



INSTITUTE FOR
**PERINATAL
QUALITY
IMPROVEMENT**

Using QI to Improve Care in the Time of COVID

Debra Bingham, DrPH, RN, FAAN

*Institute for Perinatal Quality Improvement
(PQI) www.perinatalQI.org*

QI Saves Lives!



Definition of QI

*“...systematic, **data-guided** activities designed to bring about immediate, **positive changes** in the delivery of health care in particular settings.”*

Baily, M.A., Bottrell, M., Lynn, J., & Jennings (2006). Special report: the ethics of using QI methods to improve healthcare quality and safety. The Hastings Center: Garrison New York, pg. S5.

*“We conclude that engaging in quality improvement is **NOT** purely **Discretionary**; health professionals, managers, delivery organizations, patients, and government all have an ethical responsibility to cooperate with one another to improve the quality of care.”*

Baily, M.A., Bottrell, M., Lynn, J., & Jennings (2006). Special report: the ethics of using QI methods to improve healthcare quality and safety. The Hastings Center: Garrison New York, pg. S6.

Problems

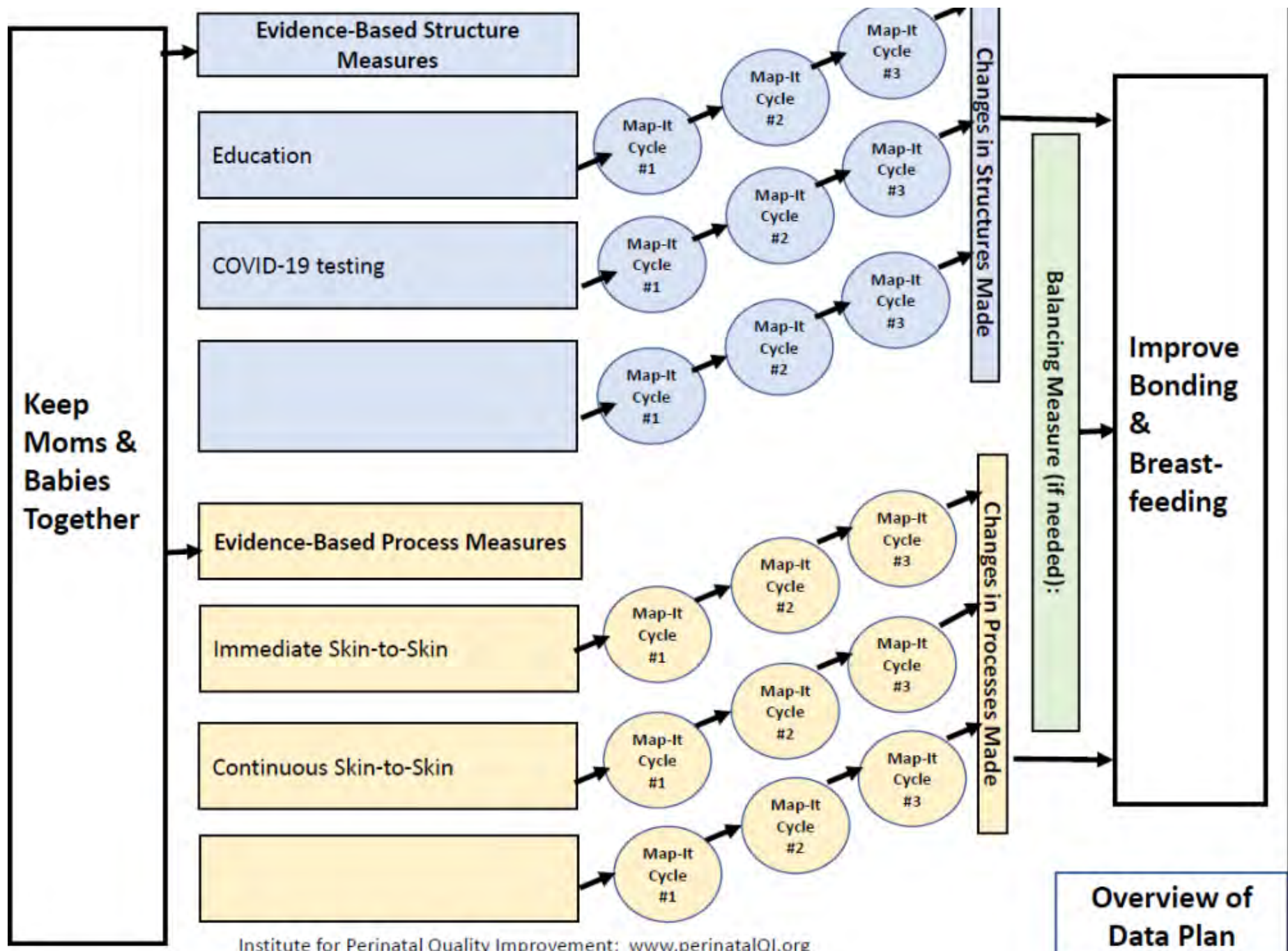
- Gap/Chasm between what we know and what we do
- During COVID-19 there is a gap in what we know to guide what we do
- Be careful that we don't cause more harm than good
- Lack of knowledge regarding how to develop and lead QI initiatives
- Lack of data by race and ethnicity

