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

OPQIC - TeamBirth Informational Webinar, April 2022

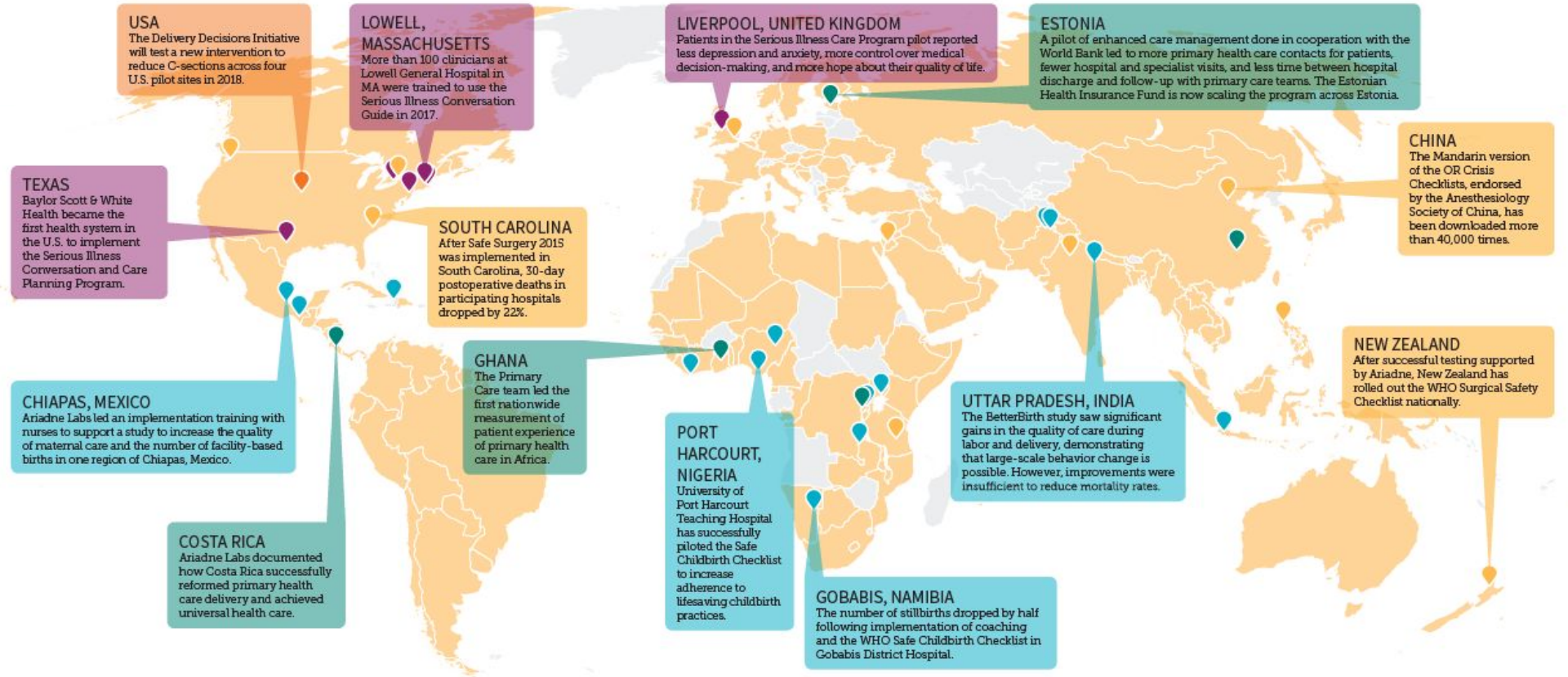
Session Agenda

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?

Ariadne Labs

Our vision is for health systems to deliver the best possible care for every patient, everywhere, every time.



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Delivery Decisions Initiative

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

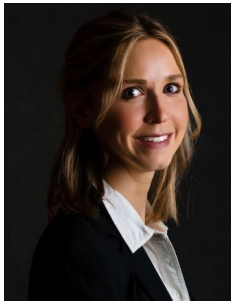
Sam Woodbury: Systems Analyst

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

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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.

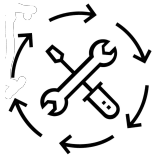
TeamBirth is creating the new **industry-standard process** for a safe and dignified child birth, and provides the **essential tools to implement it**.

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.

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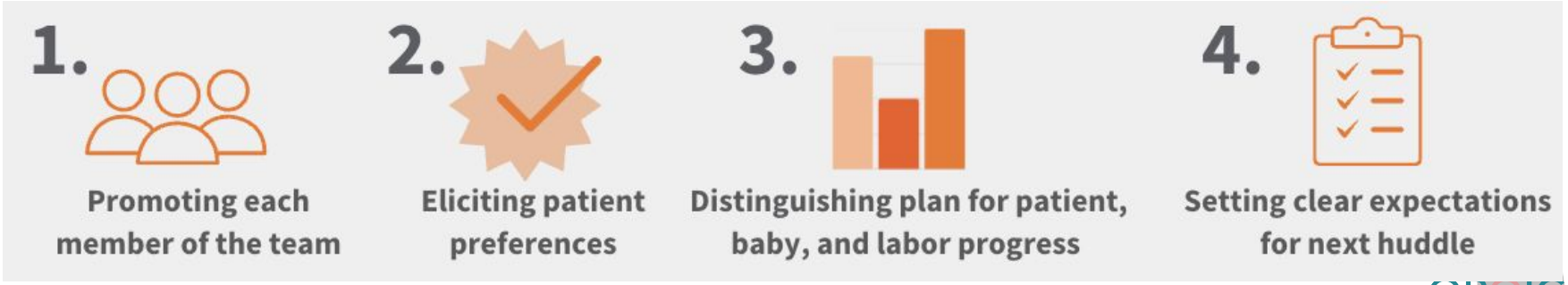
The tools and processes of the TeamBirth solution embody two design principles:

