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Healthcare  
Improvement

# Getting to Full Scale

*Pierre Barker MB ChB, MD*

*Chief Global Partnerships and Programs Officer  
IHI*

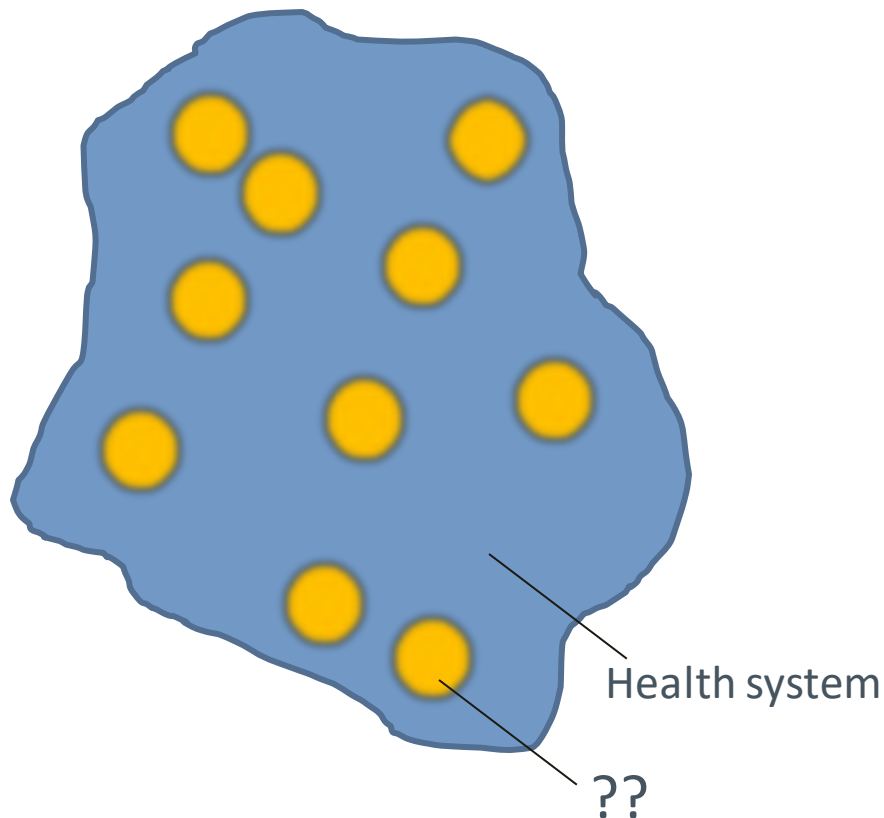
*Clinical Professor, Maternal and Newborn Health  
Gillings School of Global Public Health  
University of North Carolina at Chapel Hill*

# Why is scale up important?



A 2-part  
global  
aim.....

*“Attainment by  
all peoples of  
the highest  
possible level of  
health”*



## “Pilotitis”

- Inspired improvement projects (“hot spots”) that deliver great results
- Most often disappear after project ends
- Cannot be integrated with, or scaled up across the health system

# Avoiding “pilotitis”: moving beyond scattered local implementation

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- Reach: How do you ensure that scale up reaches *all parts* of your system?
- Fidelity: How do you ensure that you keep performance reliable as you scale up (scaling a better design)?
- Speed: How do you ensure that you reach full scale rapidly
- Sustainability: How do you ensure that the scaled-up intervention doesn't diminish over time?



# Over to you....

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What challenges have you experienced with scale up?

2 min discussion  
5 min report out



# Methods for spread and scale up

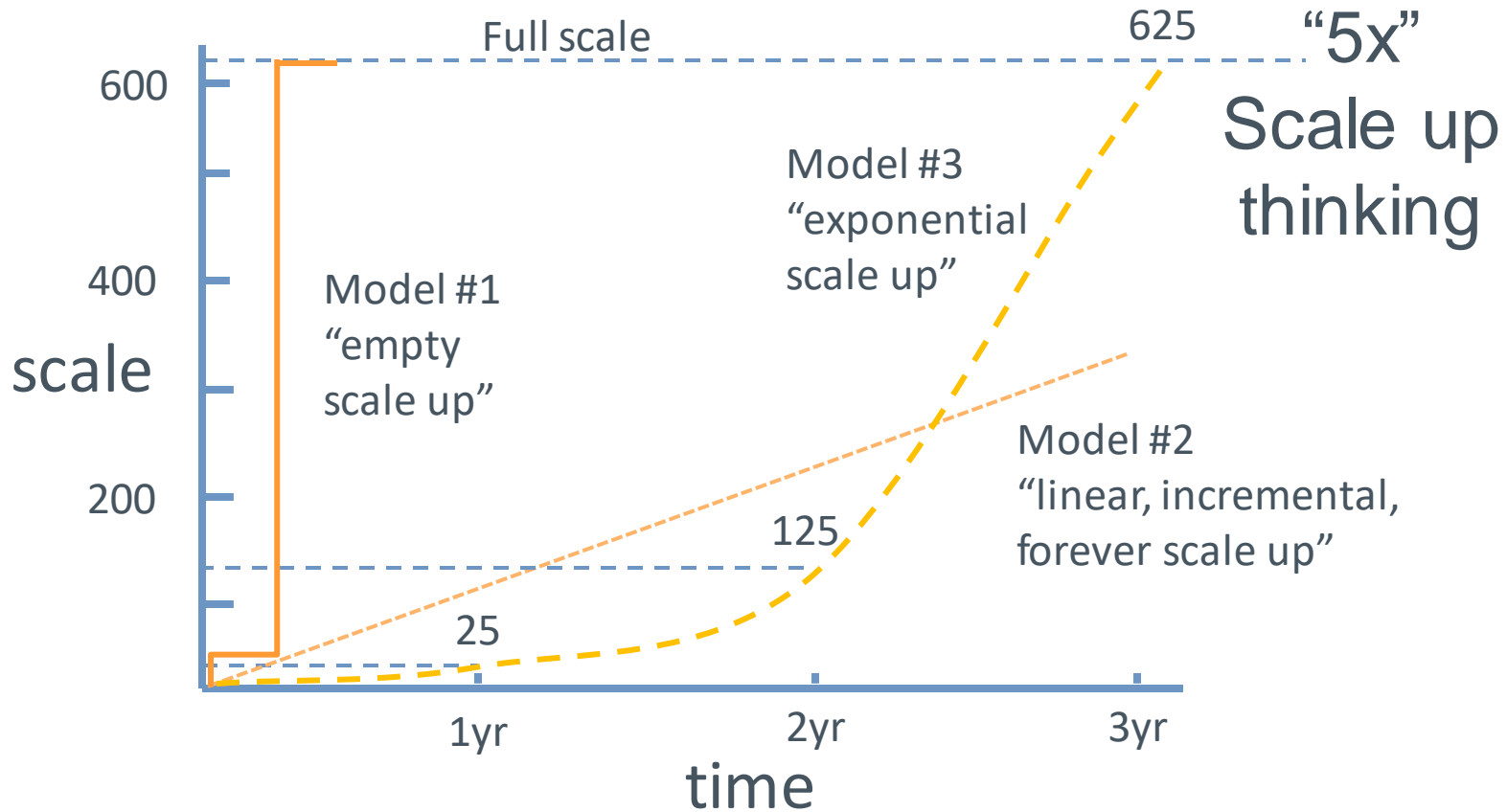
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1. Natural diffusion
2. Executive mandates
3. Extension agents - spread ideas and best practices.
4. Emergency mobilization – rapid efficient assembly of plans, materials, supplies.
5. Affinity group - develop superior model, then dissemination to other sites in the system.
6. Collaborative (physical or virtual) – networked structured learning and exchange around shared aims, measures, and goals.
7. Wave sequence - systematic spread within integrated multi-level systems
8. Campaigns - shared, quantitative aim connected to a targeted social system (evidence-based intervention, measurement, communications, and distributed field operations).
9. Hybrid approaches, where combined elements from different approaches form a new approach.



