# How do we achieve Quality, Coverage & Sustainability in Global Health Programming

*Pierre M Barker*

*Chief, Global Programs and Partnerships,*

*Institute for Healthcare Improvement*

*Clinical Professor, University of North Carolina at Chapel Hill*

**Institute for Healthcare Improvement**

# Definition of Quality: Coverage *and* Quality *and* Sustainability



A 2-part global aim…..

*"Attainment by* <u>*all peoples*</u> *of the* <u>*highest possible*</u> *level of health"*

# Definition of Quality: Coverage *and* Quality *and* Sustainability



A 3-part global aim…..

"*(Sustainable)* *Attainment by* *all peoples of* *the highest* *possible level* *of health*"

# Implementation that is Effective, Scalable and Sustainable:

1 Effective:  An Implementation and Improvement Method
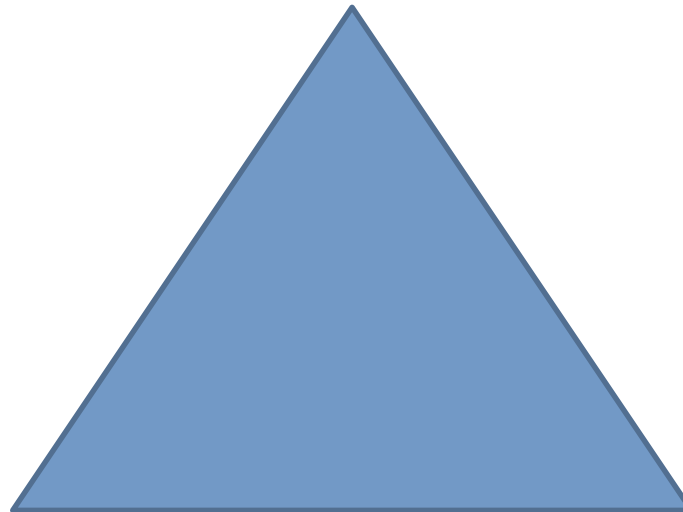
2 Scalable: A Phased Method for Scale up

3 Sustainable: Building local and national capability and ownership

# 1. Effective: Implementation and Improvement Method

**Will and Leadership:**
Something that matters.
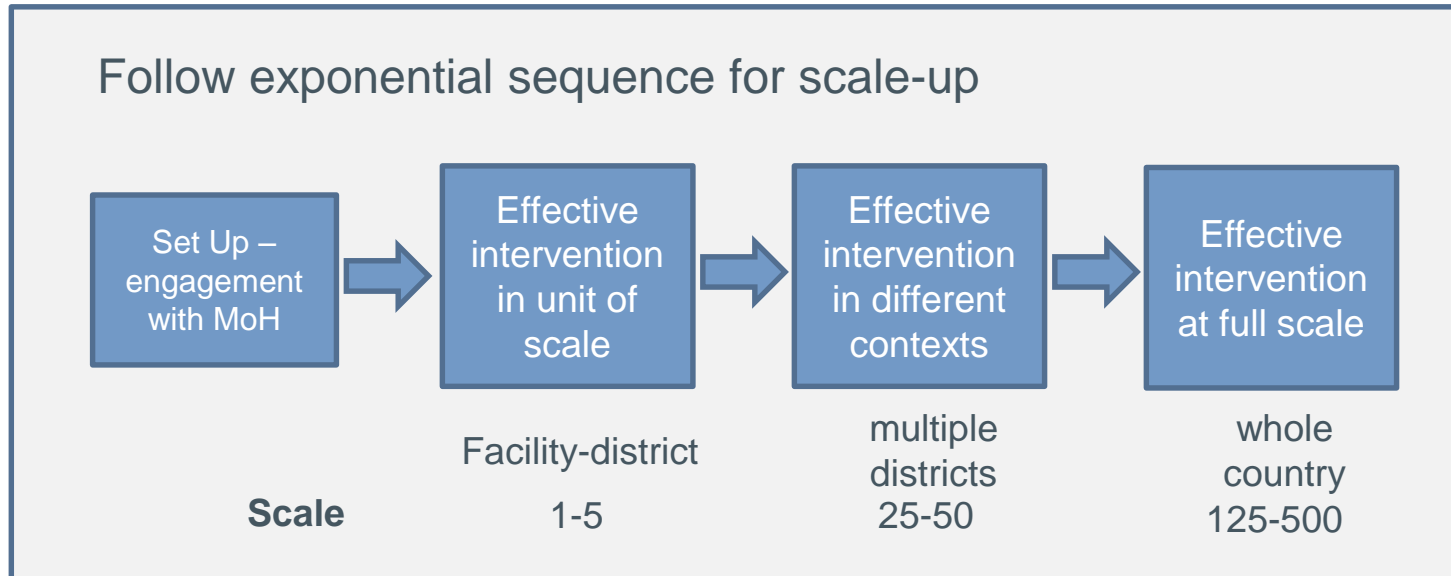Leadership that cares,
acts, facilitates

**Content Theory:**
Multifaceted actions
that drive evidence-
based clinical
interventions

**Implementation Plan:**
Learning System (data
feedback, testing of
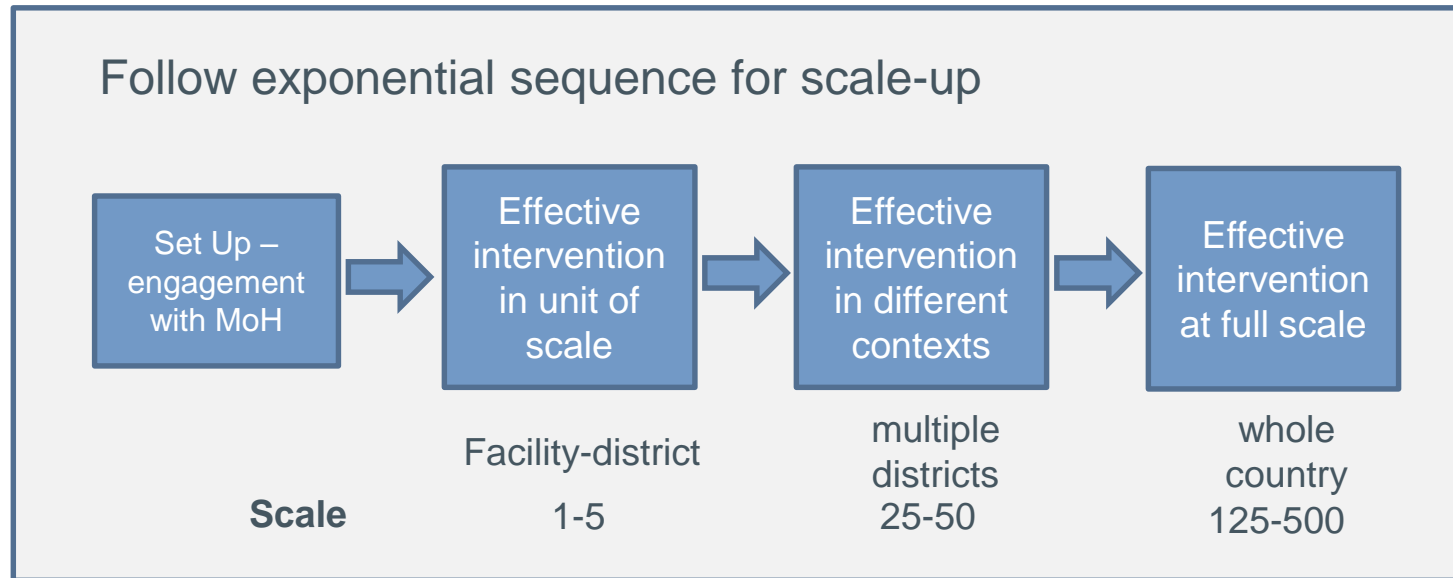local ideas,
collaboration, power
sharing)