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

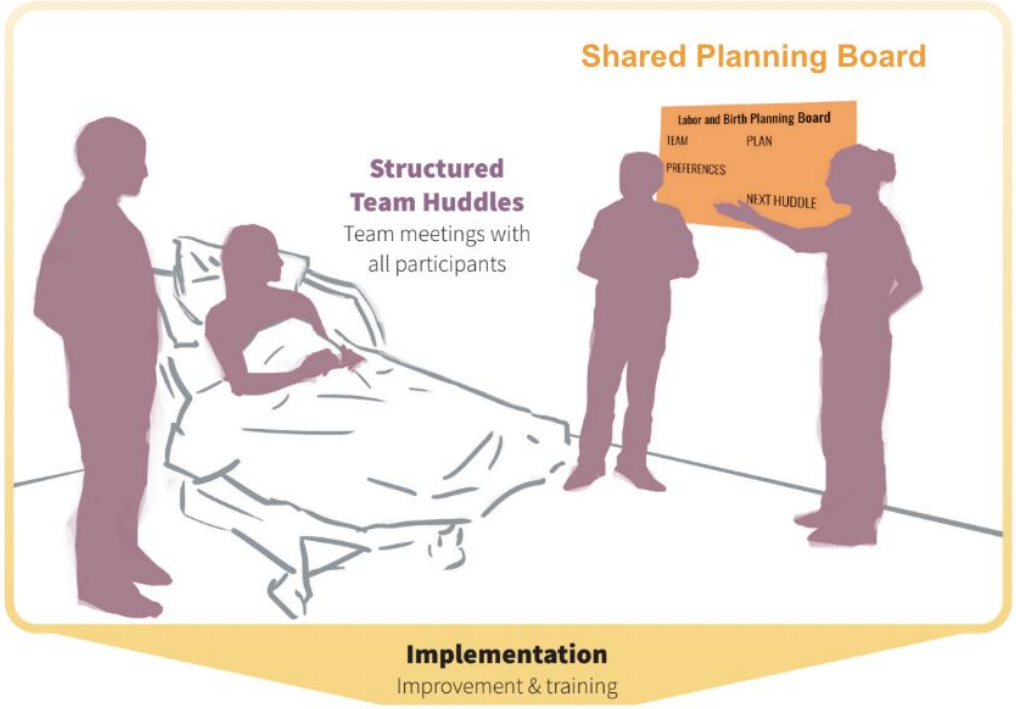
And promote four core behaviors:



TeamBirth **Core** Components:

1. Team Huddles
2. Shared Planning Board

*Components which are critical to successful delivery of the intervention**



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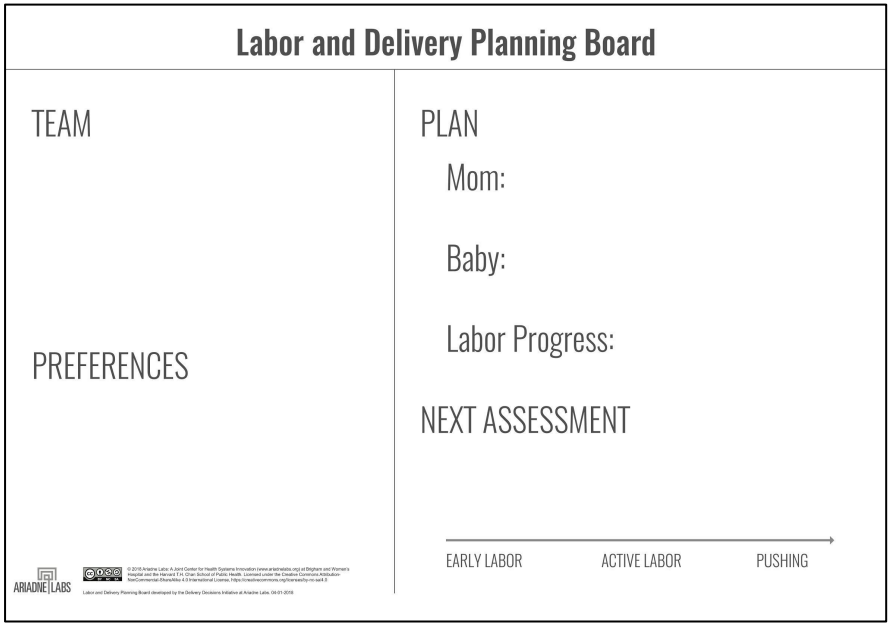
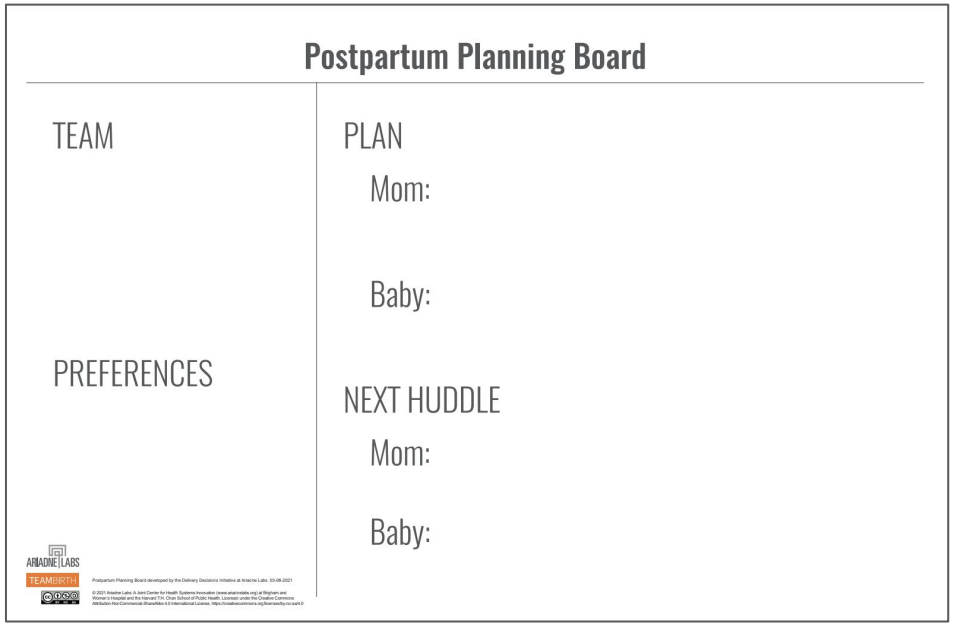
TeamBirth Huddles

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

Shared Planning Board

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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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***

or

If you are in **Active labor***

You may benefit from

Comfort

Control of your environment

Home

You may benefit from

Being active

Staying close to hospital

Near the Hospital

You may benefit from

Monitoring

Clinical care

Labor & Delivery

DISCUSS WITH YOUR TEAM

How am **I** doing?

