

Emory Conference on Breastfeeding  
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## Optimizing Newborn Nutrition in Georgia: Early Lessons of a Collaborative QI Improvement Initiative

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### Disclosures



- Noveome, Scientific Advisory Board
- Infant Bacterial Therapeutics/Premier Research, DSMC



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### Objectives



- Discuss the Motivation for Optimizing Newborn Nutrition
- Review Key Measures of Newborn Nutrition in Georgia
- Discuss Our Model for Improvement
- Report on Performance of Key Measures to Date
- Share our Future Goals for 2023-2024



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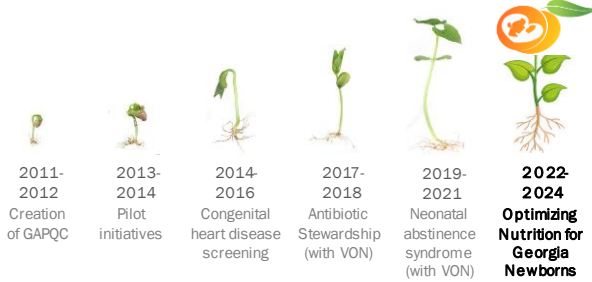
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### The GAPQC Neonatal Journey




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### How is Georgia doing with newborn nutrition?




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### What can Georgia and GaPQC improve?



#### Strengths

- >80% of Georgia hospitals have the ideal response for...
  - Transition
  - Glucose monitoring
  - Post-discharge follow up visit
  - Post-discharge breastfeeding support
  - Documentation of exclusive breastfeeding

#### Areas for Improvement

- Response rate (56%)
- <40% of Georgia hospitals have the ideal response for...
  - Mother-infant separation for procedures
  - Formula-feeding of breastfed infants
  - Written policies

Slides courtesy of Dr. Kristin Marks, CDC

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### HOW can WE improve?




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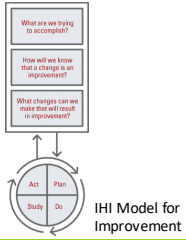
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# QI Methodology is Not Rocket Science



$\Sigma F = ma = -F(t) = -G \Delta t$   
 $m \Delta v = \Delta m + \Delta v m = -G \Delta t$   
 $m \frac{dv}{dt} + v \frac{dm}{dt} = -G \frac{dm}{dt} = -G$   
 $\Delta t \rightarrow 0$   
 $m v'(t) + v m'(t) = -mg$   
 $v'(t) + v \frac{m'(t)}{m} = -g + C$   
 $v(0) = 0 \Rightarrow C = v_0 \frac{m_0}{m_1}$   
 $v(t) = -gt + v_0 \frac{m_0}{m}$

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## SMART Aim

- What are we trying to accomplish?
- How will we know that a change is an improvement?
- What changes can we make that will result in improvement?

Increase % of newborns in GaPQC hospitals with human milk as the first feeding by 10% from 73% to 80% by 9/1/24




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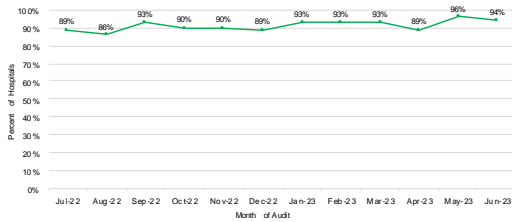
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## Hospital Audit Completion Rate



Thank you to the hospitals and **Linda (Tran) Pham, MPH**, Perinatal Data Manager at DPH!

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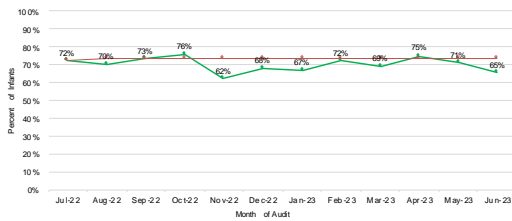
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## Human Milk as First Feeding