# 2. Phased Scale-up Design

Follow exponential sequence for scale-up

| Set Up – engagement with MoH | → | Effective intervention in unit of scale | → | Effective intervention in different contexts | → | Effective intervention at full scale |

| **Scale** | Facility-district 1-5 | multiple districts 25-50 | whole country 125-500 |

# 3. Design for Sustainability

Follow exponential sequence for scale-up

| Set Up – engagement with MoH | → | Effective intervention in unit of scale | → | Effective intervention in different contexts | → | Effective intervention at full scale |

| **Scale** | | Facility-district 1-5 | | multiple districts 25-50 | | whole country 125-500 |

Build infrastructure for scale-up

Build enabling environment for scale-up

Barker, Reid, Schall. *A framework for scaling up health interventions*. Implementation Science 2016

# Role of government and non-Governmental supports (NGO, funders, private sector, etc)



Learning System

Effective intervention → Effective intervention in unit of scale → Effective intervention in different contexts → Effective intervention at full scale

facility | district | multiple districts | whole country
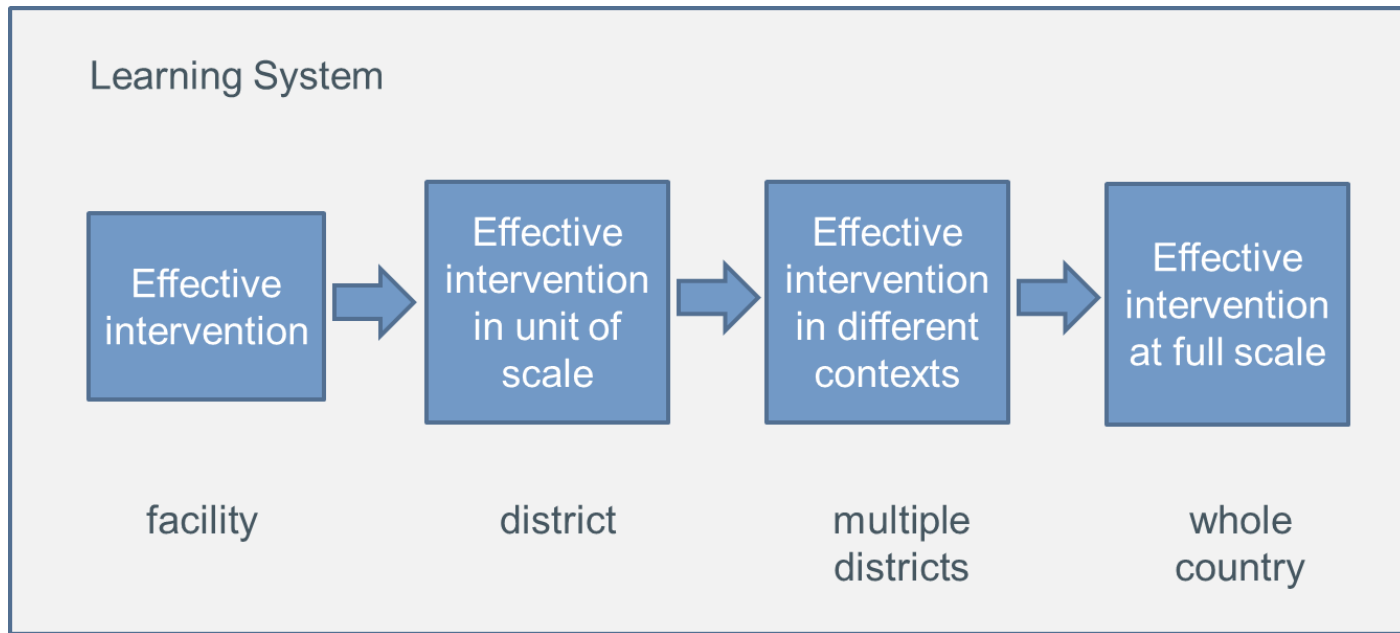
? Role of Government

? Role of Non-Government actors (NGOs, private sector, funders, etc)

# Effectiveness *and* Coverage *and* Sustainability

4 case studies on C, Q &S:

- South Africa – Scale up of PMTCT
- Ghana – Scale up of quality MCH services
- Malawi – Demonstration of comprehensive Maternal Newborn services
- Ethiopia – Government led national scale-up of Maternal Newborn Services

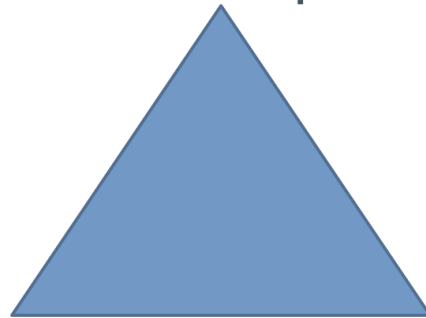Global initiative supported by WHO QoC MN standards and implementation guidance

