Implementing Checklists for Quality Improvement: Monitoring & Evaluation

Webinar Series
March 28, 2017
Webinar Functionality – Chat & Raise Hand

How to Conduct a Clinician Training Session
Ariadne Labs | November 2015
Panelists

Emily Benotti, MPH
Project Manager, Ariadne Labs

Dr. Leonard Kabongo
Senior Medical Officer
Gobabis District Hospital, Namibia

Pinki Maji
Senior Manager in Implementation
BetterBirth Program, Population Services International, India

Jonathon Gass, MPH
Monitoring and Evaluation Specialist, Science & Technology Platform, Ariadne Labs
The Experience at Ariadne Labs with Quality Improvement Tools

Our mission is to build and support a community of researchers and practitioners who create and drive scalable solutions that produce better care at the most critical moments in patients’ lives everywhere.

**BetterBirth Program**
WHO Safe Childbirth Checklist and Implementation Guide

**Safe Surgery Program**
WHO Safe Surgery Checklist and Implementation Guide

**Serious Illness Care Program**
Serious Illness Conversation Guide
Webinar Series Recap: The Implementation Pathway
The WHO Safe Childbirth Checklist

- Childbirth is a complex process – it can be difficult to remember everything needed
- Checklists have proven to be successful in other industries to promote safety and quality
- 29 Essential Birth Practices across 4 Pause Points

The checklist can be modified to fit local context and guidelines
Webinar Series Recap: The Implementation Pathway

THE CHECKLIST

ENGAGE

LAUNCH

COACHING

DATA FEEDBACK

MEASUREMENT

SUPPORT

RESULTS

LEADING TO

Strengthened Individual & System Standards

Improved Maternal & Neonatal Quality of Care
Webinar Series Recap: The Implementation Pathway
Webinar Series Recap: The Implementation Pathway
Webinar Series, Today: The Implementation Pathway
Poll 1

What are you hoping to learn from today’s webinar? Select all that apply.

- General background information about monitoring and evaluation (M&E)
- How to choose appropriate metrics for M&E
- How to collect data
- Understand different methods for data feedback
- Hear how other implementers have effectively applied the M&E step in the pathway
- Other, please specify ________
Today’s Outline

1. Introduction to Monitoring and Evaluation (M&E)
2. BetterBirth Approach
3. Namibia Approach
4. Question & Answer
What are monitoring and evaluation (M&E)?

- **Monitoring**: integrated ongoing measurement that aims to provide a program with information on progress of activities.

- **Evaluation**: a systematic examination of an ongoing or completed program to understand its effectiveness, efficiency, impact, or sustainability (among other things!). Can also help understand why something is not (or is) working.
Why monitoring and evaluation are important

• You need to know if people are doing what you want them to do AND if it is having the result you want

• You can not improve what you do not measure

• Only way to keep people accountable, capture lessons learned, and feedback results
What data should I collect?

1) Align data collection strategy to overall programmatic objectives

2) There are generally 2 types of measurement:
   - Routine measurement
   - Targeted measurement

3) Measures can be of your activities or of your intended results:
   - Process metrics
   - Outcomes metrics
Setting metrics

Keep in mind:

1) You cannot measure everything!

2) Design metrics upfront during implementation planning stage

3) Adapt as you go: some indicators will seem important at first and less as you implement

4) “Need to know” versus “good to know” indicators
Setting SMART Indicators

Indicators should be **S M A R T**:

- **Specific**: who, what, where, when, how

- **Measurable**: has the capacity to be counted, observed, or analyzed

- **Achievable**: the target should be achievable and realistic

- **Relevant**: should be a valid measure of the process or outcome

- **Time-related**: should state when it will be measured
Process metrics examples

- SCC use:
  - % of birth attendants using the checklist in the last week
  - % of birth attendants trained to use the checklist in the last year

- Monitoring of checklist practices:
  - % of total checklist practices conducted by clinicians in the last week
  - % of deliveries in which post-partum oxytocin was administered

- Supply availability:
  - % of deliveries in which the neonatal bag and mask was prepared at the bedside prior to birth
Outcomes metrics examples

Complications and death:

- Maternal morbidity (at facility or post-discharge)
- Maternal mortality (at facility or post-discharge)
- Neonatal morbidity (at facility or post-discharge)
- Neonatal mortality (at facility or post-discharge)

Other outcomes metrics:

- Provider perspectives before and after intervention (interviews, focus groups)
- Surveys (patient satisfaction, provider competency/confidence)
- % of women who return to the facility for post-natal care
- % of women who return to your facility for subsequent deliveries
How can I collect these data?

• Determine who on your team is responsible for data collection and reporting

• Establish a frequency at which the data should be collected

• Select a tool for storing the data (e.g. REDCap, Excel etc.)

• Select unit(s) of analysis to track:
  - Patient-level data
  - Clinician-level data
  - Clinic-level

• Determine who will be the consumer of the results and how you will provide feedback
Poll 2

What barriers are you facing or think you may face related to measurement of your SCC implementation? Select all that apply.