Clinicians need but most have not had QI Education & QI Support

- Implementation Science
 - Implementation Theories, Frameworks
- QI Methods and Concepts
 - QI Process Models
 - QI Ethics
- QI Tools
 - Process Maps
 - Fishbone Diagrams
 - Logic Models
 - Driver Diagrams

Create Data Metrics

- Track data over time
- Track data by race/ethnicity:
 - Work to eliminate disparities and ensure equity. Especially among Black non-Hispanic women, Native American and Indigenous women
 - Identifying disparities is the first step
- Develop Metrics for
 - **Structures**, e.g., policies & procedures, education, changes in electronic health records
 - **Processes**, e.g., quantification of blood loss, obtaining an accurate blood pressure within 10 min. of arrival and treating a blood pressure >160/110 within 30-60 min. of arrival, freedom of movement in labor
 - **Outcomes** – e.g., ICU admissions, cesarean births, number of packed red blood cells, peripartum hysterectomies



www.ihl.org/resources/Pages/Tools/RunChart.aspx

particular changes.

Directions

- The PDF tool document contains instructions for run charts and control charts, examples, and a template.
- The Microsoft Excel file provides a template to create run charts and consists of two worksheets: the first allows you to enter data and creates a run chart as you enter data; the second provide instructions on how to use a run chart to test for effective changes. (Developed by IHI faculty Richard Scoville, PhD, and used in numerous IHI workshops and Collaboratives.)

DOCUMENTS



 [Run Chart and Control Chart](#)

 [Run Chart Excel Template](#)

FEATURED VIDEOS

[Control Charts \(Part 1\)](#)

[Control Charts \(Part 2\)](#)

[Quality Improvement Essentials Toolkit »](#)

[Scatter Diagram »](#)

VIDEO RESOURCES

- [Science of Improvement "Whiteboard" Videos: Run Charts \(Parts 1 and 2\)](#)
- [On Demand: Using Run and Control Charts to Understand Variation](#)

UPCOMING PROGRAMS

[Finding and Creating Joy in Work »](#)

March 11, 2020 | IHI Online Course with Coaching

[Patient Safety Executive Development Program »](#)

March 12–18, 2020 | Boston, MA

[Quality Improvement Practicum »](#)

Begins March 17, 2020 | Online Course with Coaching




IHI Open School Resources

www.ihl.org/education/IHIOpenSchool/resources/Pages/BobLloydWhiteboard.aspx

Activities

- Video Library »
- Case Studies »
- Games and Exercises »
- Patient Stories »
- Publishing Your Work »
- Other Resources »


IHI Open School


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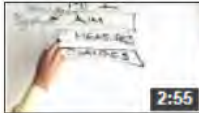
The Science of Improvement on a Whiteboard!


Robert Lloyd, Vice President at IHI, uses his trusty whiteboard to dissect the science of improvement. In short videos, he breaks down everything from Deming's System of Profound Knowledge, to the PDSA cycle, to run charts. Click, sit back, and enjoy the learning.


Want written instructions and templates for many of these tools? Download IHI's [QI Essentials Toolkit](#) — it's free.