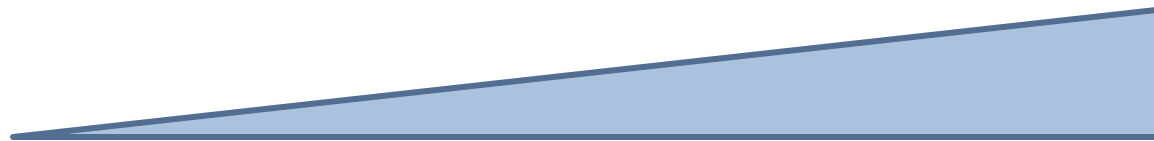
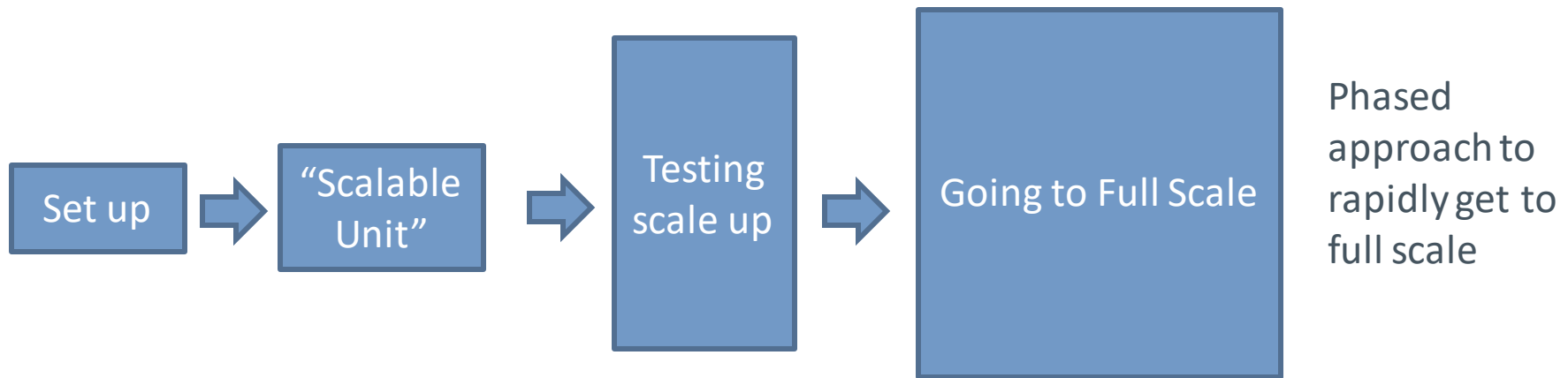
# Phased design allows Exponential vs Linear Scale

P8

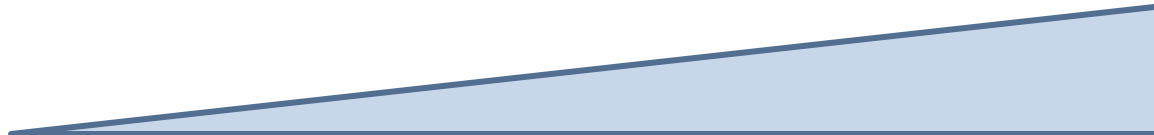


# The IHI Scale-up Framework

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1. Developing local implementation **ideas**



2. Building **will** for change and spread



3. Building the **infrastructure and tools** for scale-up

# 3 Case Studies

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- Brazil
- England
- Ethiopia





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P11

# Addressing the Cesarean Section Epidemic in Brazil

*Paulo Borem MD*

*Director, Latin America Region*



# Brazilian health care system

## 3M birth/year - 99% births in hospitals

	Private	Public
# of births	20%	80%
Professional model of care	Obstetricians on call	Midwives and obstetricians on duty
% of CS	85%	43%
Payment model	Fee for service	Salary
Pregnant women expectation related to the team of care	I will call my obstetrician when labor starts and I expect him/her to come to the hospital to assist my birth (anytime, 24/7)	I am going to the hospital to have my baby assisted by the team on duty
Antenatal care	Private office by the obstetrician	Primary care, including midwives