How is my **baby** doing?

Where am I in **labor**?

DISCUSS WITH YOUR TEAM

What are the **benefits and risks** of each option?

DISCUSS WITH YOUR TEAM

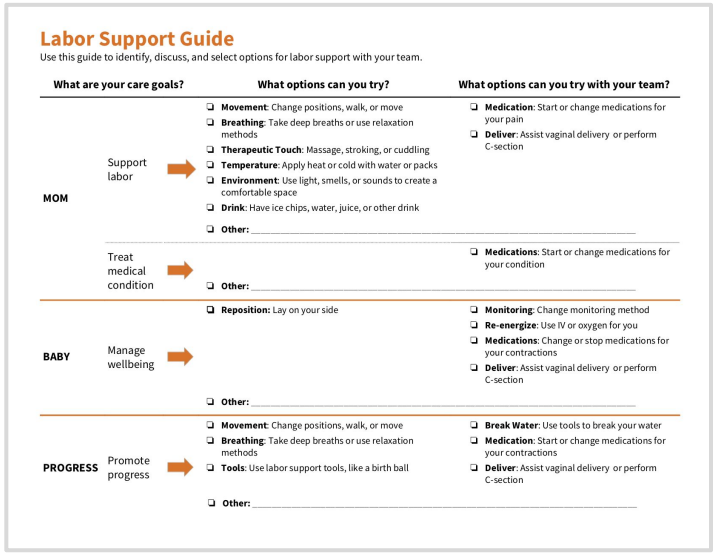
What can I do to be **more comfortable**?

Where can I go **nearby**?

What are my options for **labor support**?

* The American College of Obstetricians and Gynecologists (ACOG) defines labor as contractions that result in cervical change. Active labor typically begins at 4-6cm with accelerated cervical dilation

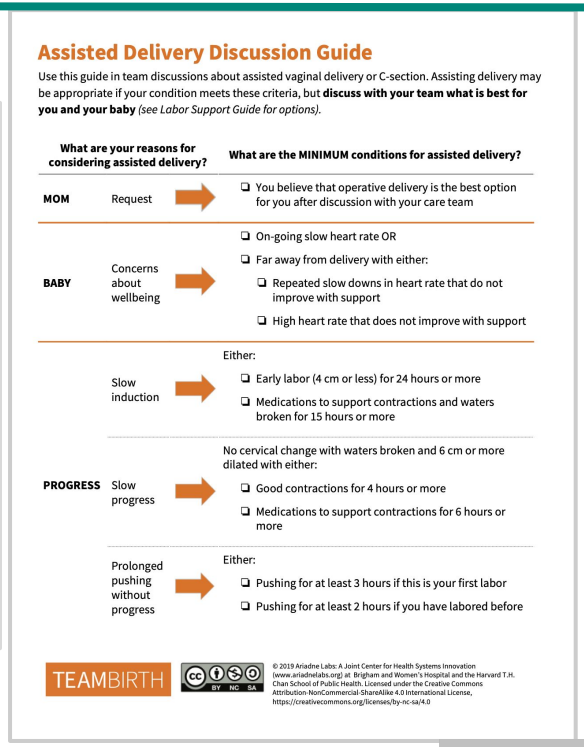
TEAMBIRTH



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?
MOM	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 cold with water or packs ❑ **Environment**: Use light, smells, or sounds to create a comfortable space ❑ **Drink**: Have ice chips, water, juice, or other drink ❑ **Other:** _____	❑ **Medication**: Start or change medications for your pain ❑ **Deliver**: Assist vaginal delivery or perform C-section
	Treat medical condition	❑ **Other:** _____	❑ **Medications**: Start or change medications for your condition
BABY	Manage wellbeing	❑ **Reposition:** Lay on your side ❑ **Other:** _____	❑ **Monitoring**: Change monitoring method ❑ **Re-energize**: Use IV or oxygen for you ❑ **Medications**: Change or stop medications for your contractions ❑ **Deliver**: Assist vaginal delivery or perform C-section
PROGRESS	Promote progress	❑ **Movement**: Change positions, walk, or move ❑ **Breathing**: Take deep breaths or use relaxation methods ❑ **Tools**: Use labor support tools, like a birth ball ❑ **Other:** _____	❑ **Break Water**: Use tools to break your water ❑ **Medication**: Start or change medications for your contractions ❑ **Deliver**: Assist vaginal delivery or perform C-section



Assisted Delivery Discussion Guide

Use this guide in team discussions about assisted vaginal delivery or C-section. Assisting 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?
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
PROGRESS	Slow induction	Either: ❑ Early labor (4 cm or less) for 24 hours or more ❑ Medications to support contractions and waters broken for 15 hours or more
	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