# South Africa: PMTCT program





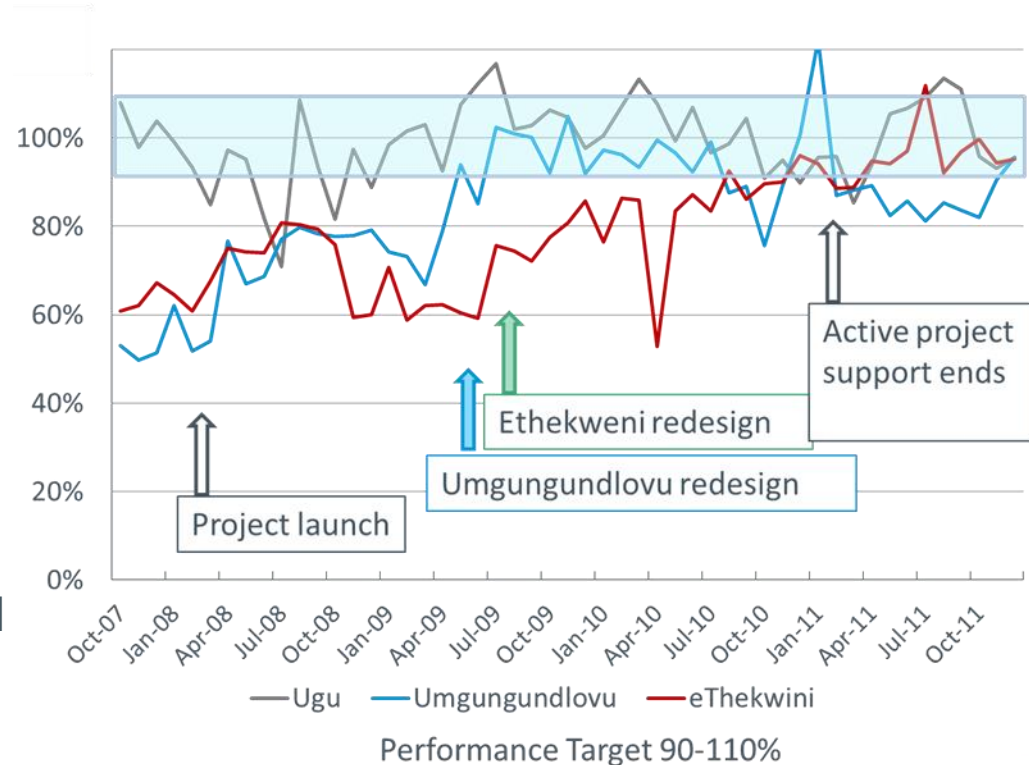**Will and Leadership:**

**Content Theory:**

**Implementation Plan:**

# South Africa: PMTCT program

2007

Step 1: Demonstration and learning in three Districts (existing administrative unit that could be scaled)
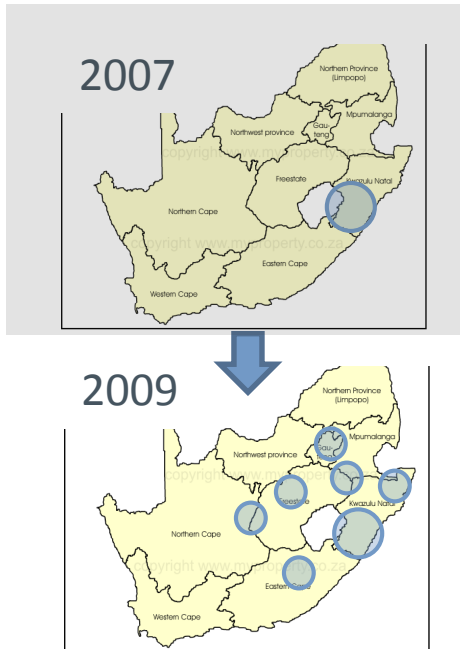
- NGO-led QI intervention

- Direct engagement of District Managers

- Got Attention of Regional and National Program managers
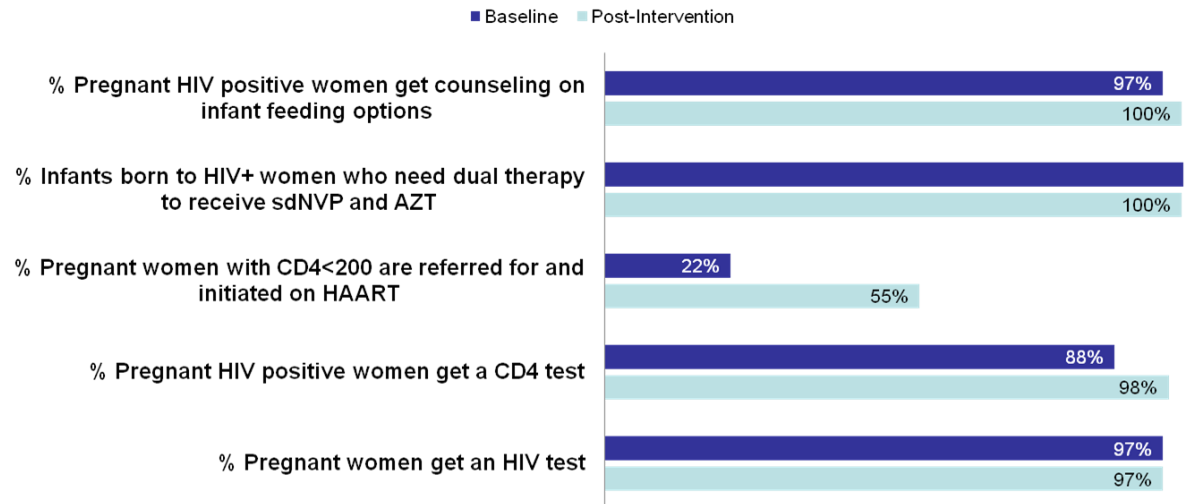
- Built credibility of method



Project launch

Umgungundlovu redesign

Ethekweni redesign

Active project support ends

— Ugu  — Umgungundlovu  — eThekwini

Performance Target 90-110%

# South Africa: PMTCT program



2007

2009

Test of Scale-up: "The Accelerated Plan" 5 provinces, 7 Districts, 161 facilities

■ Baseline  ■ Post-Intervention

% Pregnant HIV positive women get counseling on infant feeding options
- Baseline: 97%
- Post-Intervention: 100%

% Infants born to HIV+ women who need dual therapy to receive sdNVP and AZT
- Post-Intervention: 100%

% Pregnant women with CD4<200 are referred for and initiated on HAART
- Baseline: 22%
- Post-Intervention: 55%

% Pregnant HIV positive women get a CD4 test
- Baseline: 88%
- Post-Intervention: 98%

% Pregnant women get an HIV test
- Baseline: 97%
- Post-Intervention: 97%

- Government-led, IHI-designed, NGO supported QI intervention

- Incorporated learnings and tools from demonstration sites into national protocols and DHIS