PPA assisted so far, 240K births



# Vaginal Birth before PPA – a positive experience?

No companion, fasting, immobilized,  
non pharmacological pain management

Birth in operation  
rooms

IV line



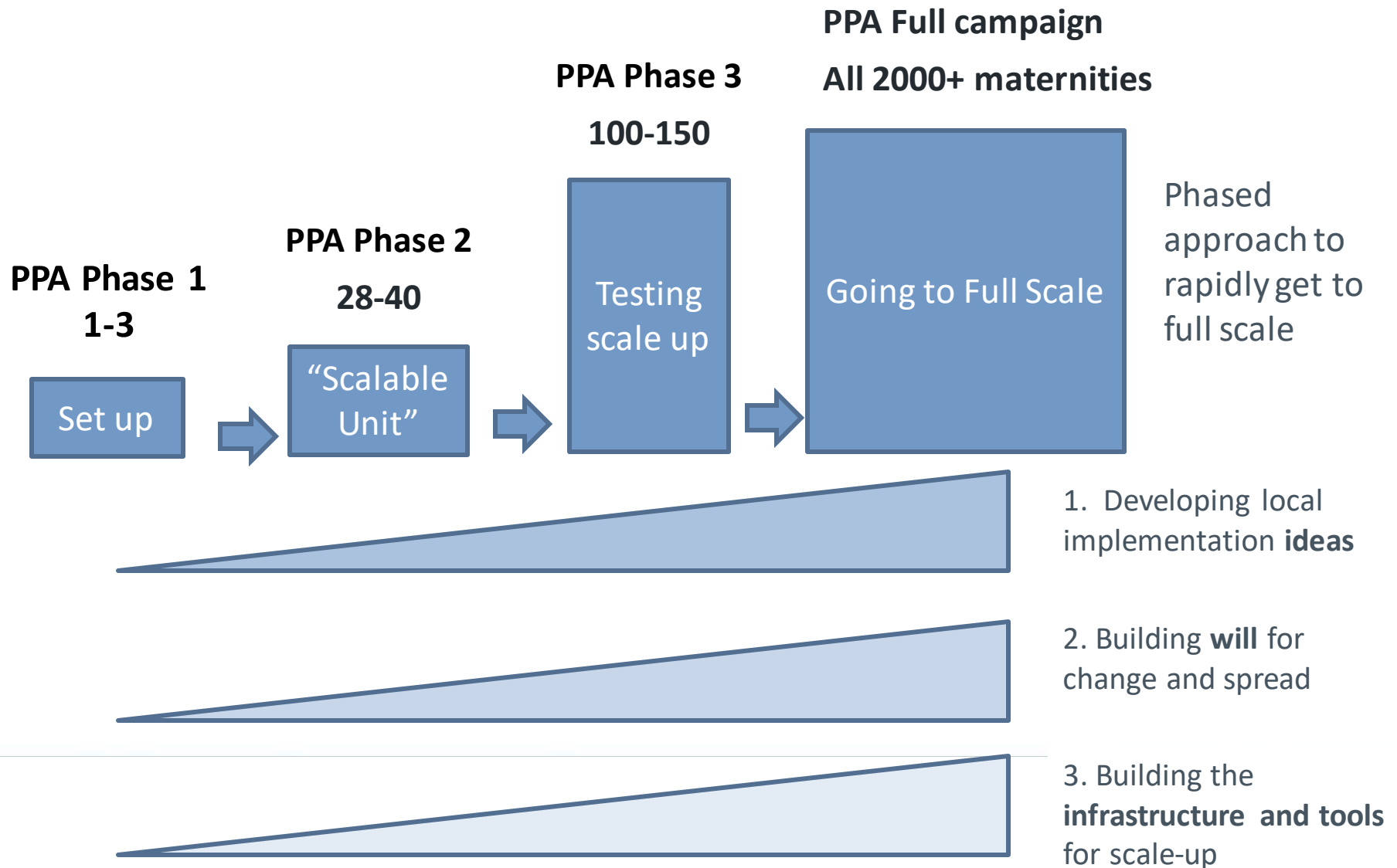
Prolonged  
lithotomy  
position

Early  
hospital  
admission

High  
doses of  
Oxytocin

**Kristeller  
maneuver**







# PROBLEM: EXCESS C-SECTION VAGINAL BIRTH NOT A POSITIVE EXPERIENCE

1. Aim

2. Content Theory

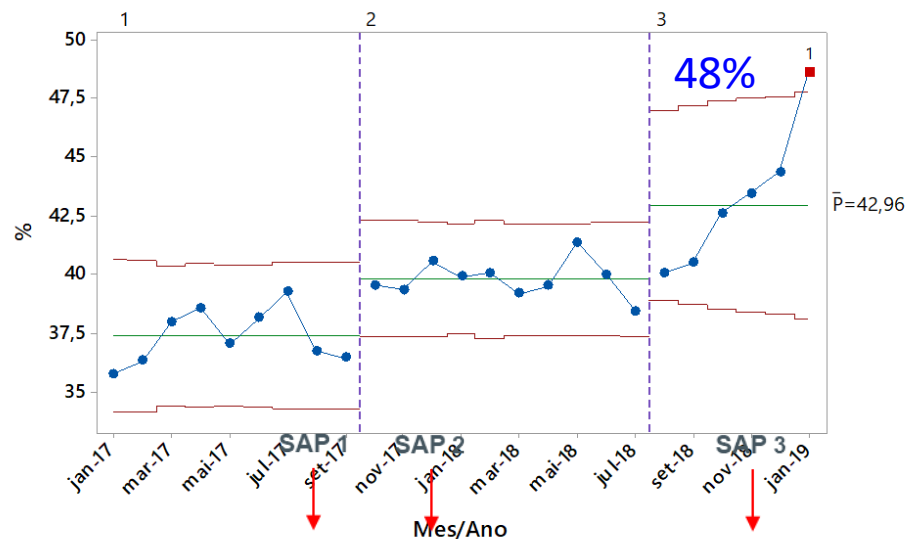
3. Execution  
Theory

4. Data,  
Measures

5. Comms,  
Dissem.

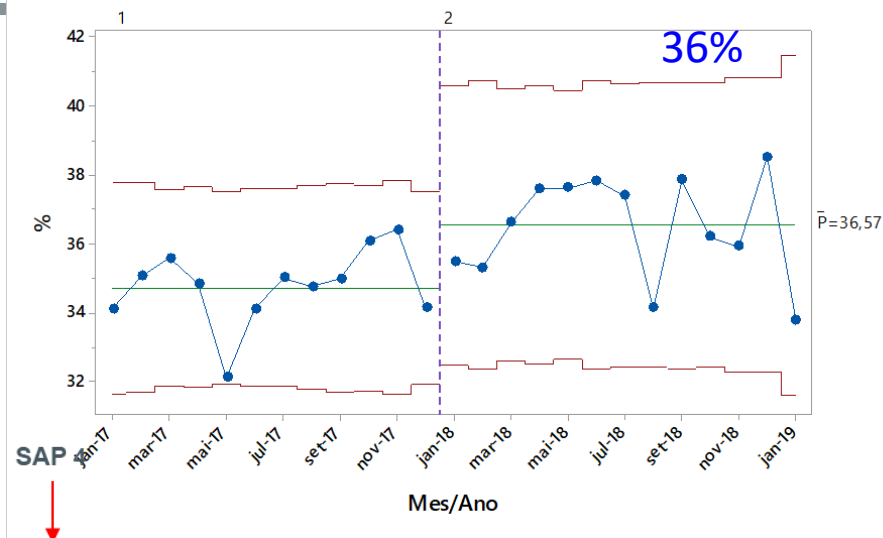
# % VB New hospitals

Percentual de Partos Vaginais nas gestantes com classificação Robson I a IV Grupo 1

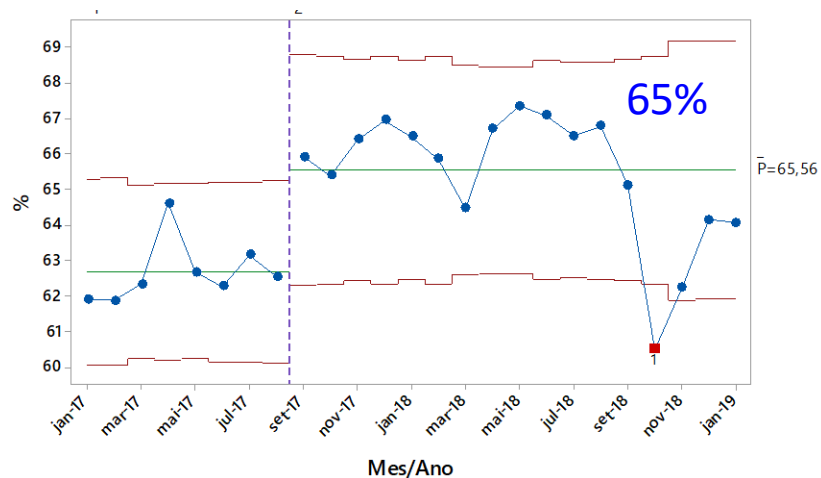


# % VB phase 1

Percentual de Partos Vaginais nas gestantes com classificação Robson I a IV Grupo 2



# % VB public hospitals



NPS from 83% to 87%



# External evaluation 12 hospitals



**5,215** births and  
≈ 5K interviews

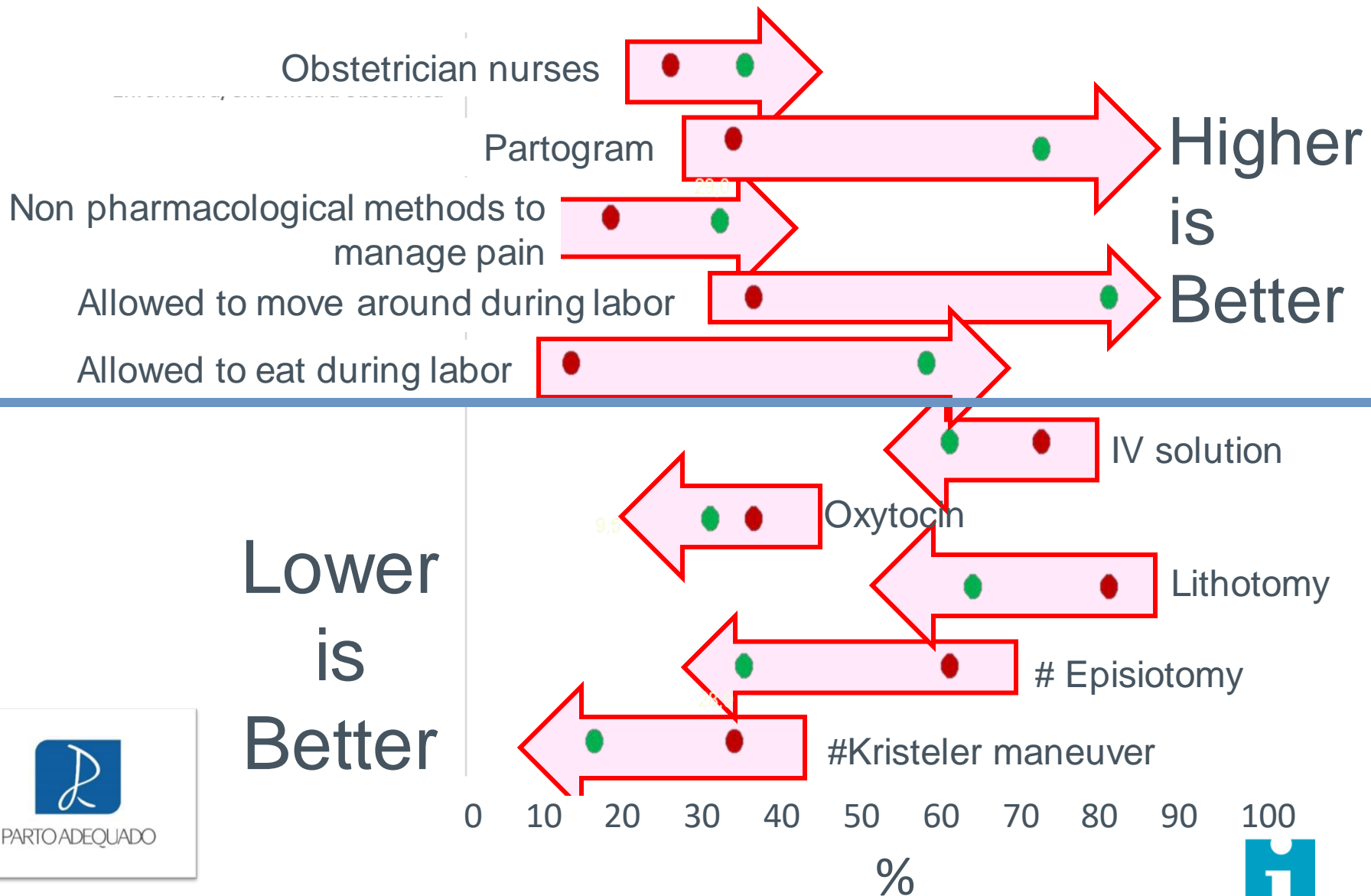
BILL & MELINDA  
GATES *foundation*



Jacqueline Alves  
Torres (ANS)



# Did care improve?





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# Ethiopia Health Care Quality Initiative