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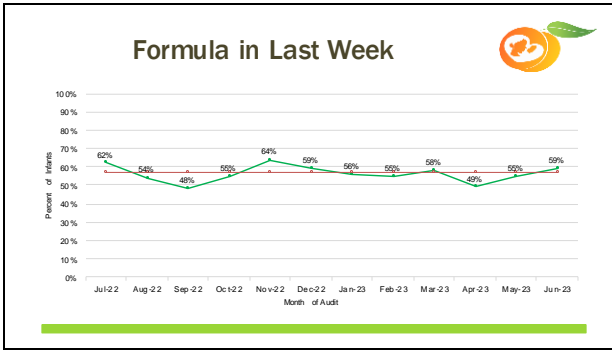
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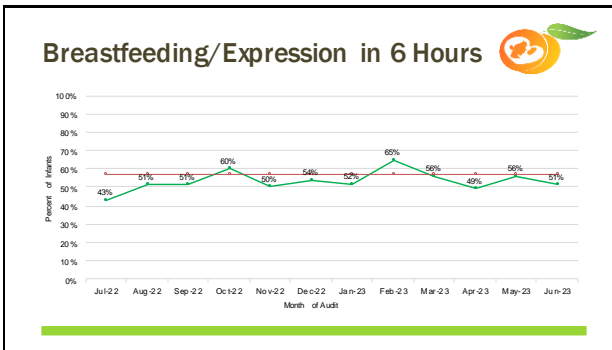
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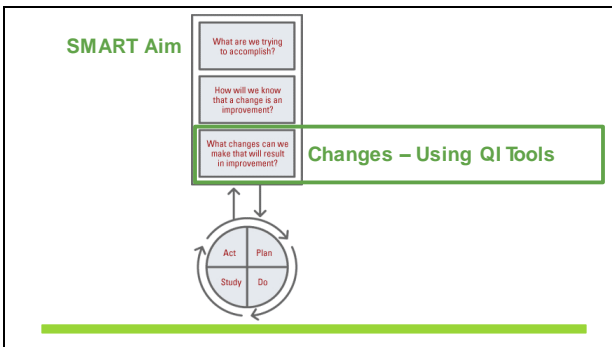
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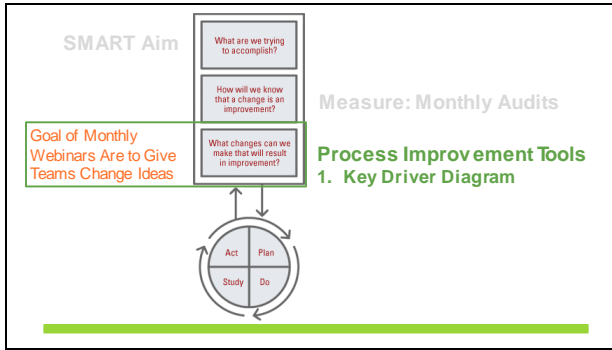
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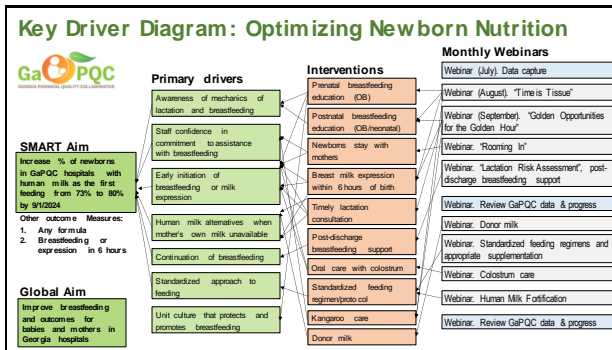
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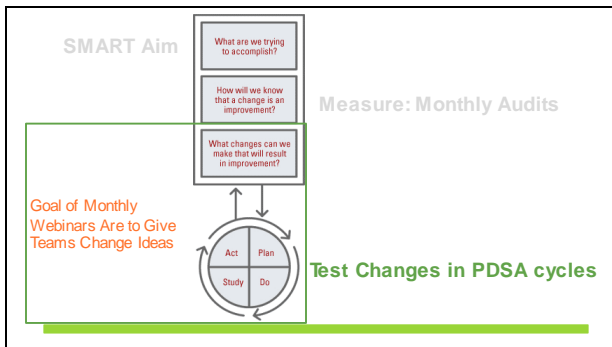
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## PDSA Cycles

- **Plan**
  - State the test objective and make a prediction about what will happen.
  - Develop the plan (Who? What? When? Where? What data?)
- **Do**
  - Carry out the test and document problems and unexpected observations.
- **Study**
  - Analyze the data and summarize what was learned.
- **Act**
  - Adopt, Adapt or Abandon based on what was learned.
  - Plan next test, consider testing in a larger group or different setting.

