The Birth of the Collaborative in Brazil

IHI National Forum 2015, Orlando

#IHI27FORUM

Pedro Delgado, IHI
Paulo Borem, MD, IHI
Rita Sanchez, HIAE

Agenda

- Context
  Why 85% of CS is a problem?
- Background
  What Brazil had done so far?
- The Collaborative solution
- Results
- Next steps
“The global rise of Caesarean sections is being driven not by medical necessity but by growing wealth—and perverse financial incentives for doctors”

Not a good place to be!!!
### Table 1. Risk of Adverse Maternal and Neonatal Outcomes by Mode of Delivery

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Vaginal Delivery</th>
<th>Cesarean Delivery</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Maternal</strong></td>
<td></td>
<td></td>
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<tr>
<td>Overall severe morbidity and mortality</td>
<td>8.6%</td>
<td>9.2%</td>
</tr>
<tr>
<td>Maternal mortality</td>
<td>3.6:100,000</td>
<td>13.3:100,000</td>
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<tr>
<td>Amniotic fluid embolism</td>
<td>3.3–7.7:100,000</td>
<td>15.8:100,000</td>
</tr>
<tr>
<td>Third-degree or fourth-degree perineal laceration</td>
<td>1.0–3.0%</td>
<td>NA (scheduled delivery)</td>
</tr>
<tr>
<td>Placental abnormalities</td>
<td>Increased with prior cesarean delivery versus vaginal delivery, and risk continues to increase with each subsequent cesarean delivery.</td>
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<tr>
<td>Urinary incontinence</td>
<td>No difference between cesarean delivery and vaginal delivery at 2 years.</td>
<td></td>
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<tr>
<td>Postpartum depression</td>
<td>No difference between cesarean delivery and vaginal delivery.</td>
<td></td>
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<tr>
<td><strong>Neonatal</strong></td>
<td></td>
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<tr>
<td>Laceration</td>
<td>NA</td>
<td>1.0–2.0%</td>
</tr>
<tr>
<td>Respiratory morbidity</td>
<td>&lt; 1.0%</td>
<td>1.0–4.0% (without labor)</td>
</tr>
<tr>
<td>Shoulder dystocia</td>
<td>1.0–2.0%</td>
<td>0%</td>
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</table>

*Increased risk...WHO, NICE, RCOG...*

Yes, We have a problem
No clinical justification for such high rates

In 2013 2100 women died

Prematurity is increasing
The birth of Collaborative

- Regulatory Agency for the private sector: published rules and recommendations – no effect!!!!
- Before 2012 no demonstration to reduce CS rates private sector
- First Pilot 2012 – Unimed Jaboticabal from 0% to 40% NB in 9 months
- 3 more cities with same results
- Public prosecutor sued ANS – Brazilian Regulatory Agency for Health Private Sector

Jaboticabal experience: its possible
Jaboticabal Results: its possible

Increasing the percentage of vaginal birth in the private sector in Brazil through the redesign of care model: Rev Bras Ginecol Obstet. 2015;37(10):446-54
Borem P, Ferreira JB, Silva UJ, Valério Júnior J, Orlanda CM

60% reduction

Tests performed with unpaired sample sizes
IHI Breakthrough Series
Adaptation of the model

Select Topic (Develop Mission)

Expert Meeting

Planning Group

Prework

LS 1

LS 2

......

LS 5

AP1

AP2,3 and 4

Supports

Email

Phone Conferences

Extranet

Visits

Assessments

Sponsors

Monthly Team Reports

Dissemination
Publications, Congress, etc.

Holding the Gains

What are we trying to Accomplish?

How will we know that a change is an improvement?

What change can we make that will result in improvement?

The Model for Improvement

The three questions provide the strategy

Act

Plan

Study

Do

The PDSA cycle provides the tactical approach to work

Source:
After 18 months we expect
1. Reduce maternal and neonatal morbidity
2. Reduce gap between science and the obstetric practice safely increase the % Natural Birth
3. Improve the experience of care (safety care, timeless, efficient, effective, equitable and focused on the needs of families and community)
4. Reduce per capita costs of maternal care and child
The Partners Roles

is the Proponent of the Collaborative. It Coordinates, monitors, interact with the health plans and with the media
gives the medical-scientific training and is responsible for logistics and test some changes in advanced
is responsible for teach improvement science, quality and clinical safety, process mapping, construction of the measures, data analysis and monitoring for improvement. It brings the Collaborative model.