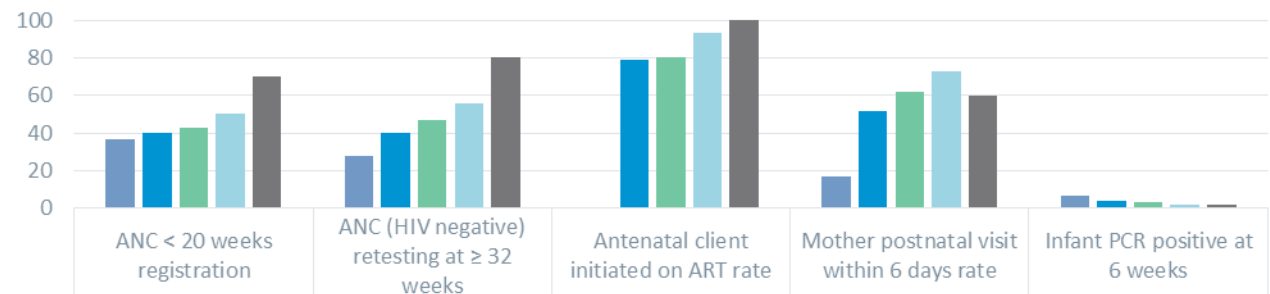- Built confidence of Regional and National Program managers and planners

# South Africa: PMTCT program



2007

2009

2010
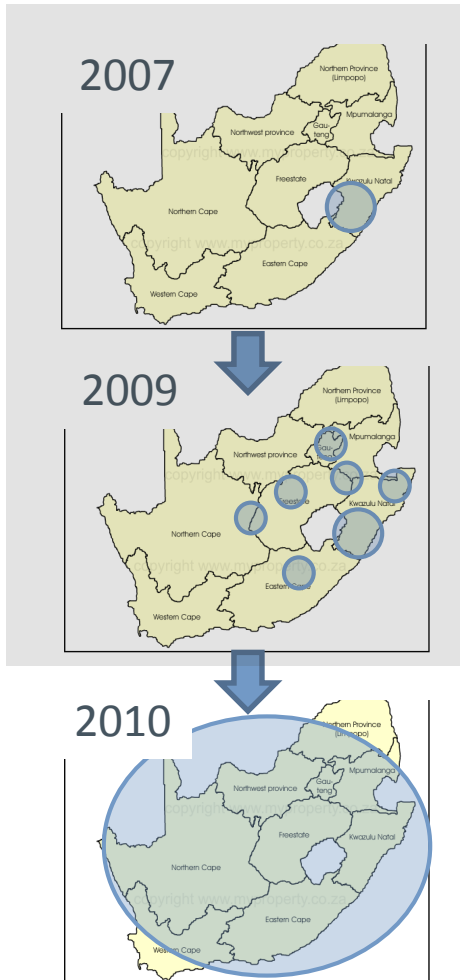
Going to Full Scale: 12 provinces, 52 Districts, 4,200 health facilities
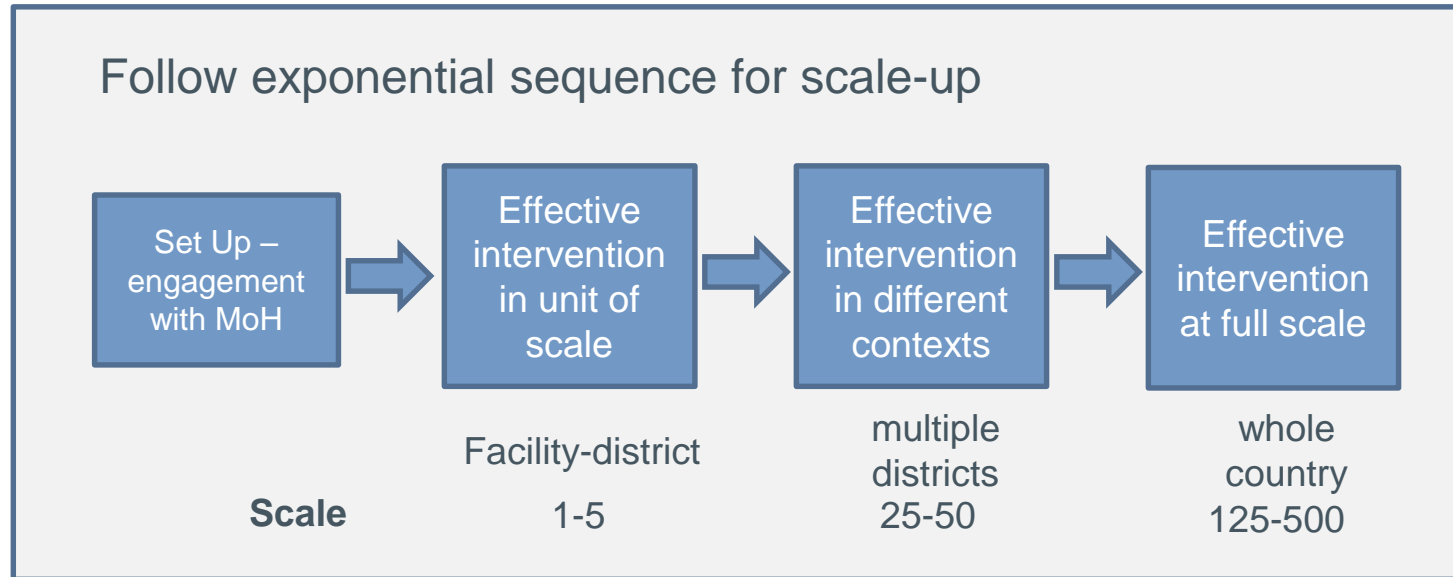
## PMTCT Cascade National



- Government-led, govt-designed, NGO-supported scale up

- Learnings and tools from demonstration sites incorporated into standard work

# S Africa PMTCT: transfer of ownership

Follow exponential sequence for scale-up

Set Up – engagement with MoH → Effective intervention in unit of scale → Effective intervention in different contexts → Effective intervention at full scale

| | Facility-district | multiple districts | whole country |
|---|---|---|---|
| **Scale** | 1-5 | 25-50 | 125-500 |

Government ownership/support of intervention

NGO ownership/support of intervention

# Ghana: Improving Outcomes for Under-5s

- IHI invited to support national scale up of U5 facility-community quality intervention

- Working through large faith-based network (minimal govt involvement in design)