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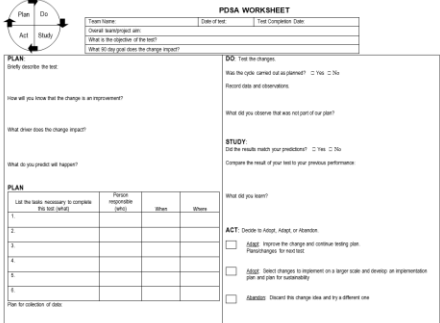
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**PDSA WORKSHEET**

Client Name: \_\_\_\_\_ Date of test: \_\_\_\_\_ Test Completion Date: \_\_\_\_\_  
 Clinical background info: \_\_\_\_\_  
 What is the objective of the test? \_\_\_\_\_  
 What do you expect from the change impact? \_\_\_\_\_

**PLAN**  
 Study objective for test: \_\_\_\_\_  
 How will you know that the change is an improvement? \_\_\_\_\_  
 What other tests has change impact? \_\_\_\_\_  
 What do you predict will happen? \_\_\_\_\_

PLAN	Person responsible (name)	When	Where
1.			
2.			
3.			
4.			
5.			
6.			

Plan to collect data: \_\_\_\_\_

**DO** Test the changes.  
 Was the cycle carried out as planned?  Yes  No  
 Record data and observations.  
 What did you observe that was not part of our plan? \_\_\_\_\_

**STUDY**  
 Did the results reach your prediction?  Yes  No  
 Compare the result of your tests to your previous performance.  
 What did you learn? \_\_\_\_\_

**ACT** Decide to Adopt, Adapt, or Abandon.  
 **Adopt** Replicate the change and continue testing plan. Personalize to practice.  
 **Adapt** Select changes to implement on a larger scale and develop an implementation plan and plan for sustainability.  
 **Abandon** Discontinue the change idea and try a different one.

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## PDSA Cycle: Example

- **Plan**
  - Test a new parent information sheet for Hepatitis B vaccination.
  - Nurse Judy will give the information sheet to the mother of her first patient on Tuesday and obtain feedback using a form.
- **Do**
  - New vaccine sheet handed out.
  - Feedback form completed and obtained from patient's mother.
- **Study**
  - Font was too small to read.
  - Some language was hard to understand.
- **Act**
  - Adapt: Font enlarged. Reading level decreased to 8<sup>th</sup> grade.
  - Nurse Judy will test new sheet again on Thurs for all 4 of her patients.

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# RULE:

## Testing ≠ implementation

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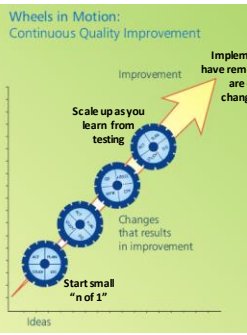
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Jain M. Road Map for QI

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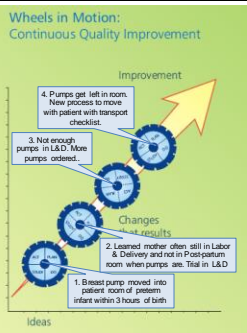
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Jain M. Road Map for QI

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### PDSAs are more than just ....



- Collecting data
- An educational program
- Developing policies or protocols
- Implementing a solution
- Want to test something until your team is reasonably confident process will actually happen as intended

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### Implement changes that work



- Develop written policies
- Incorporate into standard workflow
- Provide unit-wide or practitioner-wide training
- Make necessary investments
  - Purchase items, hire new people, change schedules, etc.
- Will require some day-to-day feedback before it becomes part of the standard process and may require more PDSAs

John M. Road Map for QI

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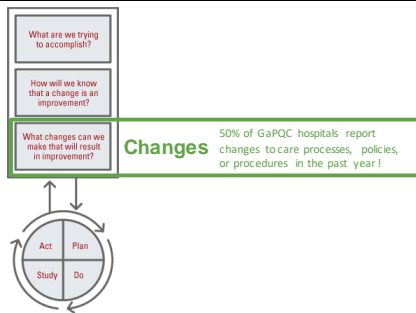
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### SMART Aim




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### Georgia Has Been Busy !



