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
Angela Chien, MD: TeamBirth Faculty
Sam Woodbury: Systems Analyst

Yara Altaher, MPH: Research Specialist
Amani Bright: Project Coordinator
Alea Challenger: Research Assistant
Lynn El Chaer, MPH: Research Assistant
Lindsey Renner: Research Assistant
Tyler Fox: Project 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 their care team, 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 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**, 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.
The tools and processes of the TeamBirth solution embody two design principles:

**Teamwork:** Promote psychological safety and shared decision-making with the birthing person

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

And promote four core behaviors:

1. Promoting each member of the team
2. Eliciting patient preferences
3. Distinguishing plan for patient, baby, and labor progress
4. Setting clear expectations for next huddle
TeamBirth Core Components:

1. Team Huddles
2. Shared Planning Board

Components which are critical to successful delivery of the intervention'
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
A dry-erase board that is divided into quadrants - each corresponding to one of the 4 core behaviors - is used to structure the discussion during team huddles and provide a shared mental model of this information for all members of the care team.
Hospitals are supported in designing a board that meets their own needs and desires, while remaining true to the TeamBirth core components.

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<tr>
<th>ROOM#</th>
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<tr>
<td>TEAM</td>
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**PREFERENCES**

**NOTES**

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**PLAN**

_____

BABY:

PROGRESS:

**NEXT HUDDLE**

EARLY LABOR

ACTIVE LABOR

PUSHING
**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**
- **DISCUSS WITH YOUR TEAM**
  - How am I doing?
  - How is my baby doing?
  - Where am I in labor?

**If you are in Active labor**
- **DISCUSS WITH YOUR TEAM**
  - How am I doing?
  - How is my baby doing?
  - Where am I in labor?

**You may benefit from**
- Comfort
- Being active
- Staying close to hospital

**Control of your environment**
- **DISCUSS WITH YOUR TEAM**
  - What are the benefits and risks of each option?
  - What can I do to be more comfortable?

**Where can I go nearby?**
- **DISCUSS WITH YOUR TEAM**
  - What are my options for labor support?

**Labor Support Guide**

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

**What are your care goals?**

**What options can you try?**

**What options can you try with your team?**

- **Support labor**
  - Movement: Change positions, walk, or move
  - Breathing: Take deep breaths or use relaxation methods
  - Therapeutic Touch: Massage, stroking, or cuddling
  - Temperature: Apply heat or cool with water or packs
  - Environment: Use light, smells, or sounds to create a comfortable space
  - Drink: Water, chips, water, juice, or other drink
  - Other:

- **Medications:** Skirt or change medications for your condition.

- **Deliver:** Assist vaginal delivery or perform C-section.

**Treat medical condition**

- **Support labor**
  - Reposition: Lay on your side
  - Monitoring: Change monitoring method
  - Re-nutrition: Use IV or forgo IV
  - Medications: Change or stop medications for your condition
  - Deliver: Assist vaginal delivery or perform C-section
  - Other:

- **Medications:** Skirt or change medications for your condition.

**Assisted Delivery Discussion Guide**

Use this guide in team discussions 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?**

- **MOM**
  - Request: You believe that operative delivery is the best option for you after discussion with your care team

- **BABY**
  - Concerns about wellbeing: 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

- **SLOW INDUCTION**
  - Either:
    - Early (6 cm or less) for 24 hours or more
    - Medications to support contractions and waters broken for 13 hours or more

- **PROGRESS**
  - Slow progress
  - 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**
  - Either:
    - Pushing for at least 3 hours if this is your first labor
    - Pushing for at least 2 hours if you have labored before

**TEAMBIRTH**

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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.
<table>
<thead>
<tr>
<th>Patients</th>
<th>Clinicians</th>
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<tbody>
<tr>
<td>97% Had their desired role in the birthing experience</td>
<td>93% Felt TeamBirth improved care for their patients through better communication, teamwork, and shared decision-making</td>
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<tr>
<td>98% Reported clear communication with providers and ability to share care preferences</td>
<td>90% Would recommend TeamBirth to another L&amp;D Unit</td>
</tr>
<tr>
<td>90% Felt their preferences made a difference in their care</td>
<td>84% Clarified C-section decision-making in non-urgent clinical situation</td>
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1. TeamBirth Design (July 2021)

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

Reena Aggarwal MRCOG, MBBSchr, MSc, BPharm, Avery Plough MPH, Natalie Heinrich PhD, MPH, Grace Galvin MPH, Amber Rucker BA, Chris Barnes BA, William Berry MD, MFA, MPH, Tari Golen MD, Neal T. Shah MD, MPH

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 Wietschel DNP, MSN, RN, Avery Plough MPH, Reena Aggarwal MRCOG, MBBSchr, 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 Spigel MPH, Avery Plough MPH, Victoria Paterson MPH, Rebecca West MPH, Amanda Jurczak MPH, Natalie Heinrich PhD, MPH, Susan Gullo RN, MS, Brett Corrigan 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 by “Huddle” and Race/Ethnicity

Note: MADM 2 quartiles percentages may not add up to 100% due to missing data.