- Used District as unit of scale

- Designed with Deming principles with full scale in mind
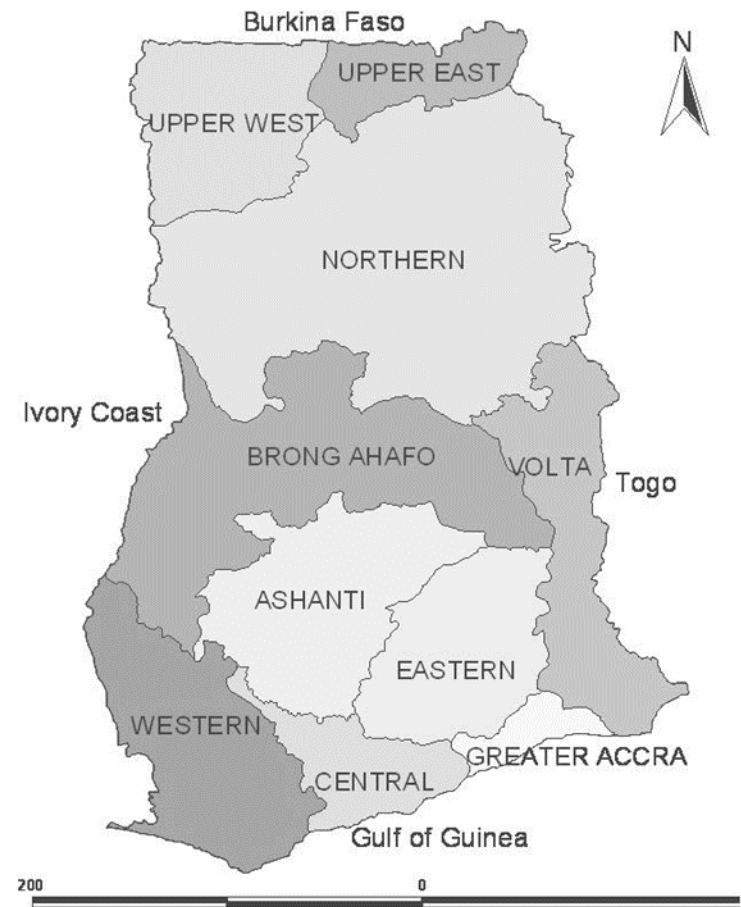
# Ghana: Improving Outcomes for Under-5s
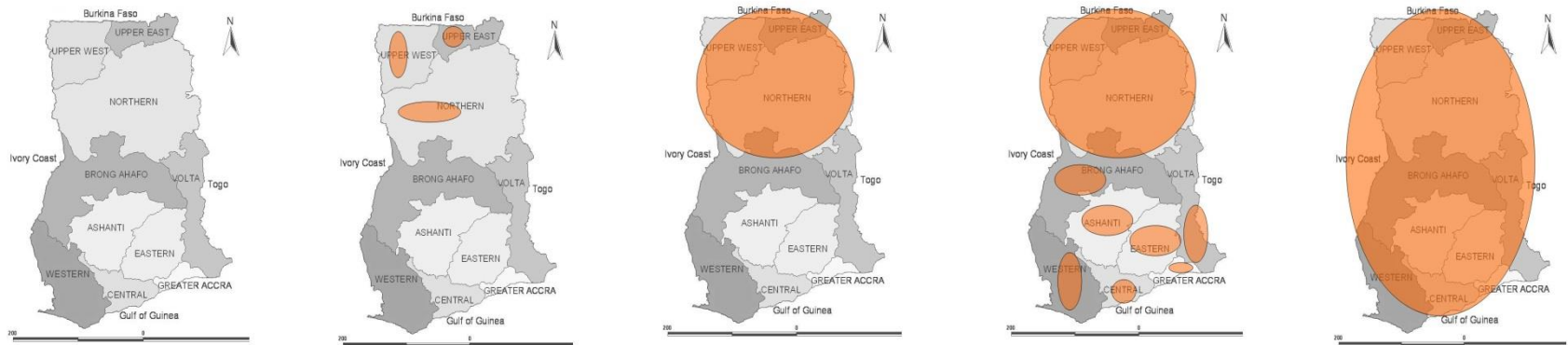


| | | | | |
|---|---|---|---|---|
| **Phase 0:** | **Phase 1:** | **Phase 2:** | **Phase 3:** | **Phase 4:** |
| Months -6 to 0 | 0– 9 | 10 - 27 | 19-39 | 34 – 51 |

Preparation
Building will
Baseline data

Piloting
Building will
Demonstration

Scale up, and piloting scale up methods

Piloting new areas of work
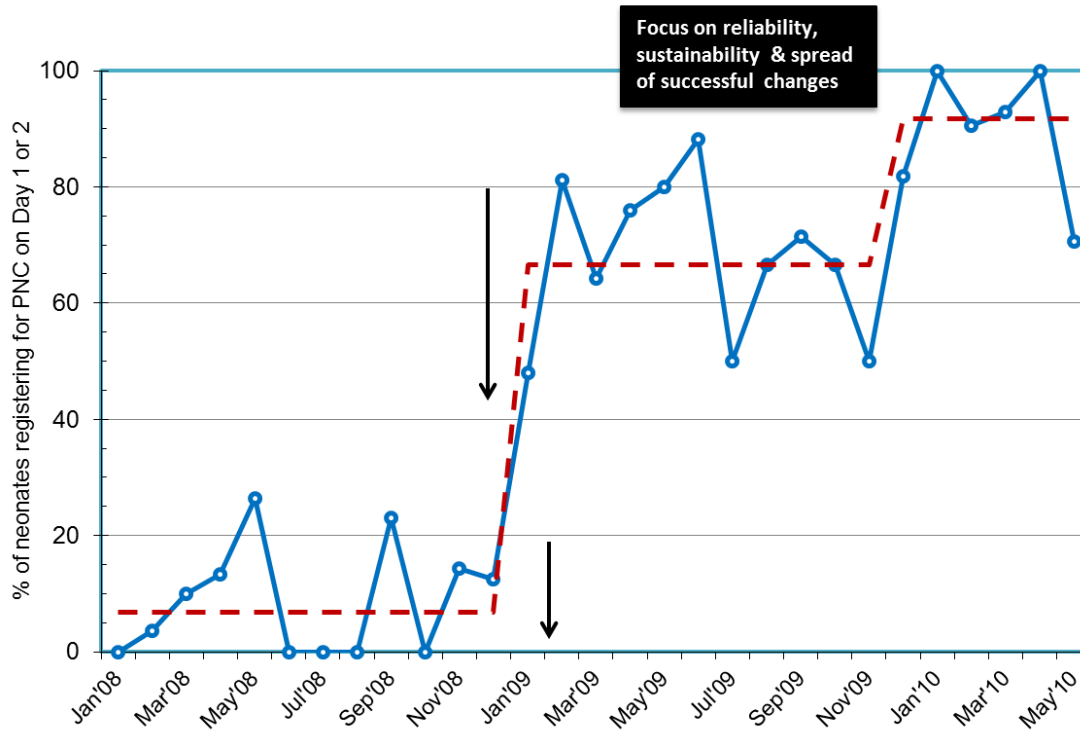
National Scale up

| Sub-districts with QI teams | 35 | 230 | 260 | 1800 |

# Ghana: Innovation Phase
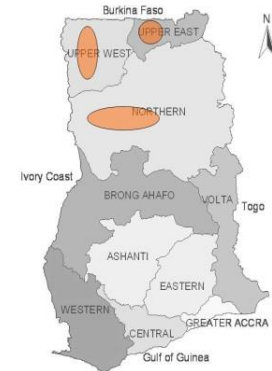
**Postnatal Care Coverage on Day 1 or 2 of life -
Samoa Sub district, Lambussie-Karne District, UWR**