*Quality Improvement at Scale to Advance Global Health Equity*

**Hema Magge, MD, MS**  
**Executive Director, Ethiopia**  
**Institute for Healthcare Improvement**

**Boston Children's Hospital**  
**Brigham and Women's Hospital**

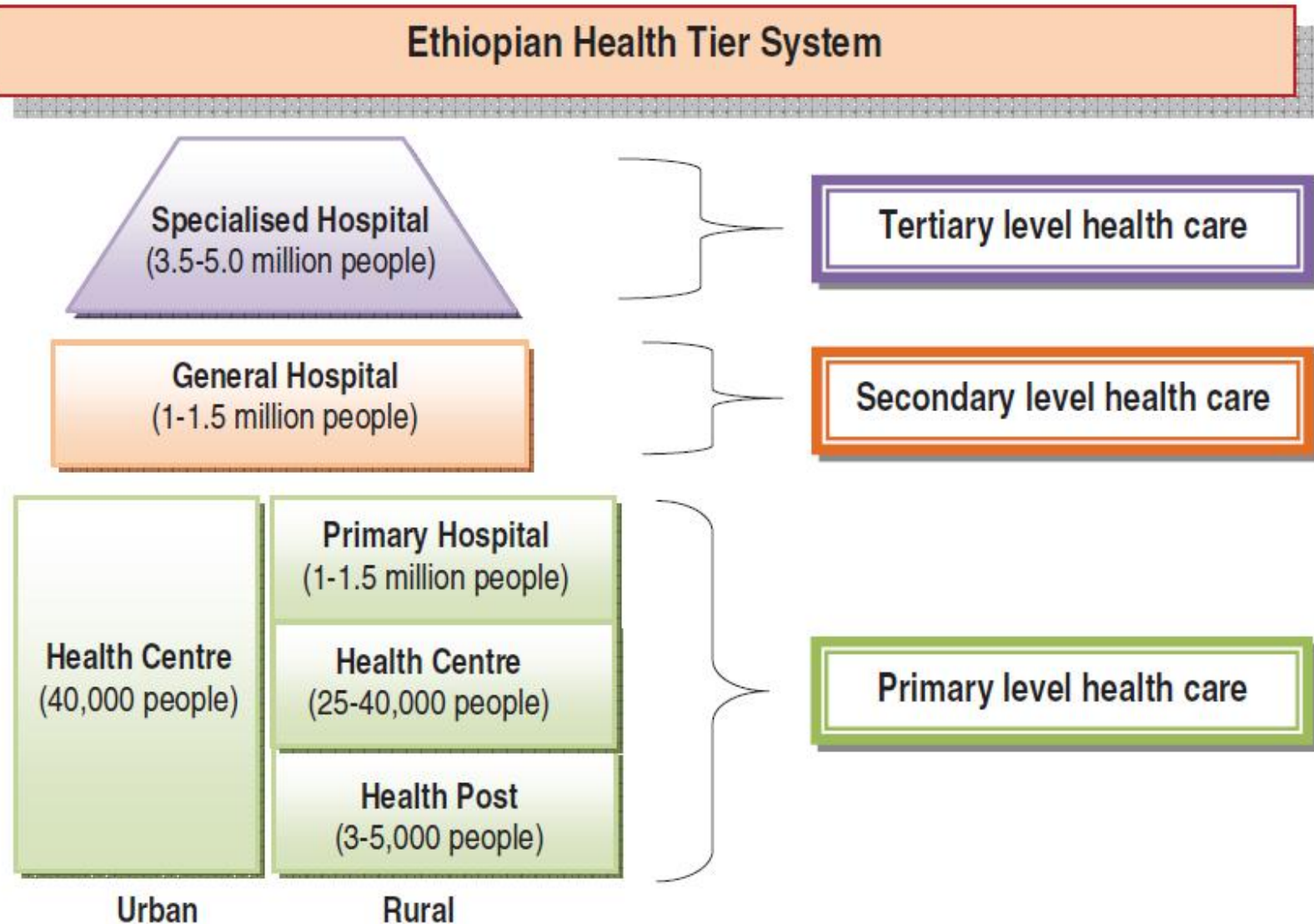


# Ethiopia Country Context

- **Total Population, 2017:**  
94,228,000
- **GDP per capita, 2017:**  
US\$660
- **Neonatal Mortality, 2016:** 29 per 1000 live births
- **Maternal Mortality, 2016:** 412 per 100,000 live births
- **Facility delivery: 26%**



# Ethiopian Health Care System



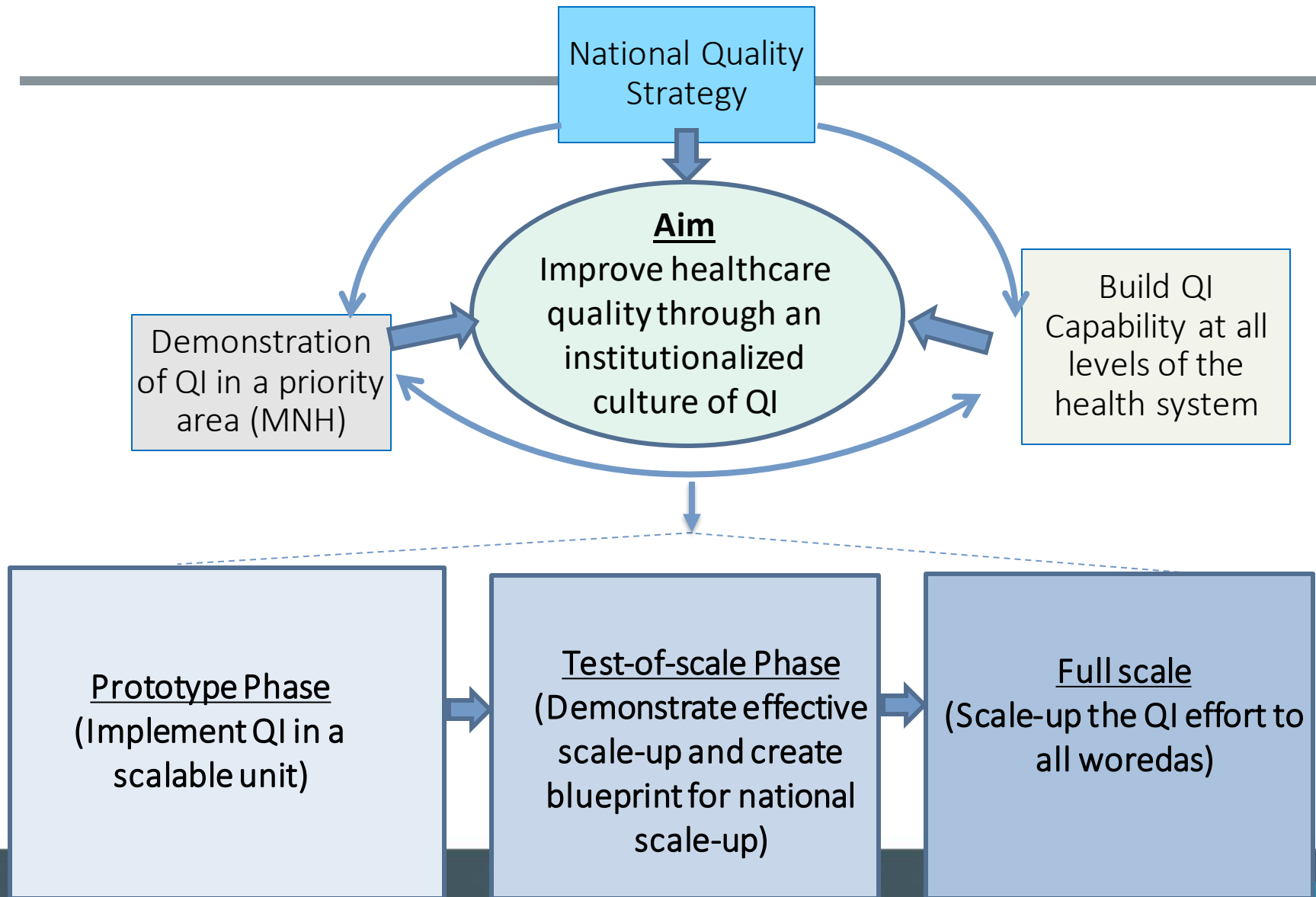
# The Quality Gap in Maternal Newborn Health

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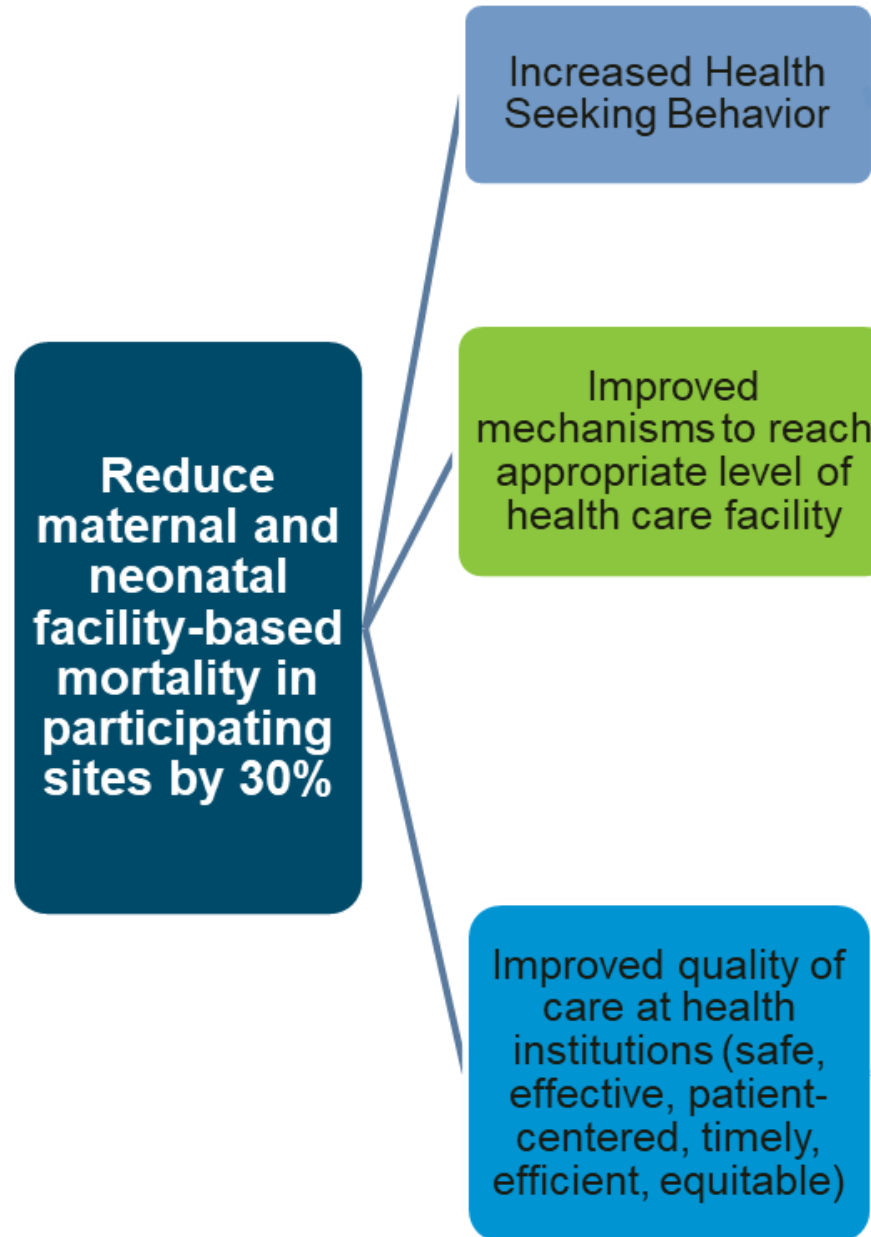
- Ethiopia decreased child mortality in Ethiopia by 2/3 between 1990 and 2015, thus achieving Millennium Development Goal 4
  - Critical progress in access and coverage
- However, rates of child, neonatal and maternal mortality remain unacceptably high
- Further progress will require more system-level change
  - Across all levels of health system
  - Across the MNH continuum of care
  - Move beyond coverage → high quality, patient-centered, equitable care