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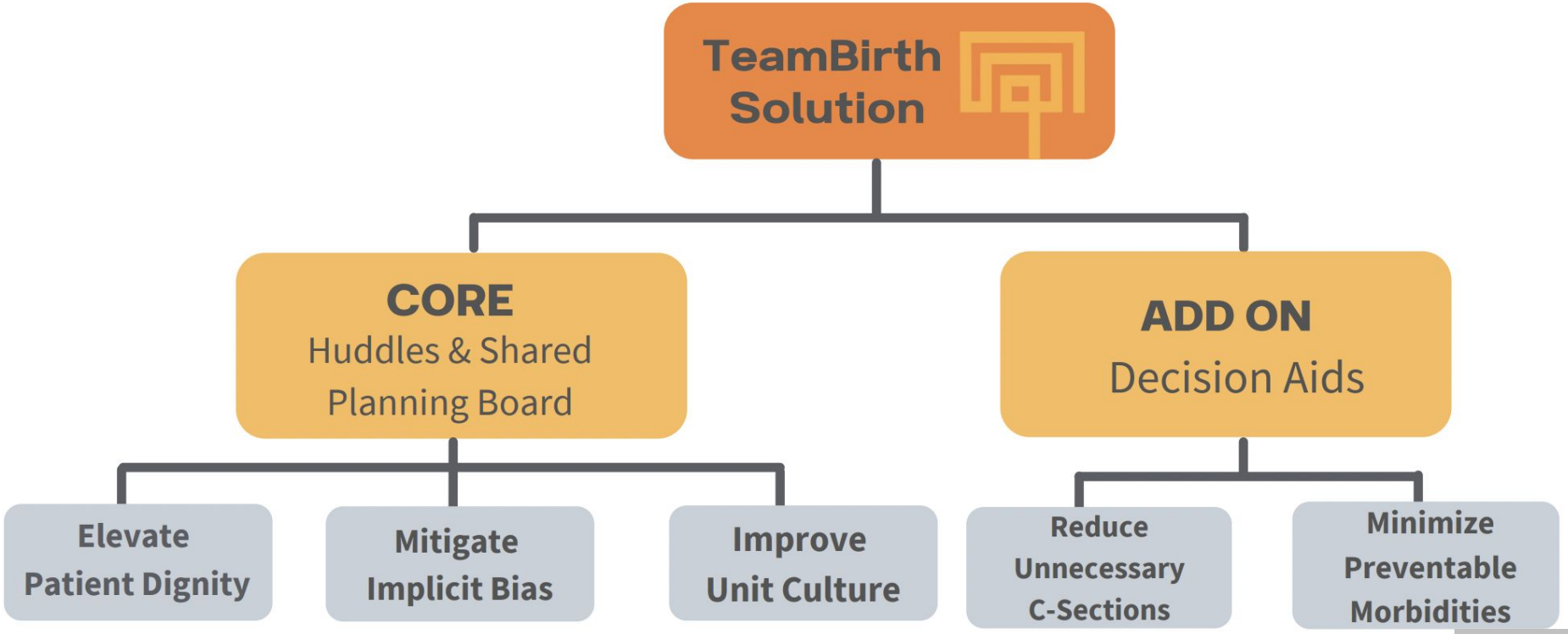
Features and Expected Outcomes



TeamBirth Research

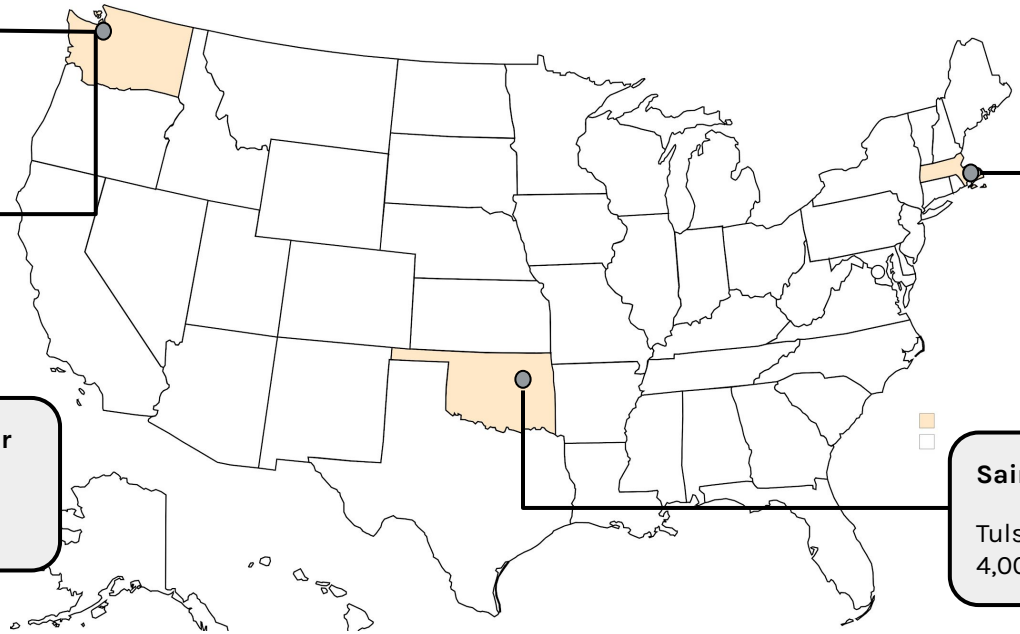
TeamBirth Pilot Trial Locations

Overlake Medical Center

Bellevue, WA
3,600 deliveries / year

EvergreenHealth Medical Center

Kirkland, WA
4,500 deliveries / year



South Shore Hospital

Boston, MA
3,400 deliveries / year

Saint Francis Hospital

Tulsa, OK
4,000 deliveries / year

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.

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Pilot Trial Results

Patients

97% Had their **desired role** in the birthing experience

98% Reported **clear communication** with providers and ability to share care preferences

90% Felt their **preferences made a difference** in their care

Clinicians

93% Felt TeamBirth **improved care for their patients** through better communication, teamwork, and shared decision-making

90% **Would recommend** TeamBirth to another L&D Unit

84% Clarified **C-section decision-making** in non-urgent clinical situation

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TeamBirth Publications

1. TeamBirth Design (July 2021)

ORIGINAL ARTICLE | Open Access

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

Reena Aggarwal MRCOG, MBBChir, MSc, BPharm, Avery Plough MPH, Natalie Henrich PhD, MPH, Grace Galvin MPH, Amber Rucker BA, Chris Barnes BA, William Berry MD, MPA, MPH, Toni Golen MD, Neel 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.

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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)

ORIGINAL ARTICLE | Open Access

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

Amber Weiseth DNP, MSN, RN, Avery Plough MPH, Reena Aggarwal MRCOG, MBBChir, MSc, BPharm, Grace Galvin MPH, Amber Rucker BA, Natalie Henrich PhD, MPH ... See all authors

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 publications.