*Unpublished data; Analysis ran on 8/15/2022
Health Care Relationship Trust Scale Revised (HCRTS-R)

Percent of Respondents Who Said "All the Time" for Clinical Team by Experience of Labor Huddle Across All OPQIC Cohort 1 Sites (as of 08/15/22)
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

22%

Years

2.5%
2.25%
2%
1.75%
1.5%
1.25%
Maternal mortality: Oklahoma, 3-year rates

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.²³

DEFINITION
Number of deaths from any cause related to or aggravated by pregnancy or its management (excluding accidental or incidental causes) during pregnancy and childbirth or within one year of termination of pregnancy, irrespective of the duration and site of the pregnancy, per 100,000 live births (5-year estimate from 2013-2017).²³

OKLAHOMA
33.9 deaths per 100,000 women

NATIONAL AVERAGE
29.6 deaths per 100,000 women
"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
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?
Monthly Learning Sessions

Joint session with all hospitals participating in Cohort 3. Information and content driven.

Information Session
Introduction to TeamBirth, September 2022

Upcoming Learning Sessions:
➔ October 2022: TeamBirth Kick-off Planning
➔ November 2022: Core v. Flexible & Board Adaptations
➔ December 2022: Engage & Coach
➔ January 2023: Implement
➔ February 2023: Launch & Sustain
➔ March 2023 and Ongoing: Implementation

Monthly Coaching Calls

Zoom meetings between OPQIC and Ariadne teams and the implementation team at your hospital. Focus is individualized support, check-in on progress and troubleshooting.
| Prepare       | September - October | Recruit & Identify Site PI  
                             |                             | Build your implementation team  
                             |                             | Begin the IRB process  
                             | November          | Board design - Engage Marketing Team  
                             | December          | Determine postpartum survey process  
|---------------|---------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| Engage & Coach| January - February  | Administer surveys to collect baseline data  
                             |                             | Recruit Champions  
                             | Small-scale testing and context-dependent changes to TeamBirth  
                             | February - March          | Train staff & providers  
| Implement     | March               | Launch Event  
|               |                     |
Atul Gawande develops surgical safety checklist, resulting in 50% mortality reduction.

Atul Gawande founds Ariadne Labs to develop scalable solutions to improve health delivery.

Ariadne’s Delivery Decisions Initiative launches TeamBirth across four pilot health systems serving 15,000 births per year.

TeamBirth wins $2M grant from Petersen Center to design and scale TeamBirth.

2-year revenue-generating contracts developed for $560K per year to implement and research TeamBirth across three health systems.

By the end of 2022, TeamBirth will be implemented in 77 hospitals across the US, reaching over 130,000 births.
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<tr>
<th>Massachusetts:</th>
<th>Michigan:</th>
<th>Oklahoma:</th>
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<tr>
<td>● UMass Memorial</td>
<td>● Ascension River District Hospital</td>
<td>● Saint Francis Hospital (Yale Campus - Tulsa)</td>
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<td>● UMass Health Alliance</td>
<td>● Ascension Providence Hospital</td>
<td>● Hillcrest Medical Center (Tulsa)</td>
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<td>● South Shore Hospital</td>
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<td>● Massachusetts Collaborative</td>
<td>● Hurley Medical Center</td>
<td>● Ascension St. John Medical Center (Tulsa)</td>
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<td>Washington:</td>
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<td>● Bailey Medical Center (Owasso)</td>
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<td>● Evergreen Health</td>
<td>● Michigan Medicine</td>
<td>● Hillcrest Hospital Claremore</td>
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<td>● ProMedica Charles and Virginia Hickman Hospital</td>
<td>● Hillcrest Hospital South (Tulsa)</td>
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<td>● Swedish First Hill</td>
<td>● ProMedica Coldwater Regional Hospital</td>
<td>● Mercy Hospital Oklahoma City</td>
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<td>● Saint Francis Hospital Muskogee</td>
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<td>● Spokane- Sacred Heart</td>
<td>● St. Joseph Mercy Ann Arbor Hospital</td>
<td>● INTEGRIS Health Edmond</td>
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<td>● Virtua Voorhees</td>
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Will YOUR hospital be added to this list?
Oklahoma Impact:
Cohort 1 Launch Events

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

- Sign the *Hospital Commitment Letter* and return by October 3, 2022
- Identify and recruit team members
- Attend one of the TeamBirth Kickoff Planning Sessions
  - Oct. 6th @ 1:30 pm OR Oct. 7th @ 9:00 am
    - Learning sessions scheduled for 1st Thurs. @ 1:30 and 1st Fri. @ 9:00
  - [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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