**Deming's System of Profound Knowledge (Part 1)**
[Watch the video](#)
[Read the transcript](#)

**Deming's System of Profound Knowledge (Part 2)**
[Watch the video](#)
[Read the transcript](#)

**The Model for Improvement (Part 1)**
[Watch the video](#)
[Read the transcript](#)

**The Model for Improvement (Part 2)**
[Watch the video](#)
[Read the transcript](#)

**PDSA Cycles (Part 1)**
[Watch the video](#)

UPCOMING PROGRAMS


Finding and Creating Joy in Work »
March 1, 2018 | IHI Virtual Training


Improvement Advisor Professional Development Program »
April 3, 2018 | Boston, MA


IHI Quick Course: Back to Basics: Building Essential QI Skills »
March 5, 2018, Chicago IL, USA |
March 19, 2018, Calgary, AB, Canada | April 10, 2018, Toronto, ON, Canada


Resources:


- [Deming's On-Demand video](#)
- [Introduction to the Model for Improvement \(56 minutes\)](#)
- [Lessons in Data Collection and Run Charting Variation \(50 minutes\)](#)
- [Introduction and Control Charts to Variation \(56 minutes\)](#)


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COVID-19 CDC Breastfeeding Guidelines

- If you are breastfeeding and have symptoms of or confirmed COVID-19, take steps to avoid spreading the virus to your baby:
- Wash your hands before touching your baby
- Wear a face mask, if possible, while feeding at the breast
- Wash your hands before touching pump or bottle parts and clean all parts after each use

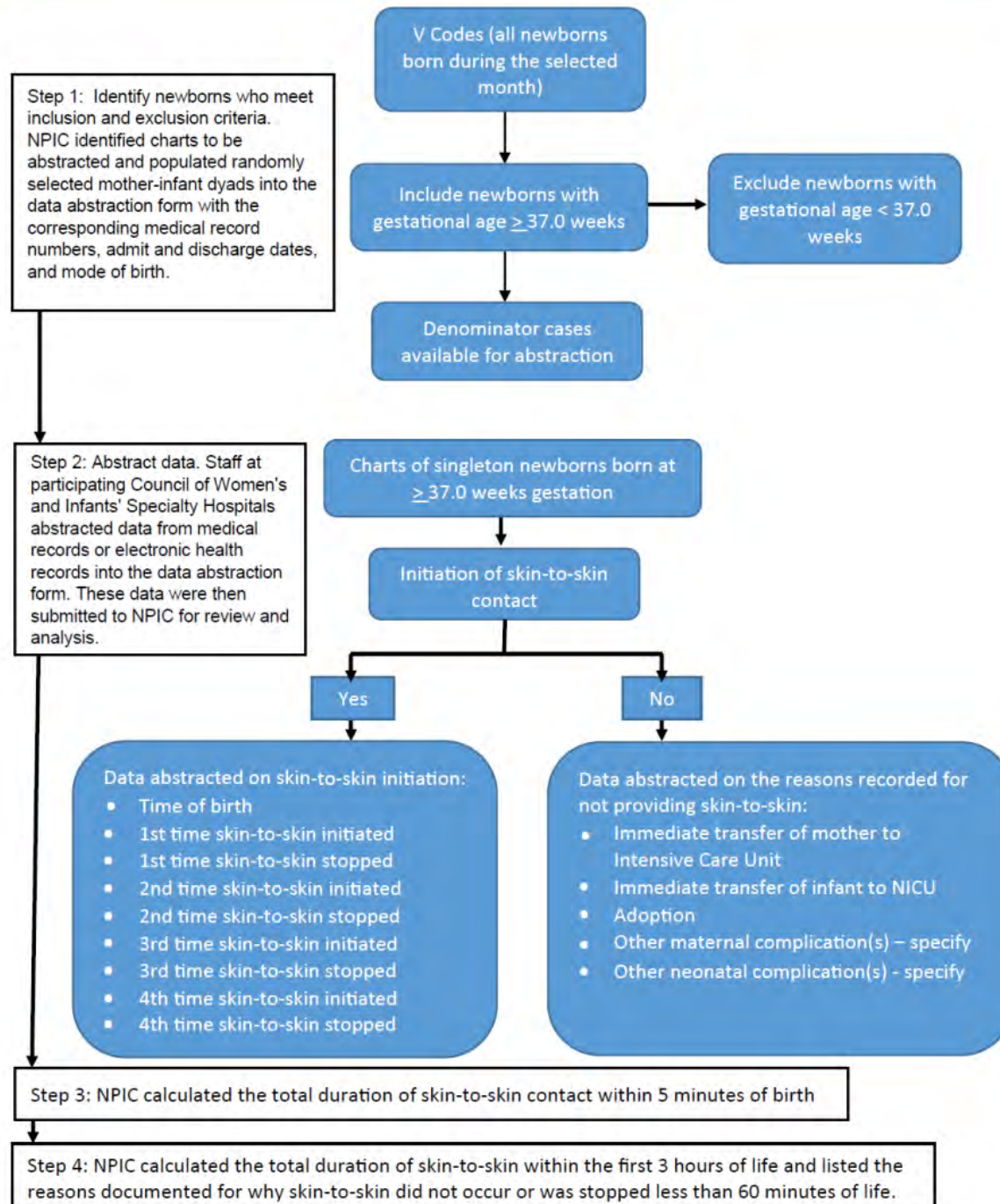
<https://www.cdc.gov/breastfeeding/breastfeeding-special-circumstances/maternal-or-infant-illnesses/covid-19-and-breastfeeding.html>

