delivery.

3. TeamBirth Implementation (Jan 2022)

Implementation strategies within a complex environment: A qualitative study of a shared decision-making intervention during childbirth

Lauren Spiegel MPH, Avery Plough MPH, Victoria Paterson MPH, Rebecca West MPH, Amanda Jurcza MPM, Natalie Heinrich PhD, MPH, Susan Gullo RN, MS, Brett Cargill BA

First published: 07 January 2022 | https://doi.org/10.1111/birt.12611

Abstract

Background

Shared decision-making (SDM) may improve communication, teamwork, patient experience, respectful maternity care, and safety during childbirth. Despite these benefits, SDM is not widely implemented, and strategies for implementing SDM interventions are not well described. We assessed the acceptability and feasibility of TeamBirth, an SDM solution that centers the birthing person in decision-making through simple tools that structure communication among the care team. We identified and
MADM 2 Quartiles by Labor Huddle (Y/N) and Race/Ethnicity (n=271)
Why Now?
U.S. Total and NTSV Cesarean Rates, 1995-2020

2020 Final Data

Total Cesarean Delivery Rate: OK 32.1% (20th highest in US)
US 31.8%
NTSV Rate: OK 23.8% (21st lowest in US)
US 25.9%

Source: National Center for Health Statistics, CDC
Cesarean Delivery Rates Vary Tenfold Among US Hospitals

Variations in practice patterns among hospitals nationwide may be one of the driving forces behind the overuse of this procedure.

Some actions to reduce c-section rates include:

- Improving data collection and measurement of maternity care quality
- Using Medicaid policy to improve hospital management practices in labor and delivery units, such as creating audits and providing feedback for physicians
- Enhancing patient-centered decision making for maternity care through public reporting of c-section delivery rates and outcomes
- Facilitating and supporting the use of supportive birth professionals (such as doulas) during labor and delivery to provide continuous one-on-one support, which has been found to reduce c-section rates

Source: CDC WONDER Online Database, Natality public-use data, 2018
Severe Maternal Morbidity

Severe Maternal Morbidity
Aggregate Collaborative Average


1.25% 1.5% 1.75% 2% 2.25% 2.5%

Years

- Oklahoma Collaborative 25th Percentile *
- Oklahoma Collaborative 75th Percentile *
- Oklahoma Collaborative–wide (Hospital Rollup) *
- Oklahoma State–wide §
Maternal mortality: Oklahoma, 3-year rates

**Comparison between 2006-2008 and 2017-2019**

Source: Oklahoma vital statistics, 2006-2019
2019 data are provisional and subject to change
Maternal Mortality

Data Highlight:
Nationwide, Maternal Mortality is three times more common for Black and Indigenous women than White women. Oklahoma is ranked 38 (of 50) for its maternal mortality outcomes. Alaska has the best outcomes at an average of 12.4 deaths per 100,000 live births per year, and Louisiana ranks the worst at 72 deaths per 100,000 live births per year.\textsuperscript{23}
Voices from Oklahoma

“Including me and my family in communication during labor would have eliminated so many questions that I still have about what the team did or didn't do to help me."

"I would have had confidence to ask for more testing, and maybe the multiple doctors working on my case would have worked more collaboratively with me and together to get an effective plan in place."

-Members of Oklahoma Patient Partner Network
Oklahoma First Statewide Initiative

3-year Collaborative Agreement

This project is Supported by the State Maternal Health Innovation Program Grant, Maternal and Child Health Bureau, Health Resources and Services Administration, Department of Health and Human Services.
What will TeamBirth look like for you?
Session Sequence

Information Session
  Introduction to TeamBirth, April 2022

Learning Session 1
  TeamBirth Kick-off Webinar, May 2022

Learning Session 2
  Core v. Flexible & Board Adaptations, June 2022

Learning Session 3
  Engage & Coach, July 2022

Learning Session 5
  Implement, August 2022

Learning Session 6
  Launch & Sustain, September 2022

Implementation learning & Coaching Calls
  October 2022 and Ongoing
# TEAMBIRTH TIMELINE

| Prepare          | April - May | Recruit & Identify Site PI  
|                  |            | Build your implementation team  
|                  |            | Begin the IRB process  
| June             |            | Board design - Engage Marketing Team  
| June             |            | Determine postpartum survey process  

| Engage & Coach   | July - August | Administer surveys to collect baseline data  
|                  |              | Recruit Champions  
| July - August    |              | Small-scale testing and context-dependent changes to TeamBirth  
| August - September |          | Train staff & providers  

| Implement        | September - October | Launch Event |
IRB and Reliance cont.

**IRB** stands for Institutional Review Board. IRBs are peer review bodies responsible for protecting the rights and welfare of human research subjects involved in research activities as prescribed by federal regulations.

**Human Subject Protection Training**

CITI/NIH training ensures that you are qualified to oversee and conduct human subject research in an ethical manner, as well as protect the welfare and interests of study participants.

**Reliance**

Formal documentation signed between two or more institutions who are participating in human subject research. The agreement permits one or more institutions to cede review or rely on another IRB. Once finalized, the agreement allows for the IRB of record to oversee all sites participating in a multisite study.

**Research can begin**

Once IRB approval is finalized and reliance has been reached, research activities can begin at your site.
IRB Reliance Pathway

4. Who is involved?

Lead IRB
(also known as "Reviewing IRB" or "IRB of Record")
Responsible for providing IRB review for the study, just as they would without a reliance agreement - but for ALL sites that are involved.