Focus on reliability, sustainability & spread of successful changes

- Develop and test effectiveness of change ideas
- Build reliable data systems
- Build QI capability
- Building trust and confidence of managers and leaders in the method

# Ghana: Phase 2 – testing scalability



**Figure 4.** Wave 2 Improvement Collaborative Network – ANC Registration in First Trimester, Jan'09 to May'11
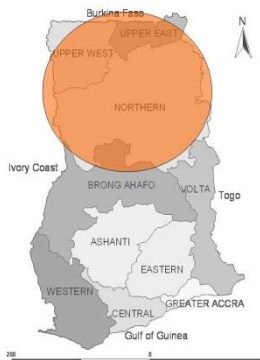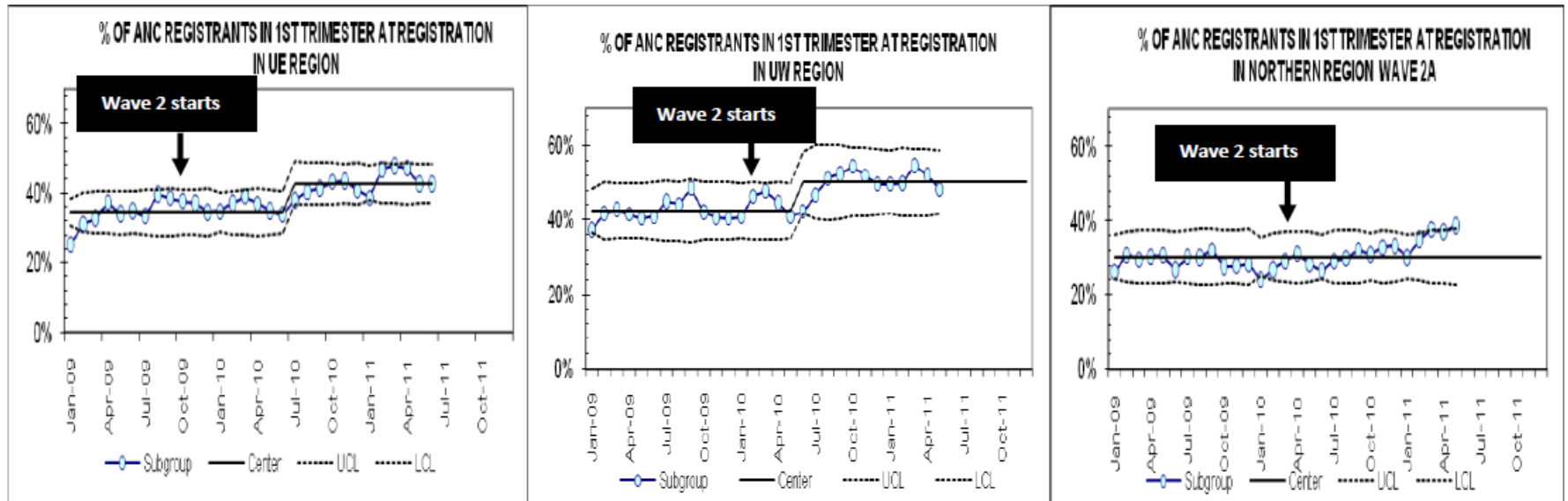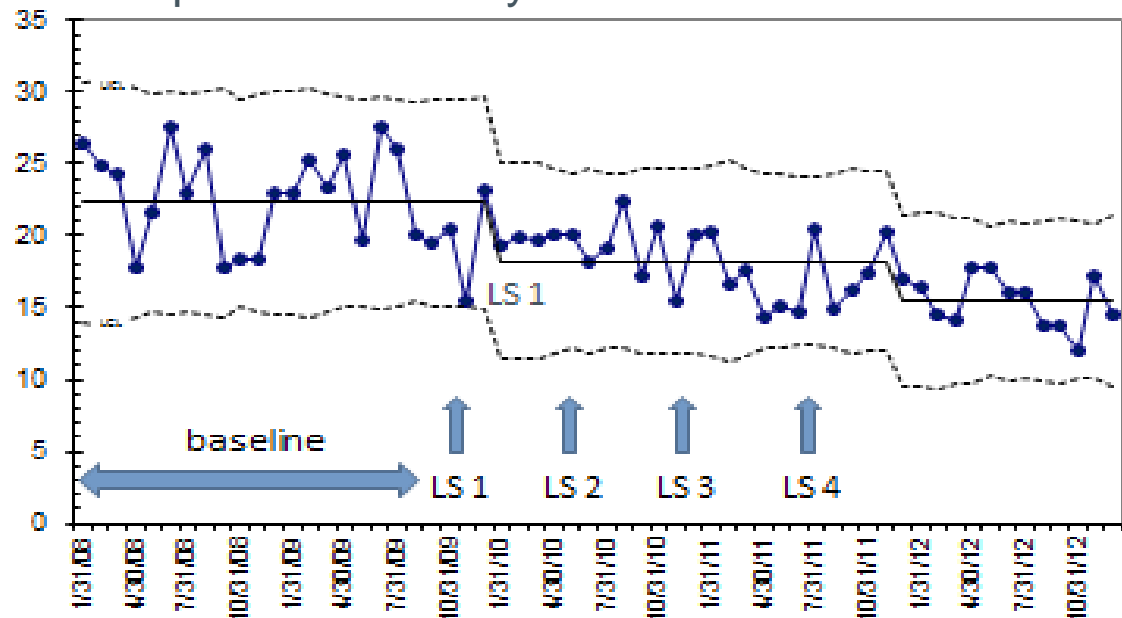
- Test scalability of changes (effectiveness during scale up)
- Build capability of NCHS and DoH district and regional managers and leaders
- Build reliable routine data systems
- Build trust and confidence of managers and leaders in the method
- Attract national attention