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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)

ORIGINAL ARTICLE | Open Access

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 Henrich PhD, MPH, Susan Gullo RN, MS, Brett Corrigan BA ... See all authors

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

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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

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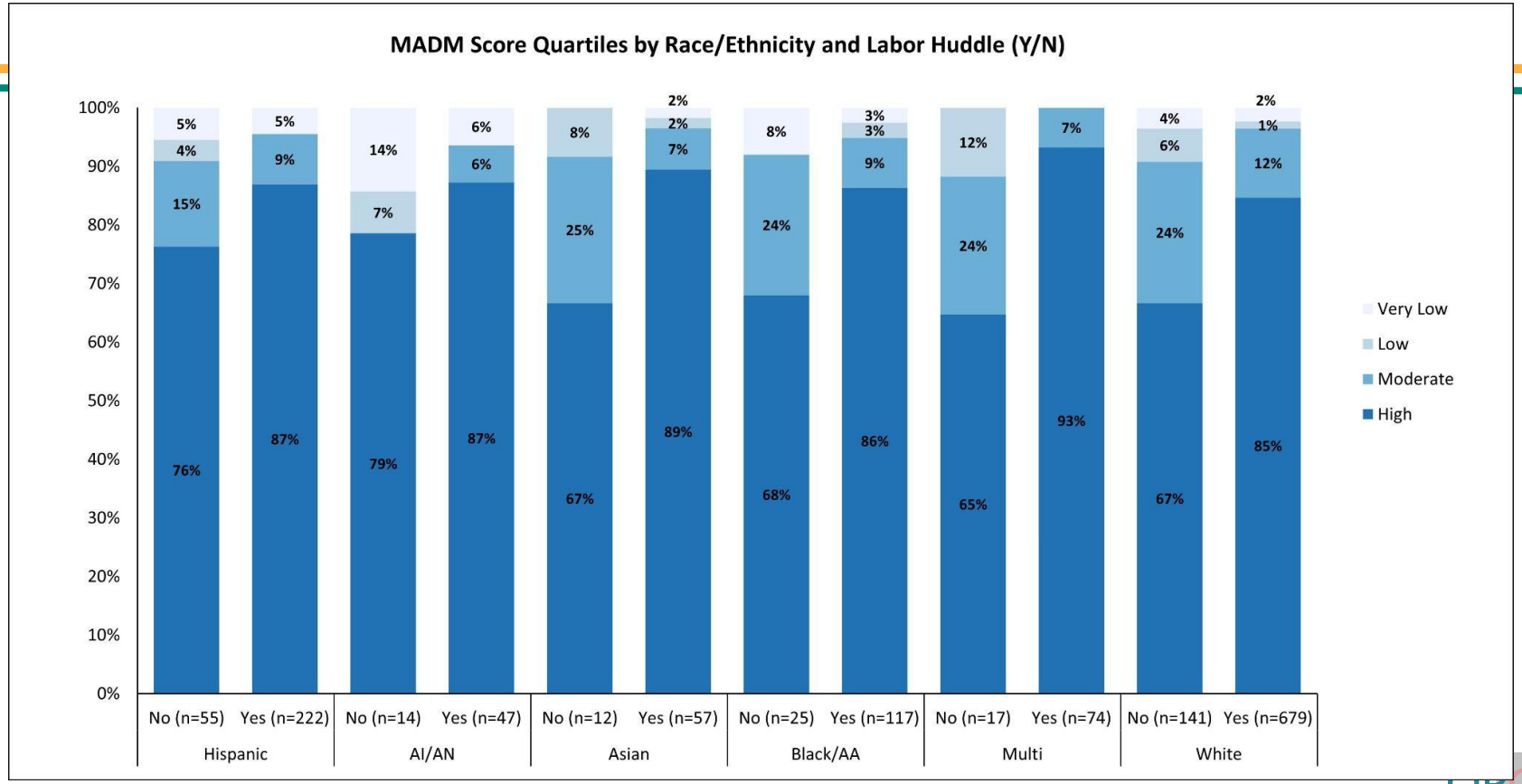
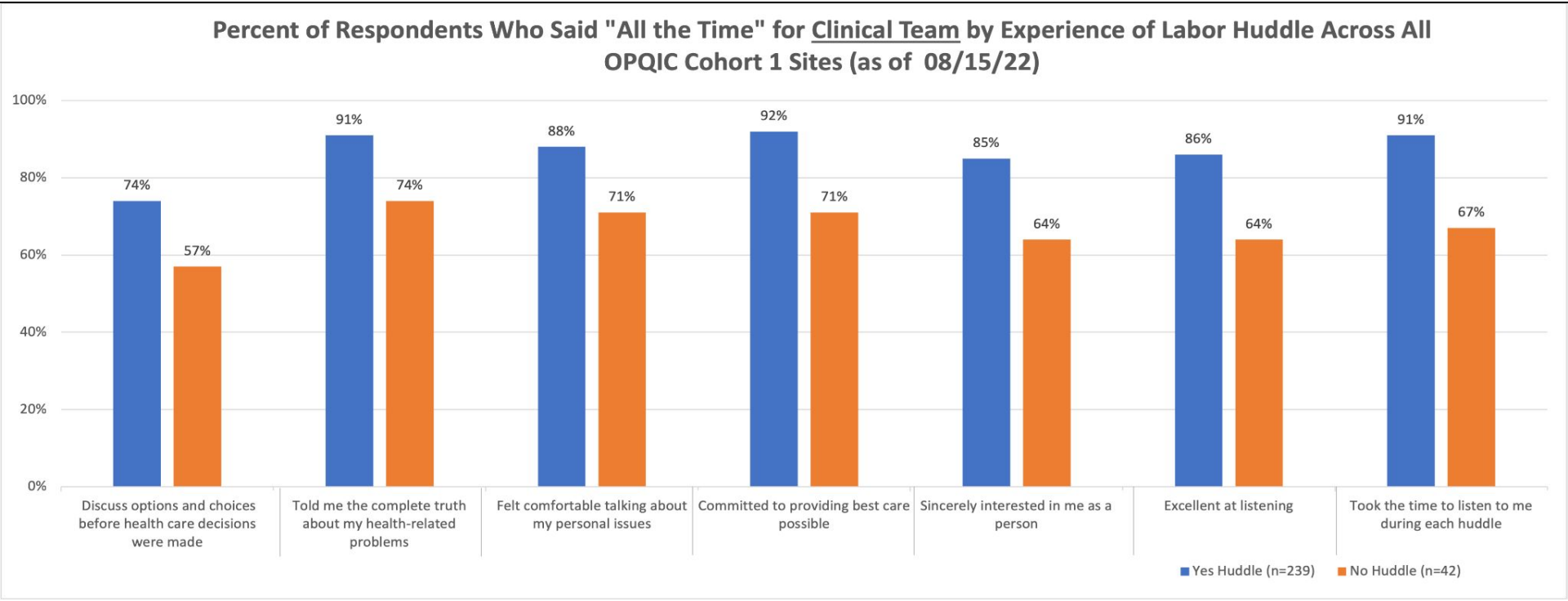
MADM by “Huddle” and Race/Ethnicity