# Ethiopia Health Care Quality Initiative Design Framework

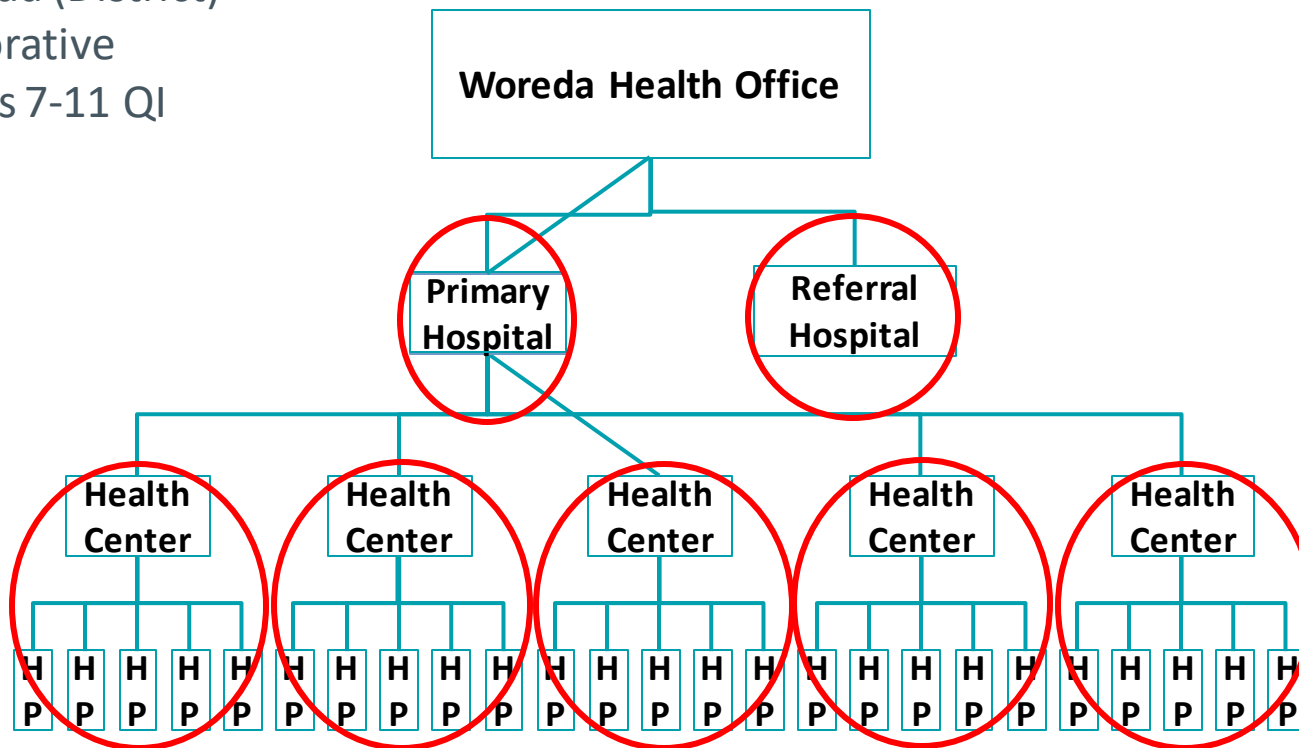


# MNH Collaborative Driver Diagram



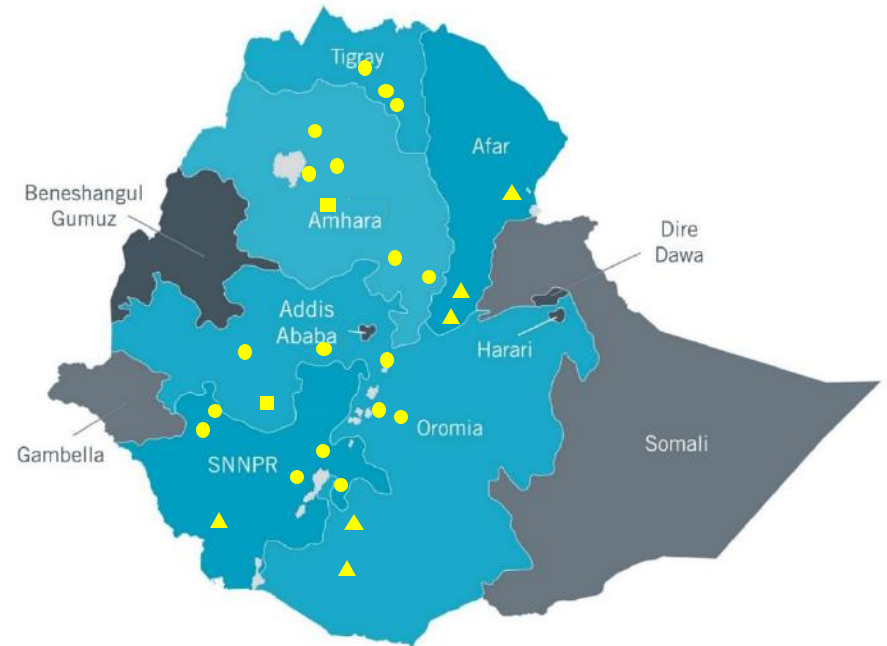
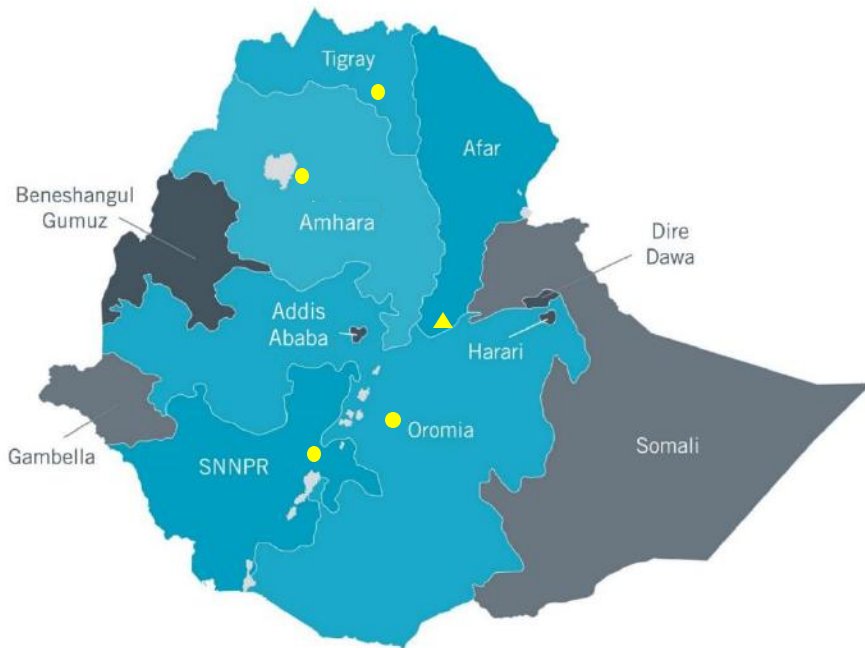
# The Collaborative Unit: What is Scalable?