AAP Guidelines
Recommend
separation of
moms and
babies

Data are
needed to track
processes &
outcomes

[www.aappublications.org
/news/2020/04/02/infant
covidguidance040220](http://www.aappublications.org/news/2020/04/02/infant-covidguidance040220)

It is easier
to use
tested
measures



Bingham, D.,
Boisvert, M.E.,
Webb, A., Muri, J.
(2019).

**Feasibility of
AWHONN's
immediate and
continuous skin-
to-skin nursing
care quality
measures.**

*Journal of
Gynecologic,
Obstetric, and
Neonatal Nurses,*
48, pp. 516-525.

Example of Skin-to-Skin Numerator & Denominators

- Denominator
 - # of full term (>37 weeks) healthy newborns (exclude babies admitted to the NICU)
- Numerator
 - # of full term healthy newborns who are placed skin-to-skin within 5 minutes of life (immediate)
 - # of full term health newborns who remained skin-to-skin for at least 60 minutes (continuous)

Track data by race/ethnicity, mode of birth, shift, clinicians, etc.

On Monday, 5 infants were placed skin-to-skin

On Monday, 10 healthy infants \geq 37 weeks were born

50% of infants born were placed skin-to-skin

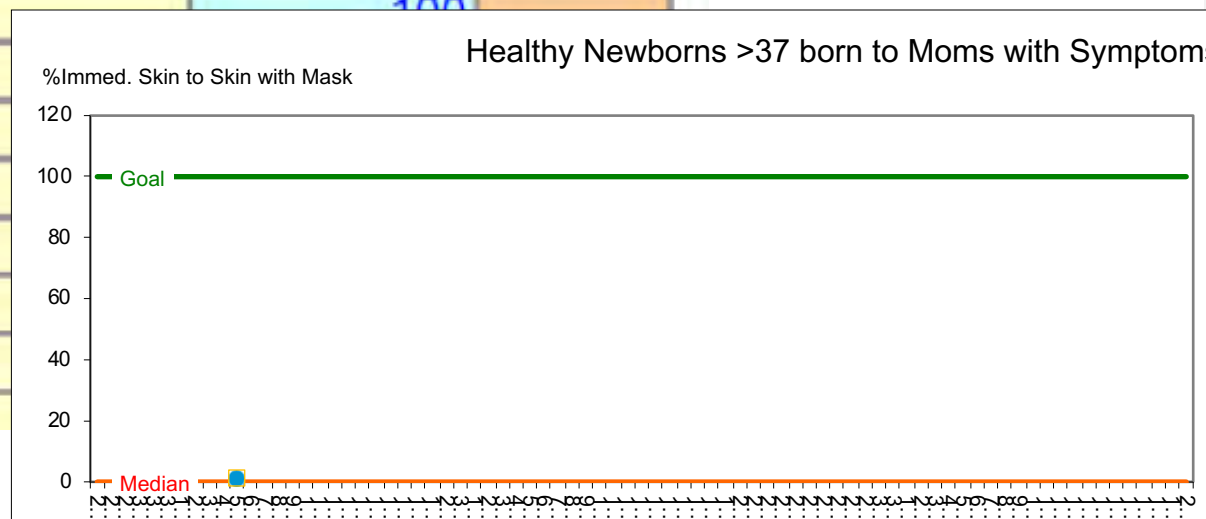
Race/Ethnicity:

On Monday, 5 babies were born to White women & 5 babies were born to Black women. 0% of the babies born to Black women were placed skin-to-skin

Vertical Axis Label %Immed. Skin to Skin with Mask
Graph Label Healthy Newborns ≥ 37 born to Moms with Symptom

Date / Observation	Value	Median	Goal	Extend PI New Phase
26-May			100	
27-May			100	
28-May			100	
30-May			100	
30-Aug			100	
31-Aug			100	
1-Sep			100	
2-Sep			100	
3-Sep			100	
4-Sep				
5-Sep				
6-Sep				
7-Sep				
8-Sep				
9-Sep				
10-Sep				

Example



Goals and Benchmarks



Contents lists available at ScienceDirect

Midwifery

journal homepage: www.elsevier.com/midw



Commentary

Setting perinatal quality and safety goals: Should we strive for best outcomes?

Debra Bingham, DrPH, RN, LCCE (Perinatal Consultant, Former Executive Director)

President-Elect of Lamaze International, California Maternal Quality Care Collaborative (CMQCC), USA

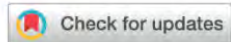
Introduction

The first steps toward improving perinatal outcomes are to identify where the problems are and develop solutions. Yet, there are a limited number of perinatal quality and safety goals that are widely used, inhibiting learning. There is also criticism that the current quality and safety measures may not be tracking the

Call to Action

ajog.org

Changing the conversation: applying a health equity framework to maternal mortality reviews



Michael R. Kramer, PhD; Andrea E. Strahan, PhD; Jessica Preslar, BS; Julie Zaharatos, MPH; Amy St Pierre, MBA; Jacqueline E. Grant, MD, MPH; Nicole L. Davis, MPH, PhD; David A. Goodman, MS, PhD; William M. Callaghan, MD, MPH

Population patterns of maternal mortality

Each maternal death is a tragic loss for families and communities. At a population level, maternal mortality rates may reveal critical flaws and shortcomings in health systems, communities, and soci-

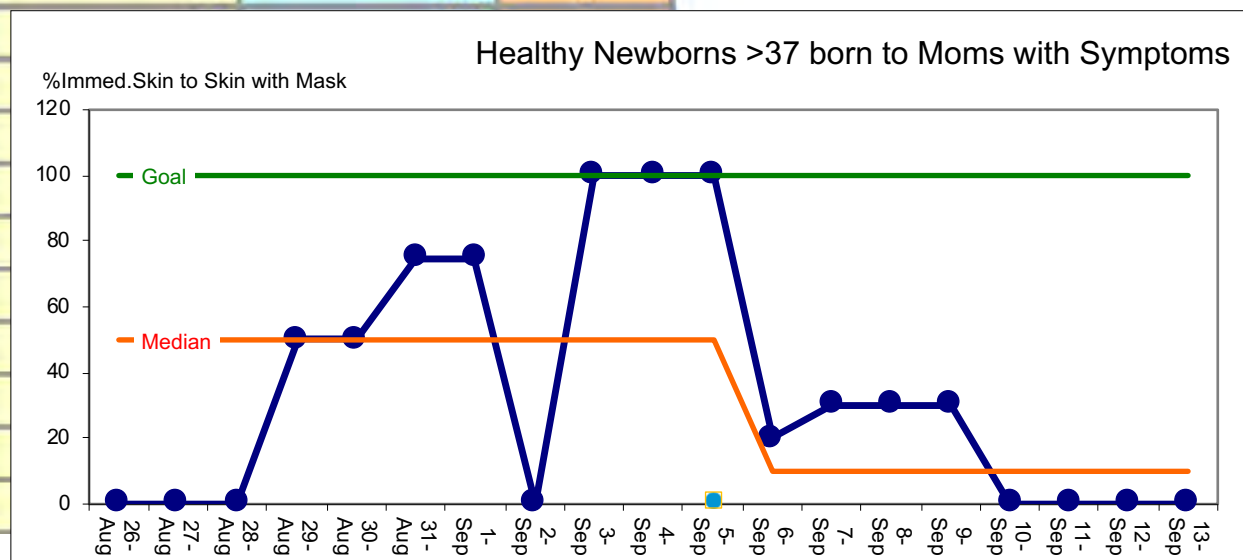
THE PROBLEM: Maternal mortality in the United States has increased in recent years, and racial and geographic disparities are unacceptably large. Conventional clinical risk factors for maternal mortality are important for risk stratification of individuals but do not adequately explain maternal mortality rate differences between racial and geographic populations. This knowledge gap limits implementation of effective efforts to eliminate inequity in maternal mortality.