Participating Site(s)
Agrees to cede review of study to Lead IRB, while still maintaining responsibility for local oversight.

1. IRB Approval
Whether we are the Lead IRB or a Participating Site, IRB approval is required first.

2. IAA
Next, we need the IRB Authorization Agreement (IAA). This is typically done through SMART IRB (but it doesn’t have to be).

3. Finalize

ESTR
If we are the Lead Site, we need to add our Participating sites before reliance is complete.

If we are a Participating Site, we still need to make sure everything looks good before finalizing.

A letter will be sent from ESTR when reliance is complete!
IRB Reliance Options

<table>
<thead>
<tr>
<th>Smart IRB</th>
<th>IAA</th>
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<tbody>
<tr>
<td>● Hospital (IRB administrator or research compliance personnel) creates Smart IRB Account</td>
<td>● Principal Investigator to complete local context form and IAA template form</td>
</tr>
<tr>
<td>● Create your joinder agreement</td>
<td>○ Institution sends forms back to Ariadne Labs</td>
</tr>
<tr>
<td>● Sign and submit agreement</td>
<td>● IRB reliance is finalized by Ariadne Labs on the ESTR platform</td>
</tr>
<tr>
<td>● Wait for activation</td>
<td>● Once complete, sites will receive approval documentation</td>
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</tbody>
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Major site to do’s: Create IRB account and submit reliance through smart IRB
Research Aims

1. **Primary aim**: Assess whether patients’ trust (HCRTS-R) in their care team is higher after the implementation of Team Birth, as compared to before.

2. **Secondary aim**: 
   a. Evaluate TeamBirth as a solution to improve patient autonomy in decision-making (MADM),
   b. the incorporation of patient preferences into care (Preferences Question),
   c. patient perception of being respected as a full person (Individual HCRTS-R items), and
   d. inequities in these measures (race/ethnicity).
   e. Evaluate level of exposure to TeamBirth and impact on the aforementioned variables.
By the end of 2022, TeamBirth will be implemented in 46 hospitals across the US, reaching over 130,000 births.
TeamBirth Participating Hospitals 2022

Massachusetts:
- UMass Memorial
- UMass Health Alliance
- South Shore Hospital

Washington:
- Evergreen Health
- Overlake Medical Center
- Swedish First Hill
- Swedish Edmonds
- Swedish Issaquah
- Spokane-Sacred Heart
- St. Peters Olympia
- Holy Family

Oregon:
- Providence Portland
- Providence Willamette Falls
- Providence St. Vincent's

California:
- Santa Rosa

Michigan:
- Ascension River District Hospital
- Ascension Providence Hospital
- Ascension Providence Hospital
- Hurley Medical Center
- Mercy Health Hackley
- Michigan Medicine
- ProMedica Charles and Virginia Hickman Hospital
- ProMedica Coldwater Regional Hospital
- Sparrow Hospital
- St. Mary Mercy Livonia Hospital
- St. Joseph Mercy Ann Arbor Hospital

Ohio:
- Grant Medical Center
- Miami Valley Hospital
- Miami Valley South Hospital
- Akron Hospital

New Jersey:
- RWJ Monmouth
- RWJ Cooperman Barnabas
- Virtua Voorhees

Oklahoma:
- Saint Francis Hospital (Yale Campus - Tulsa)
- Hillcrest Medical Center (Tulsa)
- OSU Medical Center (Tulsa)
- Ascension St. John Medical Center (Tulsa)
- Bailey Medical Center (Owasso)
- Hillcrest Hospital Claremore
- Hillcrest Hospital South (Tulsa)
- Mercy Hospital Oklahoma City
- Saint Francis Hospital South (Tulsa)
- Saint Francis Hospital Muskogee
- St. Mary’s Regional Medical Center (Enid)

Will YOUR hospital be added to this list?
Oklahoma Impact:
Cohort 1 Launch Events

St. Mary's Regional Medical Center- Enid, OK
Bailey Medical Center - Owasso, OK
Hillcrest South - Tulsa, OK
Hillcrest Claremore - Claremore, OK
Next Steps

- Sign the *Hospital Commitment Letter* and return by April 22, 2022
- Identify and recruit team members
- Identify IRB contacts and begin reliance process
- Attend one of the TeamBirth Kickoff Planning Sessions
  - May 3 @ 9:00 am **OR** May 6 @ 1:30 pm
    - Learning sessions scheduled for 1st Tues. @ 9:00 and 1st Fri. @ 1:30
  - [https://opqic.org/teambirth/register](https://opqic.org/teambirth/register)
Welcome to the TeamBirth Community of Practice

We are thrilled you’ve joined our virtual community of individuals and organizations who are implementing the TeamBirth solution to ensure that every birthing person receives high-quality peripartum care during every delivery encounter, every time.

We hope this site helps you reach your goal of improving care for women and newborns. Aria includes:

https://www.ariadnelabs.org/aria/
Q&A

Questions received from registrants:

• Is this team birth training for LDR only or the entire maternal child team?

• What can we expect for results of implementing TeamBirth if the doctors are not on board with it?
THANK YOU FOR ATTENDING!
Please email
barbara-obrien@ouhsc.edu
if you have any questions.

https://opqic.org

info@opqic.org

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