1 Woreda (District)  
Collaborative  
includes 7-11 QI  
teams



# Phased Approach (18-month Learning Collaboratives)

Prototype Phase → Test-of-Scale Phase



**Key:**



= Agrarian



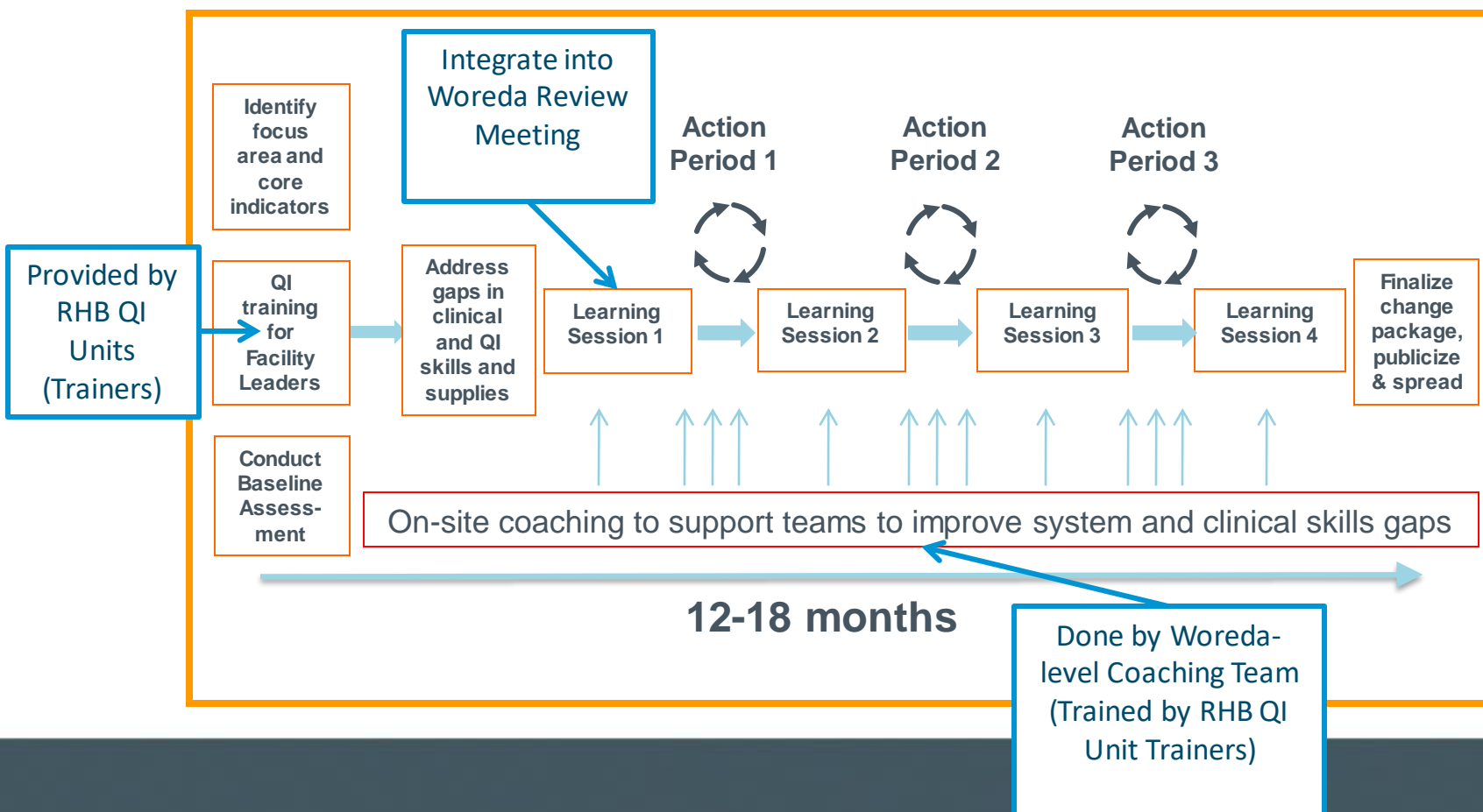
= Urban



= Pastoral

# Woreda Learning Collaborative Design: In Support of MOH National Plan

*Adjustments for Test-of-Scale Phase to integrate collaborative activities into existing structures, build ownership and ensure sustainability:*



# Progress to Date: Prototype Phase

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- Capability Building:
  - >200 health facility staff and managers trained in QI
  - National QI Training program by the FMoH and RHBs will lead scale up
- Learning Collaboratives:
  - 4 prototype collaboratives, >100 facilities completed
  - Established primary hospital neonatal units
  - Introduced novel respectful maternity care module using patient testimonials to inspire change idea testing
  - Change package completed and spread

● \*NOTE: these activities are largely supported through MACP funds.



QI coaching and clinical mentorship with woreda health officer



Patients teaching providers



Task shifting of syphilis testing from lab techs to nurses when no lab tech staffed

## Changes

Support NICU establishment at Primary Hospitals



Leverage the "Pregnant women's conference" platform to engage communities



Teff and maize grown to sell and purchase maternity privacy screens, food for women in maternity waiting homes

Strengthen patient-provider communication

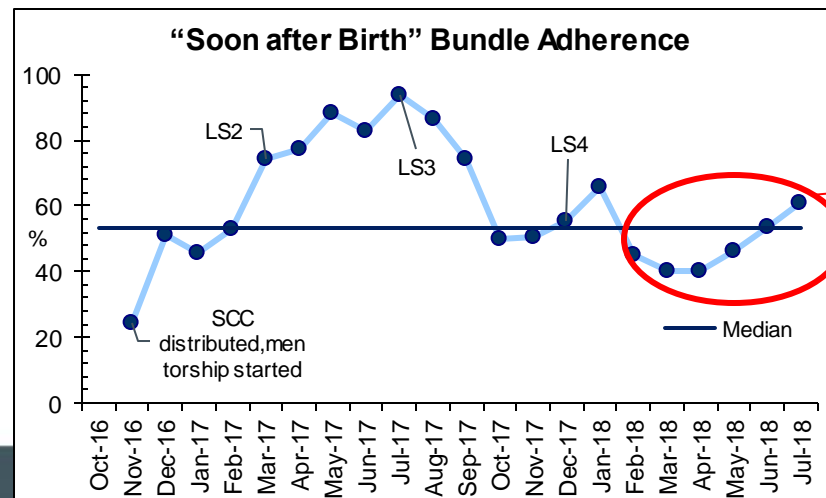
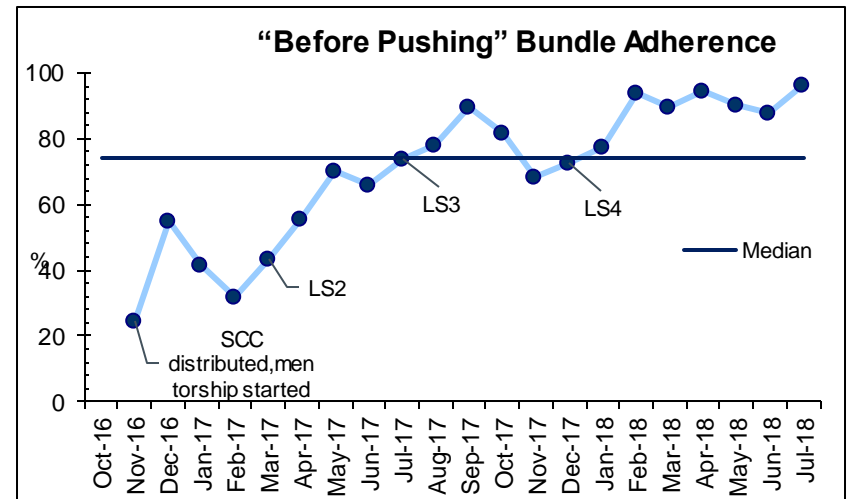
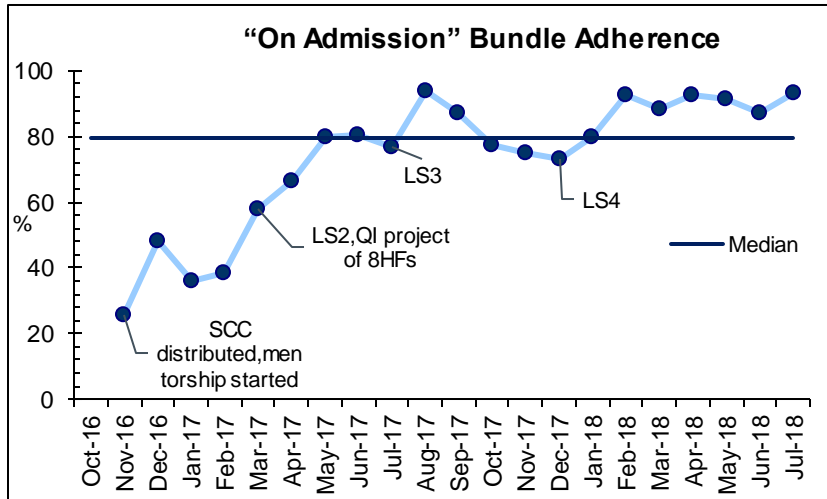