Vertical Axis Label %Immed.Skin to Skin with Mask

Graph Label Healthy Newborns ≥ 37 born to Moms with Symptom

Example

Date / Observation	Value	Median	Goal	Extend PI New Phase
26-Aug	0	50	100	
27-Aug	50	50	100	
28-Aug	50	50	100	
29-Aug	50	50	100	
30-Aug	50	50	100	
31-Aug	0	50	100	
1-Sep	0	50	100	
2-Sep	0	50	100	
3-Sep	100	50	100	
4-Sep	100	50	100	
5-Sep	100	50	100	n
6-Sep	20			
7-Sep	30			
8-Sep	30			
9-Sep	30			
10-Sep	0			
11-Sep	0			
12-Sep	0			
13-Sep	0			
	0			

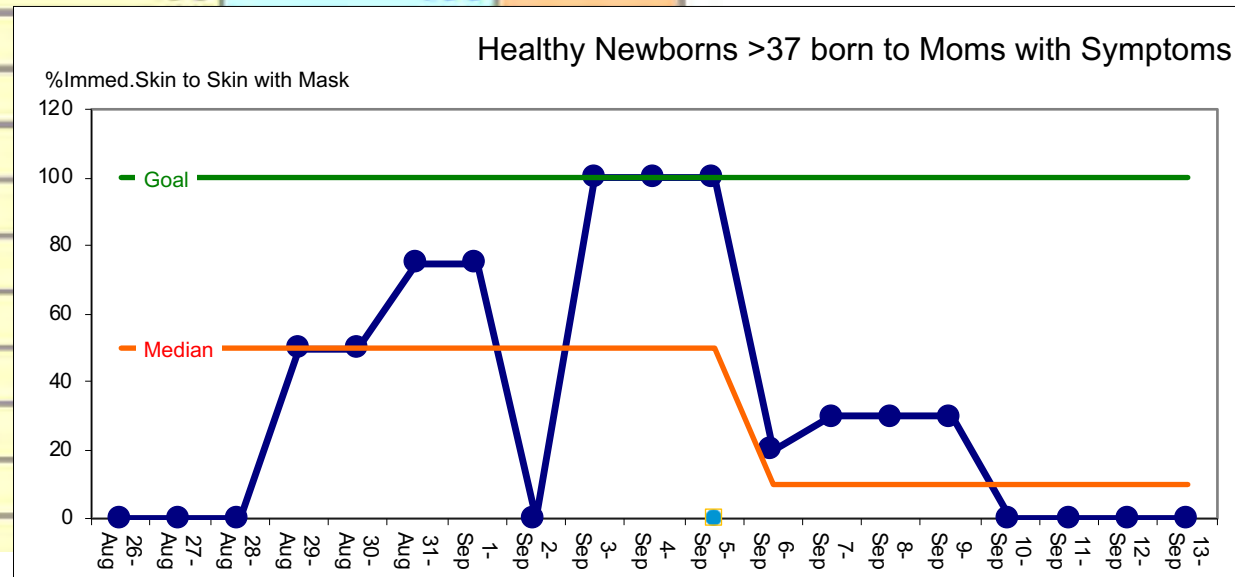


Vertical Axis Label %Immed.Skin to Skin with Mask

Graph Label Healthy Newborns ≥ 37 born to Moms with Symptom

Example

Date / Observation	Value	Median	Goal	Extend PI New Phase
26-Aug	0	50	100	
27-Aug	0	50	100	
28-Aug	0	50	100	
29-Aug	50	50	100	
30-Aug	50	50	100	
31-Aug	75	50	100	
1-Sep	75	50	100	
2-Sep	0	50	100	
3-Sep	100	50	100	
4-Sep	100	50	100	
5-Sep	100			
6-Sep	20			
7-Sep	30			
8-Sep	30			
9-Sep	30			
10-Sep	0			
11-Sep	0			
12-Sep	0			
13-Sep	0			



QI Saves
Lives!



Thank you!

For more information go to: www.perinatalQI.org

Or email info@perinatalQI.org