# Ghana: Improving Outcomes for Under-5s
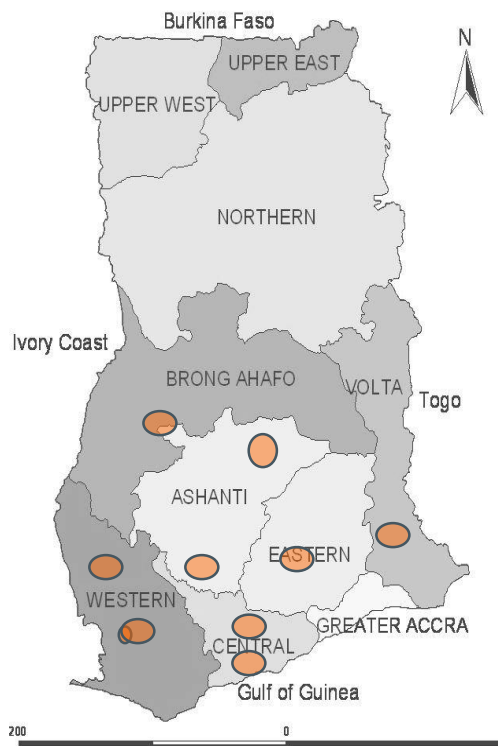


Hospital case-fatality for all under-5 admissions

- Test hospital-based interventions (not districts)
- Work in faith-based hospitals only for a new innovation phase - Scaled to all NCHS hospitals before going to govt hospitals
- Preparation for full scale in the south
- Build will and belief in the method
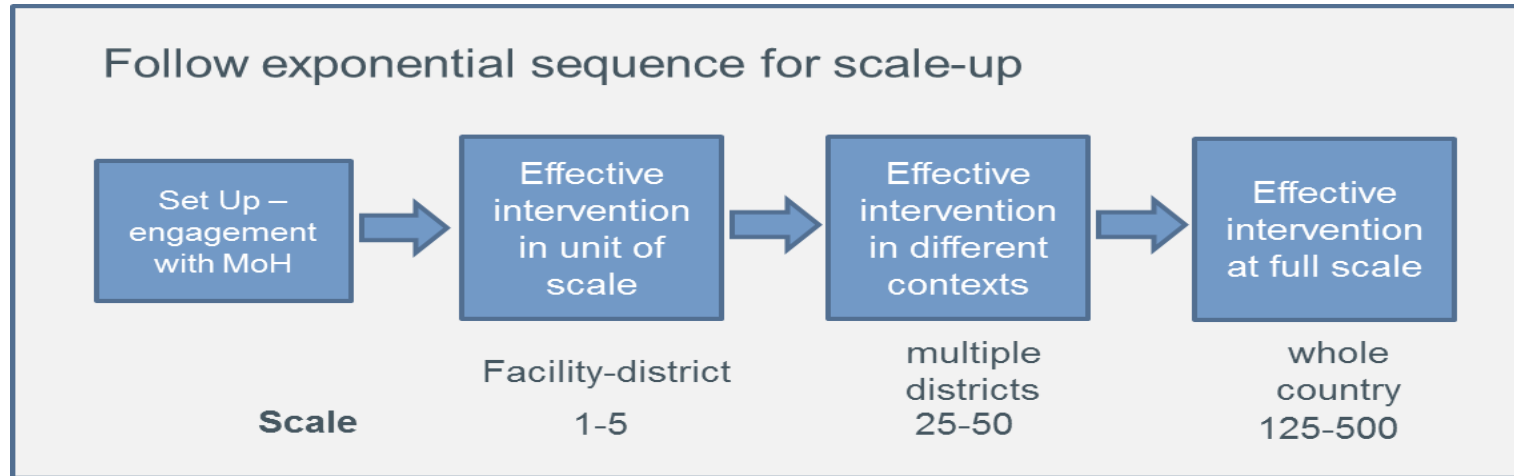
# Ghana: Going to Full Scale

Under 5 case fatality (/1000 admissions) for
175 hospitals in 7 southern regions
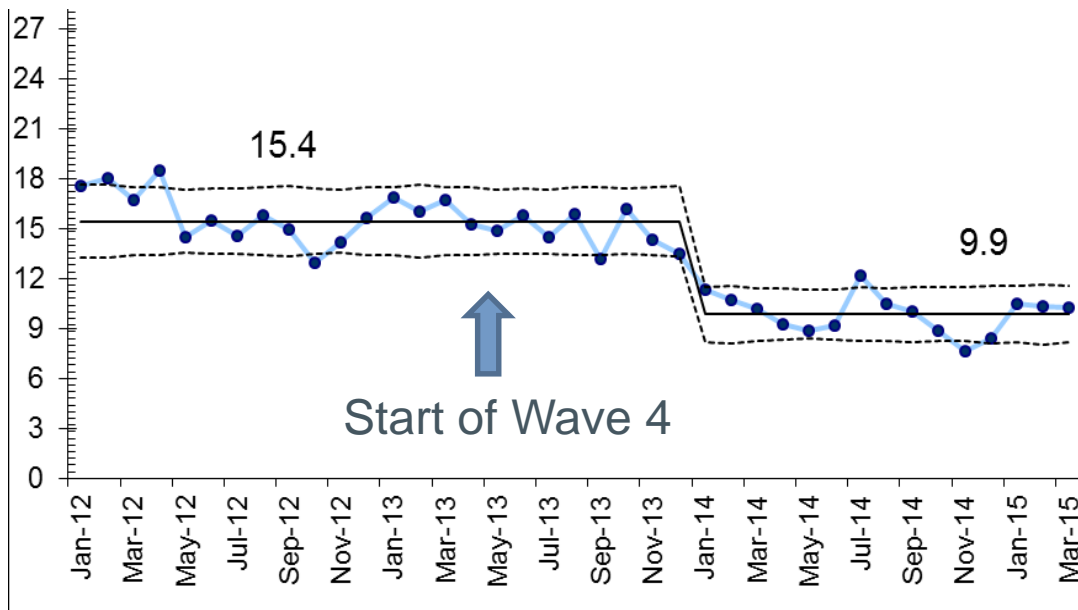


- Go to full scale (80% of all hospitals, 60% of district facilities)
- Major expansion of QI capability (>700 district quality mentors trained)
- Deep engagement with regional offices and district offices (all coaching and mentoring)
- Increasing interest from GHS and MoH
- Questions about sustainability

# Ghana: late transfer of ownership



Follow exponential sequence for scale-up

Set Up – engagement with MoH → Effective intervention in unit of scale → Effective intervention in different contexts → Effective intervention at full scale

Scale    Facility-district 1-5    multiple districts 25-50    whole country 125-500

Government ownership/support of intervention

Regional ownership/support of intervention

Faith-based & NGO ownership/support of intervention
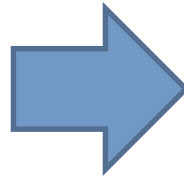
# Ghana Next Steps: Addressing Long term Sustainability of Quality

Compelling result but….