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

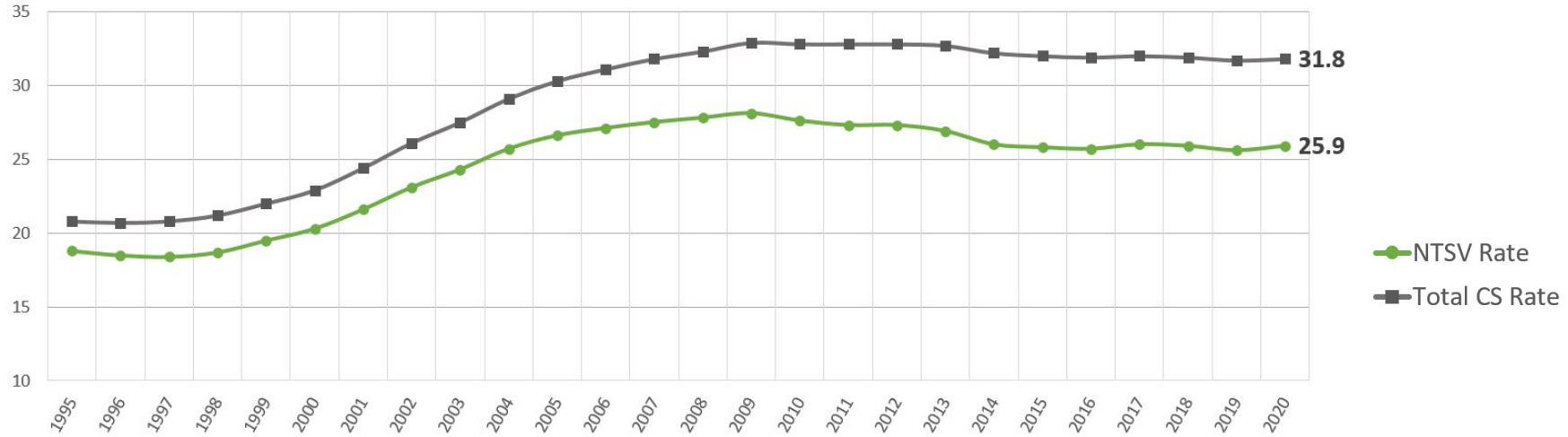
**Unpublished data; Analysis ran on 8/15/2022*

Health Care Relationship Trust Scale Revised (HCRTS-R)



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

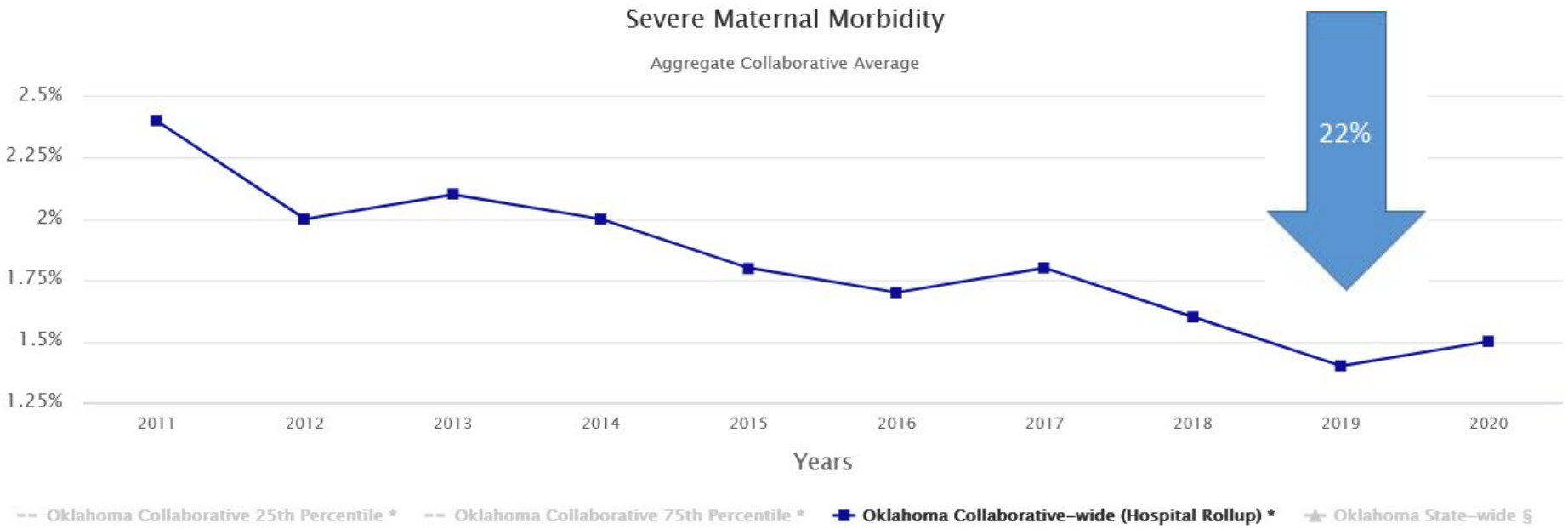
Variations in practice patterns among hospitals nationwide may be one of the driving forces behind the overuse of this procedure.