"A lot. Each unit (NICU, LD, and MB for each campus) has a breastfeeding goal as their unit metric. Each unit participated in creating the key driver diagram (KDD). The KDD and monthly stats are discussed at each monthly Women and Children Leadership meeting to discuss what's working and what is not working. Metrics and charts are made into slides to present to each unit for their staff meeting with a tip on what to work on using "Know-Do-Say" method ... Directors communicate with staff individually on if there were circumstances that lead to not meeting goal, what is seen in the chart, and what improvements can be made."



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### Georgia Has Been Busy !



"Allowed for donor milk up to 34 weeks and the weight of 1800s grams, rather than cutting off at 32 weeks and 1500 grams."

"Updated donor milk policy to expand use of donor milk in the NICU, MBU and L&D."

"Initiating lactation and breast-feeding education within 24 hours of admission, and routine follow up. More frequent use of donor EBM."

"Updated feeding protocols, advancing feeds faster"



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### Georgia Has Been Busy !



"Breastfeeding checklist for nursing to fill out. Hand expression trainings to nursing staff from our lactation specialist. Implementing a NICU specific lactation specialist."

"Encouraging rooming- in. Educational information about rooming in given to OB office to be handed out. Educational flier about rooming in placed in all rooms."

"Director speaks to any nurse leaving formula in rooms that did not request formula."



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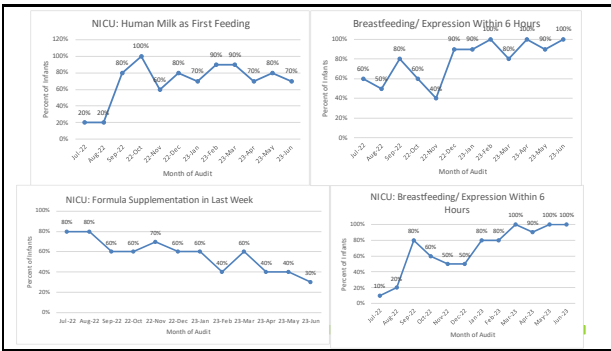
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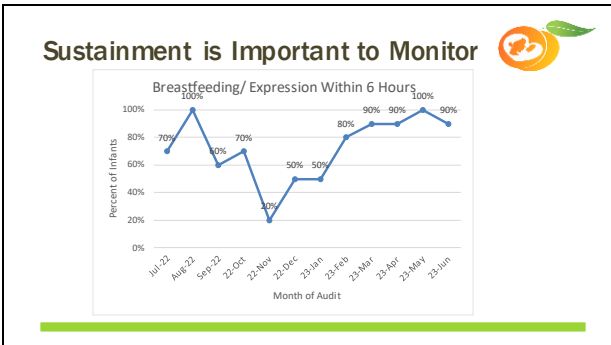
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### Policies to Implement Change



Structure Questions	Jul-22	Jan-23
Policy on milk collection, storage and administration	93%	79%
Physicians on the team	79%	87%
Policy on breast pump access, teaching and use	68%	86%
Policy on hand expression of milk	68%	68%
Policy supporting routine newborn care in the mother's room	68%	95%
Policy on donor milk use?	64%	64%
Policy on skin-to-skin care and early lactation	61%	91%
Policy requiring breastfeeding education for new staff and continuing education	57%	78%
Policy on supplementation that lists medical indications and guidance for supplementation of breastfed breast milk	50%	70%

22 hospital units responded in July 2022 and 25 responded in Jan 2023

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### Engagement and learning

11 webinars

Participants from 47 hospitals




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### Engagement and learning

39 part of active improvement

701 people Completing microlessons




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Engagement and learning

2,530 infants audited

28 sites submitting data each month on average



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**THANK YOU TO THE NEONATAL COMMITTEE  
AND OUR STATE DPH PARTNERS  
AND CDC FOR FUNDING**



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