Mothers in Learning Sessions and QI teams



Improve service quality and comfort of maternal waiting homes

# Clinical Process: Delivery Care Bundles (All/None)



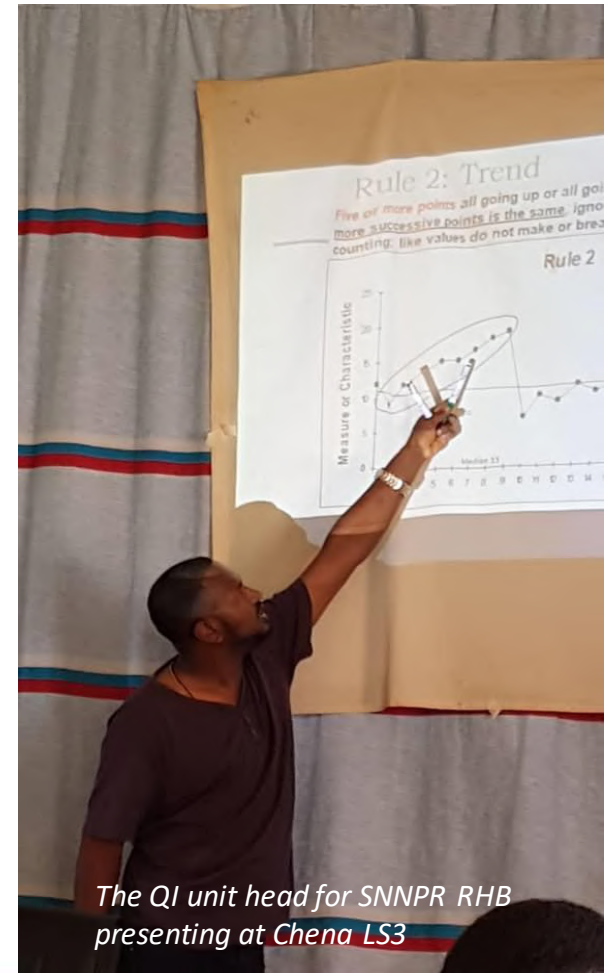
Exploring root causes of stock-out of Vitamin K as driver for low all/none bundle adherence

# Test-of-Scale Collaboratives

- 21 test-of-scale (TOS) collaboratives underway
- Trained > 600 more health workers and managers
- District improvement in core indicators



*A health extension worker sharing her experience using QI, Tigray region*



*The QI unit head for SNNPR RHB presenting at Chena LS3*

# Learning to Date

- Enabling factors:

- Co-design with FMoH to align with Ethiopia Health Sector Transformation Plan
- Adapted collaborative design with clinical support integration
- Integration of experiential quality and community engagement

- Challenges to improvement:

- Fragility of basic health system infrastructure
- Data Quality
- Contextual factors: cholera, flooding, draught, security concerns



# Thank you!

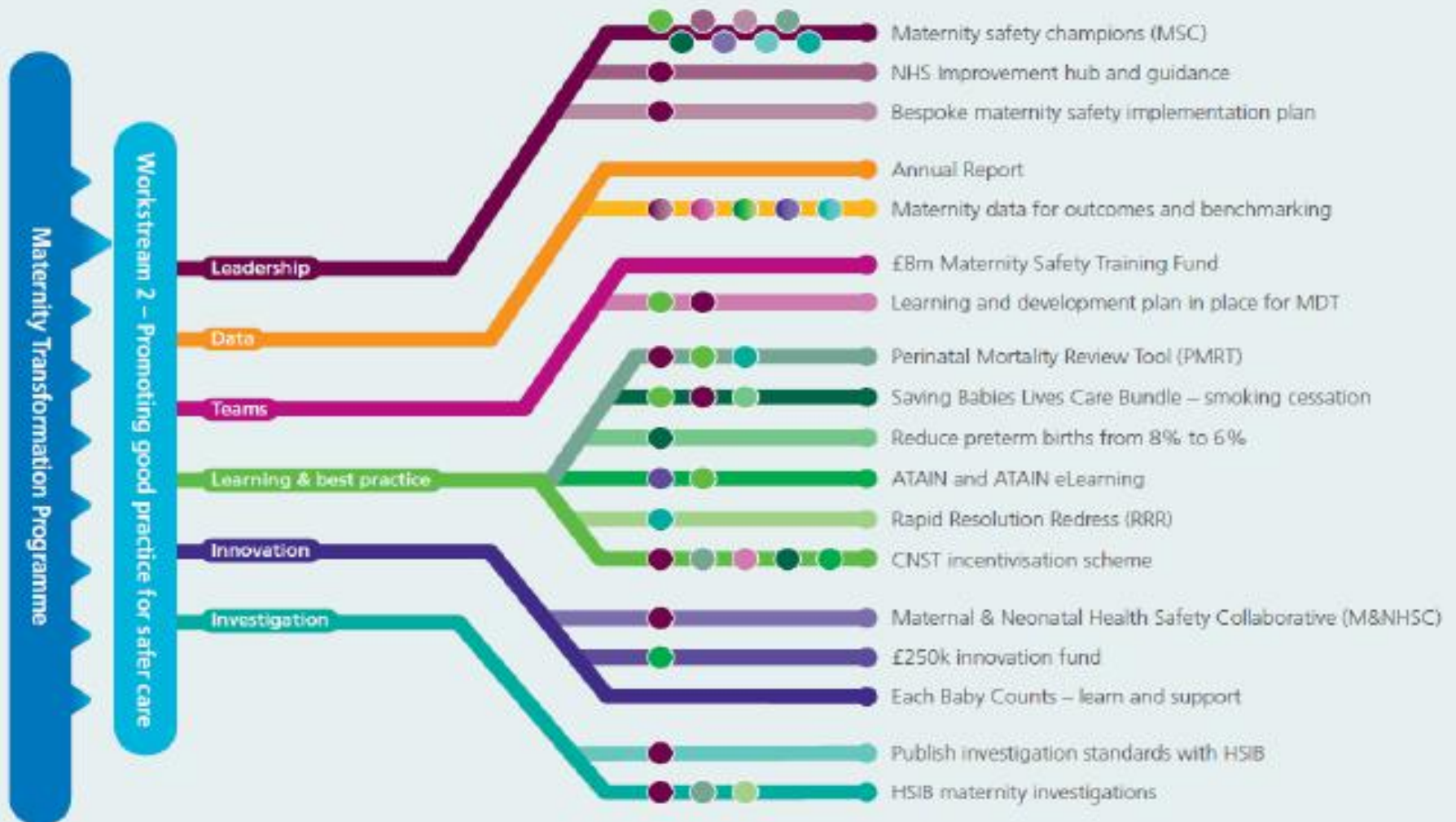


# National maternal and neonatal safety collaborative

 @MatNeoQI  
[improvement.nhs.uk](https://improvement.nhs.uk)

**NHS**  
Improvement





To improve outcomes and reduce unwarranted variation by providing a safe, high quality healthcare experience for all women, babies and families across maternity care settings in England.

Reduce the rate of stillbirths, neonatal death and brain injuries occurring during or soon after birth by 20% by 2020

Improve the proportion of smoke free pregnancies

Improve the optimisation and stabilisation of the very preterm infant

Improve the detection and management of diabetes in pregnancy

Improve the detection and management of neonatal hypoglycaemia

Improve the early recognition and management of deterioration during labour & early post partum period

Creating the conditions for a culture of safety and continuous improvement

Develop safe and highly reliable systems, processes and pathways of care

Improve the experience of mothers, families and staff

Learn from excellence and harm

Improving the quality and safety of care through Clinical Excellence



# What is the ambition of the collaborative?

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By 2020 each Trust, local maternity system and network should have:

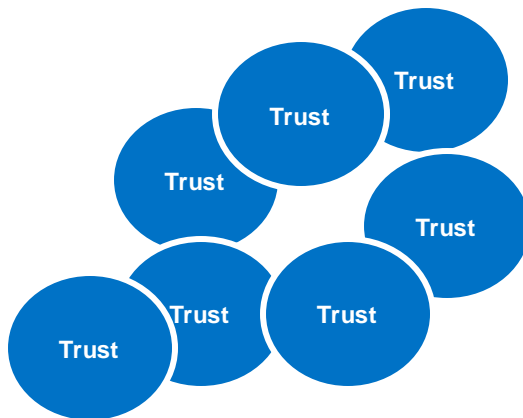
- significant capability (& capacity) for improvement
- detailed knowledge of local cultural issues
- developed a locally sensitive improvement plan
- made significant improvement to local service quality and safety
- data to share with their board, staff and commissioners that reflect these improvements

...to create the conditions for a safety culture and a national maternal and neonatal learning system