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



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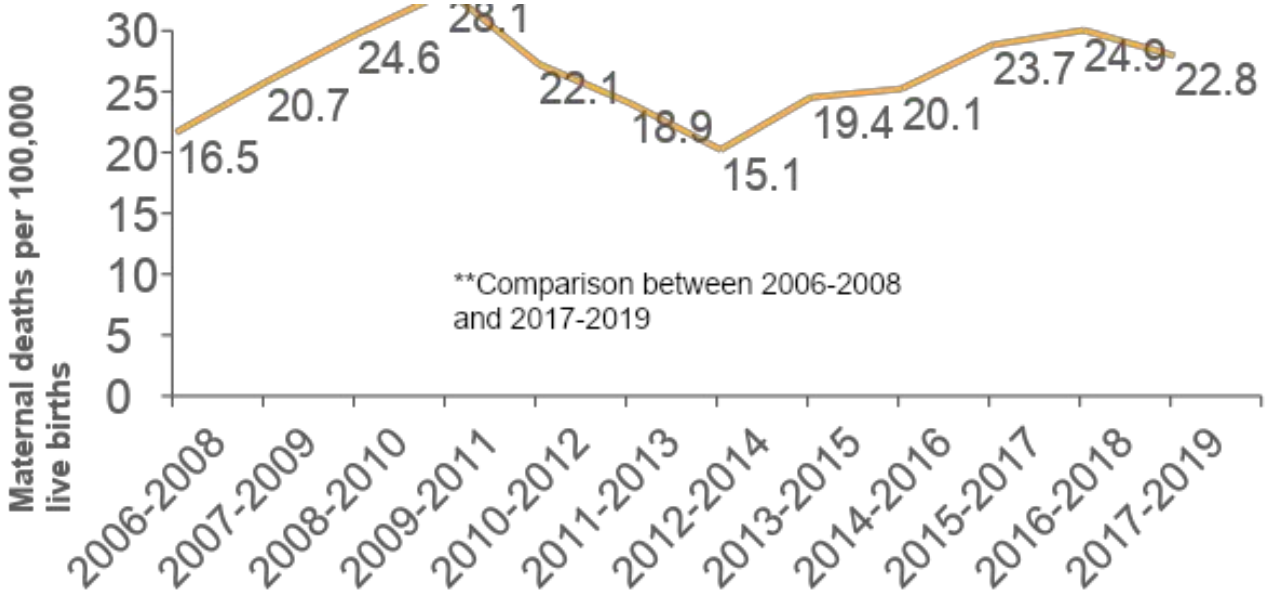
Maternal mortality: Oklahoma, 3-year rates



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

Maternal Mortality

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

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]

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

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OKLAHOMA State Department of Health

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?

Monthly Learning Sessions

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

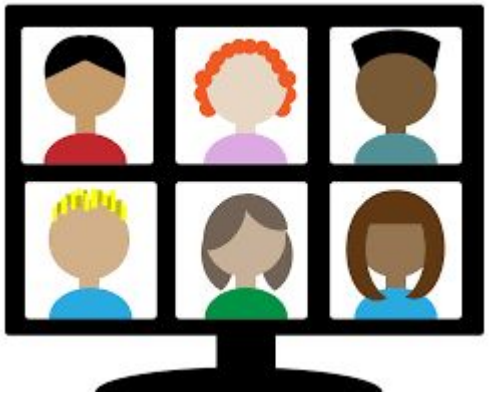
Information Session
Introduction to TeamBirth, September 2022

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.



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TEAMBIRTH TIMELINE

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
	January - February	Small-scale testing and context-dependent changes to TeamBirth
	February - March	Train staff & providers
Implement	March	Launch Event

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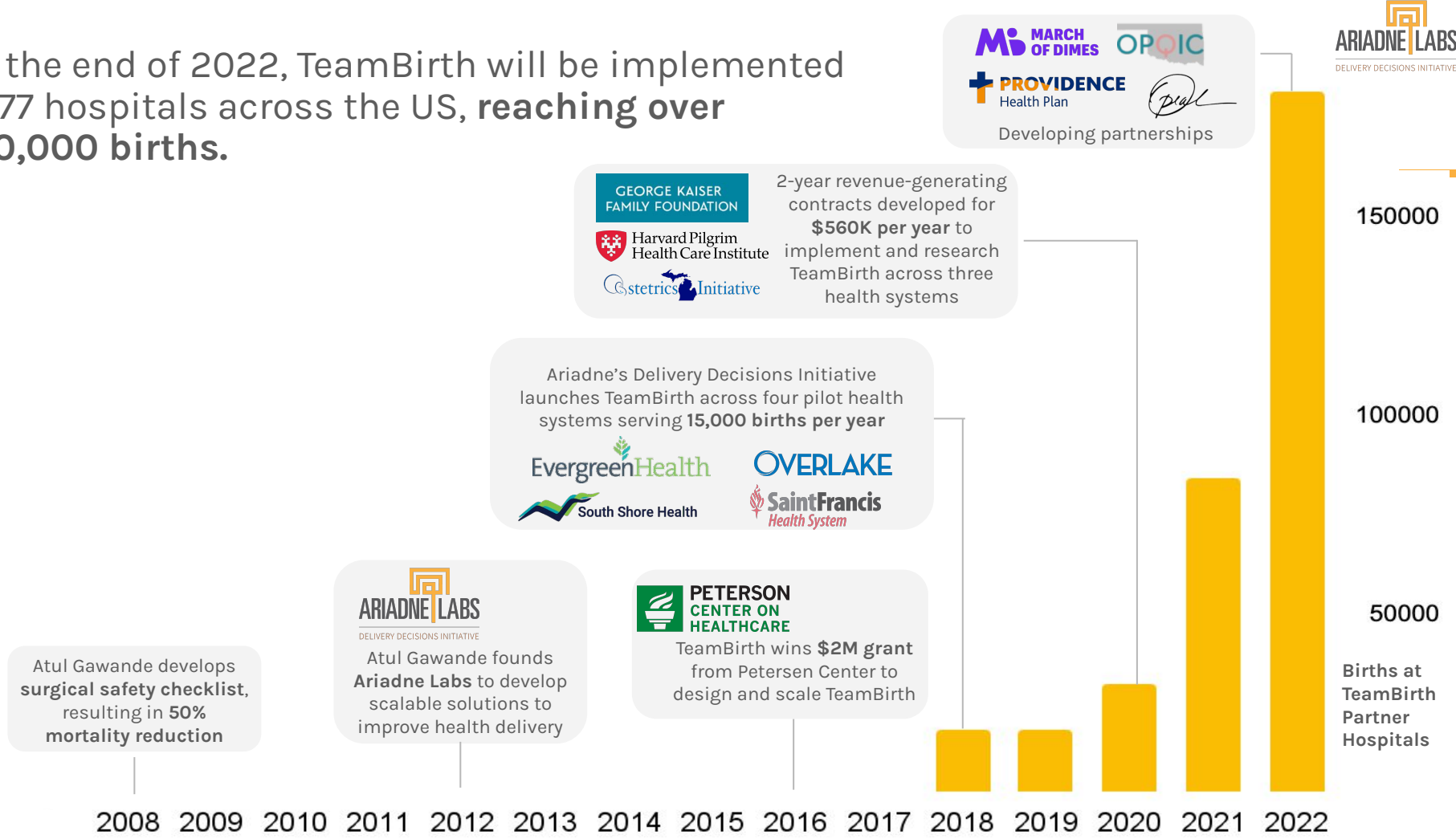
By the end of 2022, TeamBirth will be implemented in 77 hospitals across the US, **reaching over 130,000 births.**