- I’m having a hard time deciding what is most important to measure since I can’t measure everything
- I don’t have the resources for systematic measurement
- I’m not sure how to define program success
- There are other competing priorities for quality improvement resources at my institution
- I have not yet thought about measurement
- I am not facing any barriers
- Other, please specify ________
Learning from your data
Data feedback for ongoing learning & improvement

Learning from your data in (relatively) real-time is key, allowing you to:

- Understand what is working and what is not
- Rapidly identify and understand barriers and successes
- Adapt implementation to reflect ongoing learning (quality improvement)
- Avoid finding out what is not working until it is too late!!
- Creates a learning environment
- Keep staff informed of challenges and successes
- Increase ownership of the checklist among staff
So how do I do this?

Methods for data feedback

- Numbers, charts, stories
- Reports in meetings or via email
- Run charts

How to communicate more broadly:

- Charting improvement over time and displaying in waiting room
- Send reports to facility administrators so they are aware of your program
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The BetterBirth Trial

PROJECT GOAL:
The BetterBirth Trial is a matched-pair, cluster-randomized controlled trial seeking to measure whether a WHO Safe Childbirth Checklist based coaching intervention is associated with reduced maternal and neonatal mortality.

OUTCOMES OF INTEREST:
- Adherence to essential birth practices by birth attendants
  - 7,500+ deliveries observed
- Early (7-day) maternal morbidity and mortality; perinatal mortality
  - Over 162,000 mother-baby pairs followed

PARTNERS:
- Government of India
- Government of Uttar Pradesh
- World Health Organization
- Ariadne Labs: A joint center for health systems innovation of Brigham and Women's Hospital and Harvard T.H. Chan School of Public Health
- Population Services International
- Community Empowerment Lab, Lucknow
- Jawaharlal Nehru Medical College, Belgaum
- The Bill & Melinda Gates Foundation
Coaching and Data Feedback

• Constructively sharing data on progress can:
  o Help identify successes and challenges
  o Lead to fruitful discussions
  o Inform decision-making
  o Spark action and motivate
Data Feedback from Behavior Observation During Coaching

1. BetterBirth coaches help birth attendants **adhere to the checklist**

2. Coaches **upload behavior data** to a cloud server via phone app

3. Automated Pulse System **analyzes data and sends reports back** to coaches’ phones

4. Coaches **share reports** with birth attendant and facility head for quality improvement
Behavior Heatmap to Influence Change

<table>
<thead>
<tr>
<th>Facility 410</th>
<th>Behavior</th>
<th>Times Observed</th>
<th>Success Rate</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
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<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
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<tbody>
<tr>
<td></td>
<td>Did BA take mother’s temp?</td>
<td>6</td>
<td>66.7%</td>
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<td>Did BA prepare a neonatal bag &amp; mask?</td>
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<td>Was water used to clean hands?</td>
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<td>52.3%</td>
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<td>Was soap used to clean hands?</td>
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<td>Was breastfeeding started within 1 hour?</td>
<td>15</td>
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<td>Was baby place skin-to-skin?</td>
<td>15</td>
<td>60.0%</td>
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<td>Was a checklist used?</td>
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<td>PP4: Did BA check mother for bleeding?</td>
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<td>PP4: Did BA check baby’s feeding?</td>
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<td>Were danger signs explained to mother?</td>
<td>7</td>
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Communication at All Levels
Creative Feedback Methods

Naujheel Facility Pharmacist shares the ‘Behavior Champion Stars’ created by his coach

Coach Shivangi shares her ‘Checklist Tree’ poster
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The Namibian Experience Implementing the Safe Childbirth Checklist

- Population: 72,668 with a density of 0.86/km²
- Largest government run district hospital in the region. Serves 73,000 patients a year, ~2200 deliveries annually
- High rate of perinatal and neonatal mortality with limited improvement
- Inconsistent use of Essential birth practices (EBPs)
The Namibian Experience implementing the Safe Childbirth Checklist
Poll 3

What additional information about monitoring and evaluation would you find helpful? Select all that may apply.

- How to decide which metrics are most helpful for my program and its goals
- What to do with the data once they are collected
- How to effectively provide data feedback
- I feel confident with the information I have received so far
- Other, please specify: _________________
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Questions from the audience
Online availability

The Checklist and Implementation Guide are available to download for the BetterBirth, Safe Surgery, and Serious Illness Care Programs on both the Ariadne Labs’ and WHO websites:

http://www.ariadnelabs.org
http://www.who.int

WHO Safe Childbirth Checklist:
https://www.ariadnelabs.org/areas-of-work/childbirth/resources/

http://www.who.int/patientsafety/implementation/checklists/childbirth/en/

Serious Illness Care Program:
https://www.ariadnelabs.org/areas-of-work/serious-illness-care/

Safe Surgery Program:
Next Steps for Webinar Series on Checklist Implementation

- The next webinar in this series will be held in the coming months.

- More information along with the resources from this webinar will be sent to you via email.

- Today’s webinar will be available in the BetterBirth Ariadne Labs Community:
  
  [https://portal.ariadnelabs.org/](https://portal.ariadnelabs.org/) > BetterBirth Community

- If you have follow-up questions please contact: scc@ariadnelabs.org