Who are the 42 hospitals?

Criteria for participation:
Private
• > 500 births per year
• CS rate above 75%
• Hospitals with above 50% private beds
• Capital or a rural city
Public:
• > 1000 births per year
• CS > 65%

In average CS rate 80.9%
Represents 85.185 deliveries - 6% in Brazil

Well distributed countrywide
Support from the Health Insurances

1. Participation is voluntary
2. Creation of a “Parto Adequado Space” on their websites with information about obstetricians that assist natural deliveries.
3. Create a new compensation model aligned with quality and safety, not volume
4. Paired with a provider to support the change package
Timeline Collaborative

Collaborative is born

October 2014 ANS/HIAE/IHI

January 2015 ANS

Percentage of CS Providers use partograma and prenatal booklets.

February 2015

Participants selected Shared with professionals societies

May 2015 First LS

LEARNING SESSIONS - MODEL FOR IMPROVEMENT

TEAMS
4 people
200 participants
Learning session: all teach, all learn
Hospitals, teams of obstetricians, managers, nurses learn and teach

AIM
- Increase the percentage of VB, especially in pregnant women classified as Robson I to IV;
- Reduce C-Section rates and NICU admissions
- Reduce birth-related adverse events

CHANGE THE DELIVERY CARE MODEL
GUIDELINES AND PROTOCOLS REVISION
TEAMS TRAINING
DATA COLLECTION
Promoting Healthier Moms and Babies by achieving 40% of Natural Child Birth by September 2016

<table>
<thead>
<tr>
<th>Primary drivers</th>
<th>Secondary drivers</th>
<th>Change concepts</th>
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<tr>
<td>1. Coalition of major stakeholders aligned around primacy of safe mother, safe baby</td>
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<tr>
<td>2. Empower pregnant women and their families to choose the care that is right for them (ensure readiness for NB)</td>
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<td>3. New care model to accommodate the longer time frame of normal physiologic birth</td>
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<td>4. Data systems that support learning</td>
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Change Package

Leaders, champions, front line with the skills to do continuous improvement
New contract between payers and providers creating incentives for quality and safety
Activate the community
Physical space redesign (Adequate ambiance for NB)
Well trained team to assist the deliveries
Team assist all pregnancy phases
Protocols and standardization for delivery and postpartum

Educate and instruct families and pregnant women to new care model
Listening to mother and families
Co-design and shared decision
Establish some quality and safety measures, report them to the providers
Create the capability to collect reliably information to generate the measures and results

Physician’s model of work – assisting birth

1. Obstetrician and nurses on shift

2. Obstetrician responsible for the prenatal care, with the support from the multidisciplinary staff on shift. The team on duty would assist the delivery until the arrival of the obstetrician.

3. Obstetricians create a team with colleagues that share the private practice and birth would be assisted by any of them
TEAM TRAINING

ALBERT EINSTEIN
REALISTIC SIMULATION CENTER

NURSES AND MEDICAL DOCTORS
VISIT HOSPITALS UPON REQUEST

Creating a Network

Preliminary results

- More than 300 health professional trained in clinical skills
- 90% showed increase in Natural Birth
- Hospitals hired nurses and established shifts for obstetricians
- Most of the hospitals adopted best practice to improve patient experience
...there is hope
Evidence: local and global

Ongoing learning

• Work in progress
  Too many changes?
  Community engagement slower than desired
• Clinical engagement and leadership (local and system wide)
• Worked well:
  Collaborative model and a “bold” Aim
  Having the Regulatory body involved
  Right Coalition ANS/HIAE/IHI
  Teams engagement
Next steps

2017 and beyond:
- A second wave of hospitals
- Improve community engagement
- Publish and Celebrate results
- As health system, we are still in debt to our pregnant women and babies

Scale up and spread

<table>
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<tr>
<th>Demonstration</th>
<th>Prototype</th>
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<tr>
<td>A strong change package by Oct ’16 backed by demonstration results</td>
<td>Jaboticcabal</td>
</tr>
</tbody>
</table>

- Strategies being defined
- Sustainability

28 + 14