TeamBirth Participating Hospitals 2022

Massachusetts:

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

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)
- INTEGRIS Health Edmond
- INTEGRIS Baptist
- INTEGRIS Bass Baptist
- INTEGRIS Canadian Valley
- INTEGRIS Miami
- SSM St. Anthony OKC
- Ascension St. John Owasso
- Ascension St. John Jane Phillips

Will YOUR hospital be added to this list?

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Oklahoma Impact:

Cohort 1 Launch Events

Hillcrest South - Tulsa, OK

Bailey Medical Center - Owasso, OK


St. Mary's Regional Medical Center- Enid, 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

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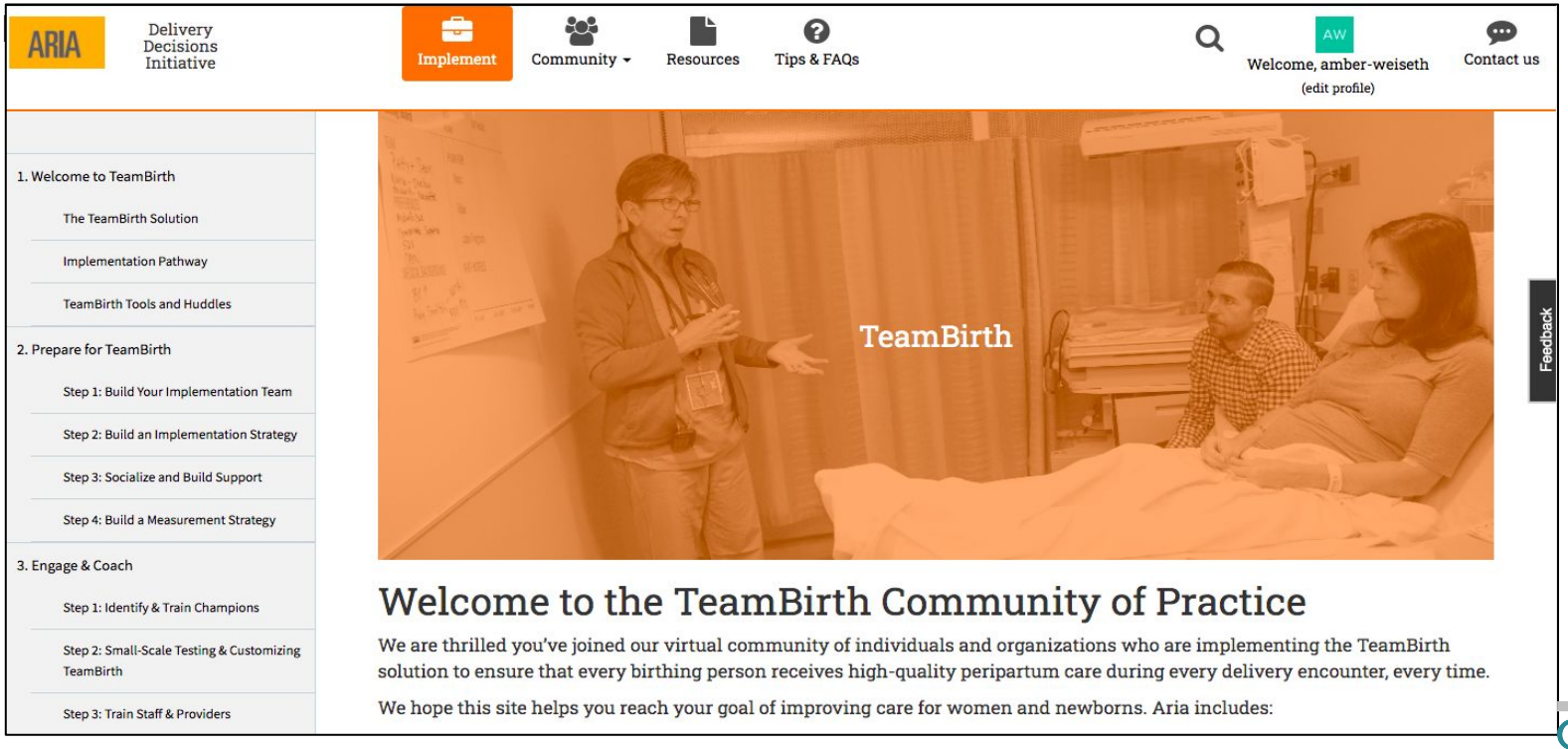
Aria



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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