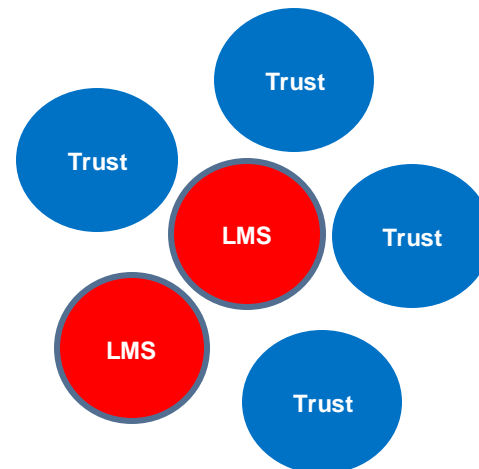
**Controlled  
pilot  
population**

**Relying on  
Regional  
Infrastructure**

### **National Learning Set** (Trust Improvement)



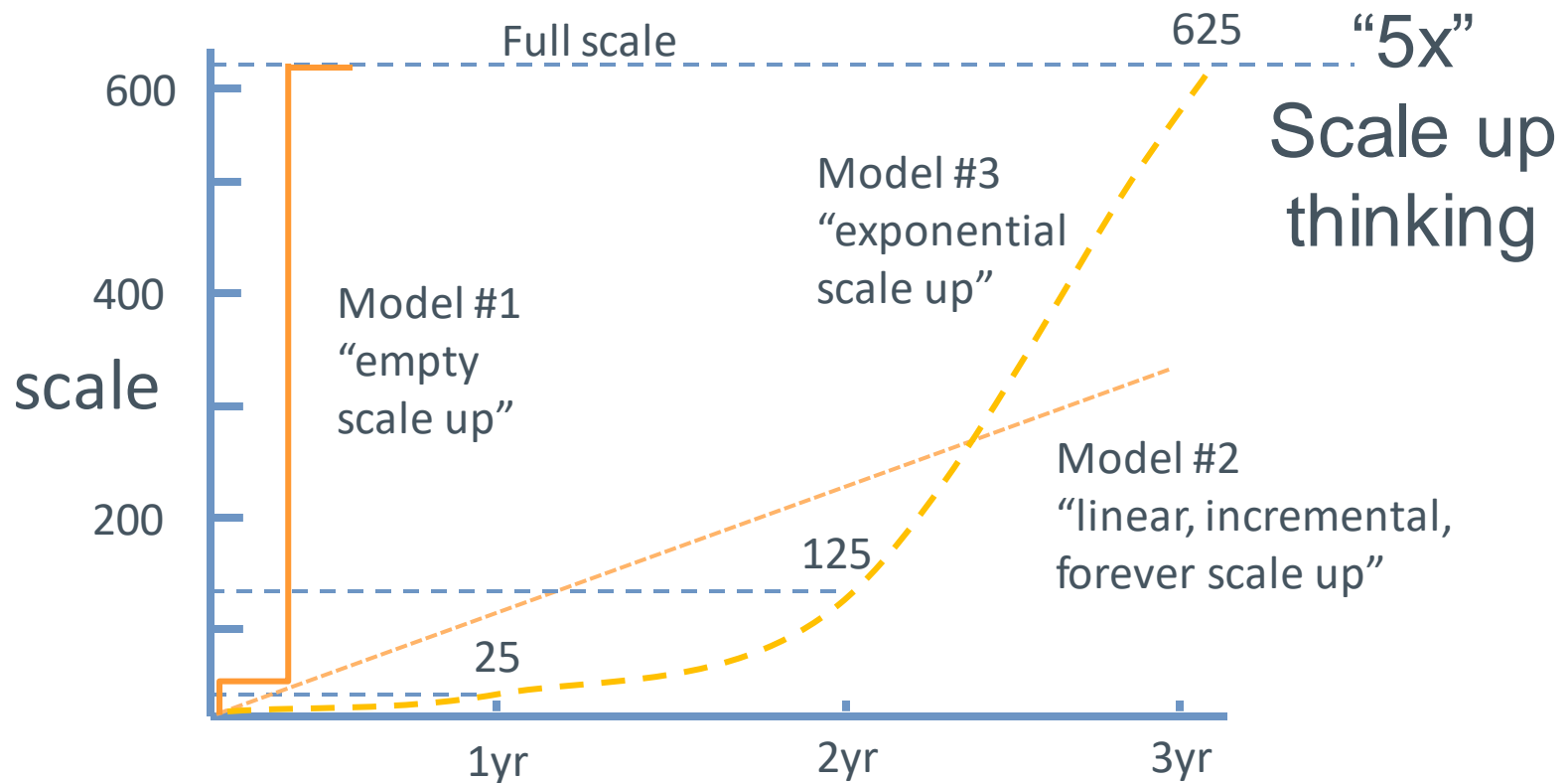
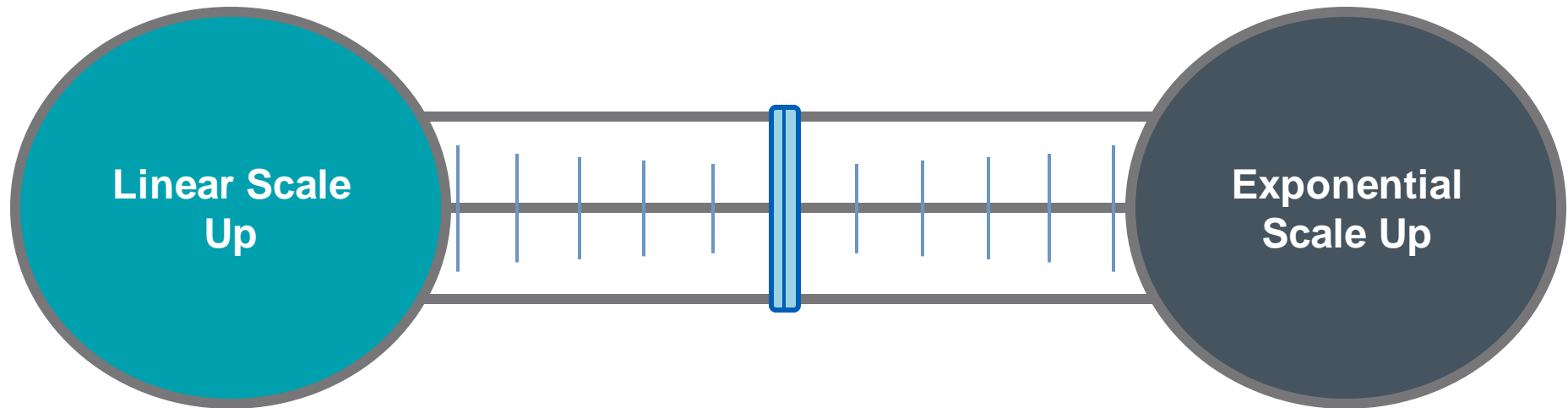
### **Local Learning Systems** (Trust & System Improvement)



**Start before  
you're ready**

**Start when  
you've got all  
the pieces in  
place**





# Over to you....

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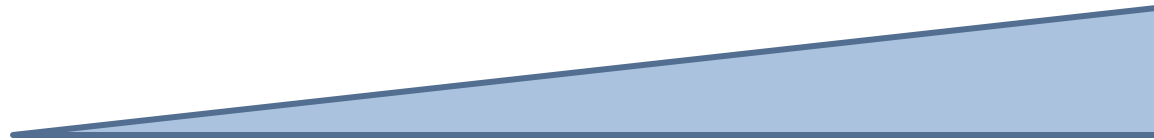
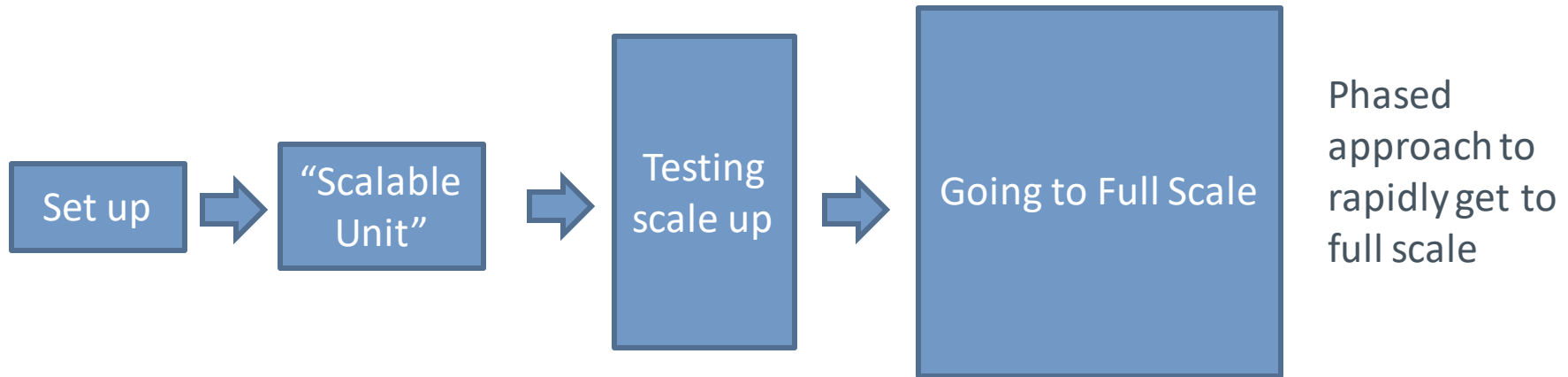
What are the main enablers and challenges of getting to full scale identified in these 3 case studies?

5 min discussion  
5 min report out

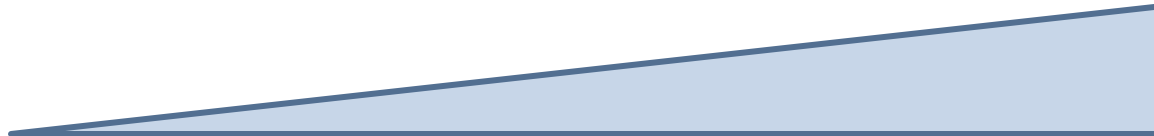


# The IHI Scale-up Framework

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1. Developing local implementation **ideas**



2. Building **will** for change and spread



3. Building the **infrastructure and tools** for scale-up

# Summary of Enablers and Challenges

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- System strength, capabilities and context
- Leadership engagement
- Theory of change
- Partnerships that we can leverage
- Contextualizing the implementation approach
- Measurement or evaluation strategy