- No coherent, coordinated quality strategy
- No leadership capability or understanding of quality programming
- Cadre of quality mentors at risk
- Gains in U5 mortality at risk
- Unfinished business – no change in newborn outcomes

- Develop of quality strategy – core national priorities, coordinates policy and structure,
- Build multi-level leadership capability in leading change, enabling quality
- Ongoing quality training (Ubora Institute vs GHS)
- Practical application of QS through MN intervention
- Engage partners to support a well-developed learning based plan

# Malawi

- Weak central and district health system
- Highly active, uncoordinated NGO community
- Little evidence of sustained improvement
- Little evidence of NGO acting to support explicit MoH-led plan

But….Malawi did achieve MDG 4

High rates of Maternal and newborn mortality

# Malawi: Demonstration that MN mortality can be reduced

Bwaila Hospital, Lilongwe
- >16,000 births/year
- MMR >180/100,000
- NMR >30/1000
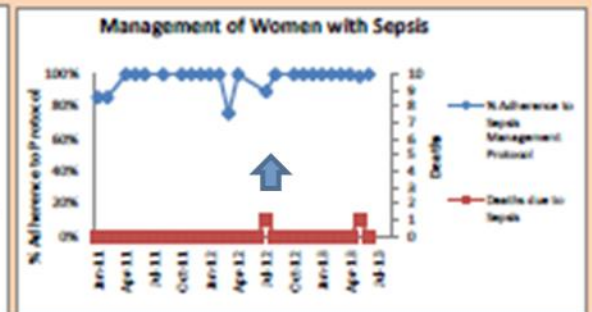
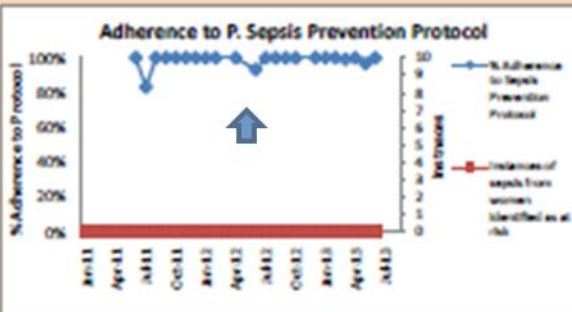# Malawi: Demonstration that MN mortality can be reduced
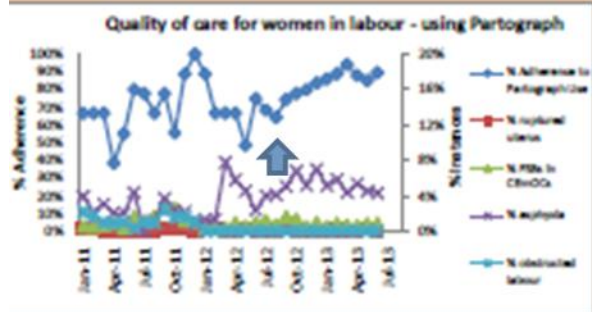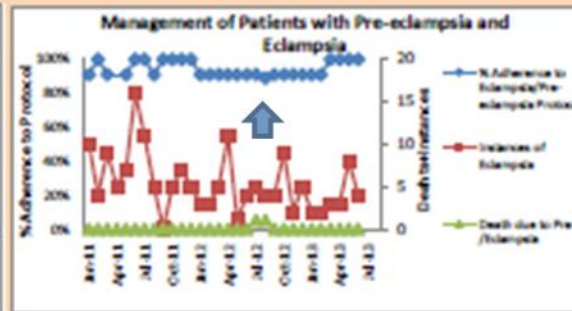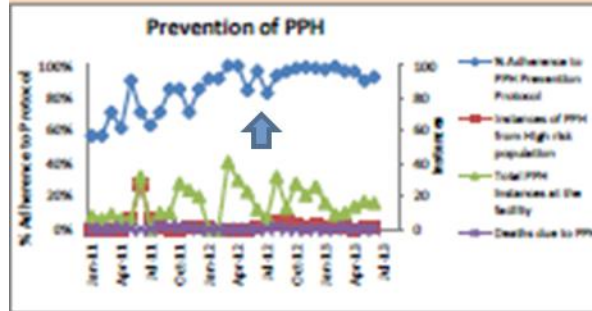
- Multi-partner Collaboration: (Bwaila DHO and staff), UNC, Rose Project, IHI, MaiKhanda

- Agreed to combine skills and resources
  - Clinical training
  - Leadership engagement
  - Secure supply chain
  - QI teams reorganized
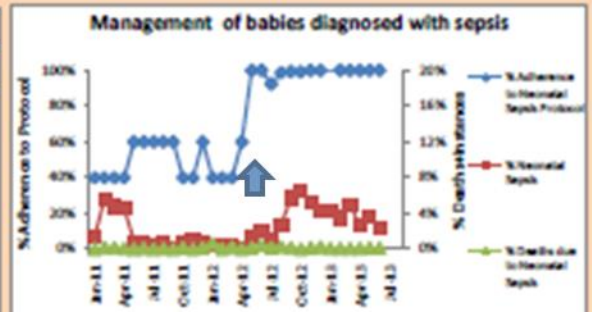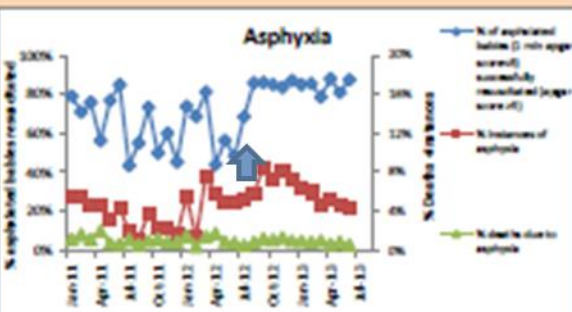  - Clinical staff capacity

# Malawi



PROCESS INDICATORS FOR MAIKHANDA INTERVENTIONS - Bwaila Hospital
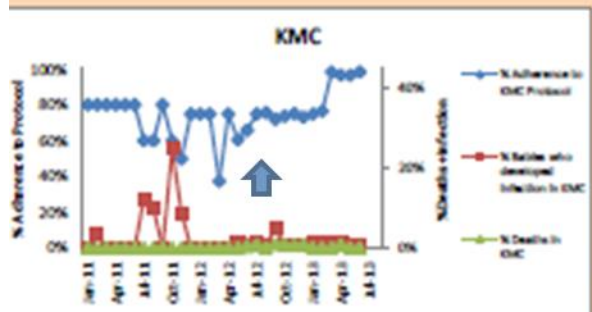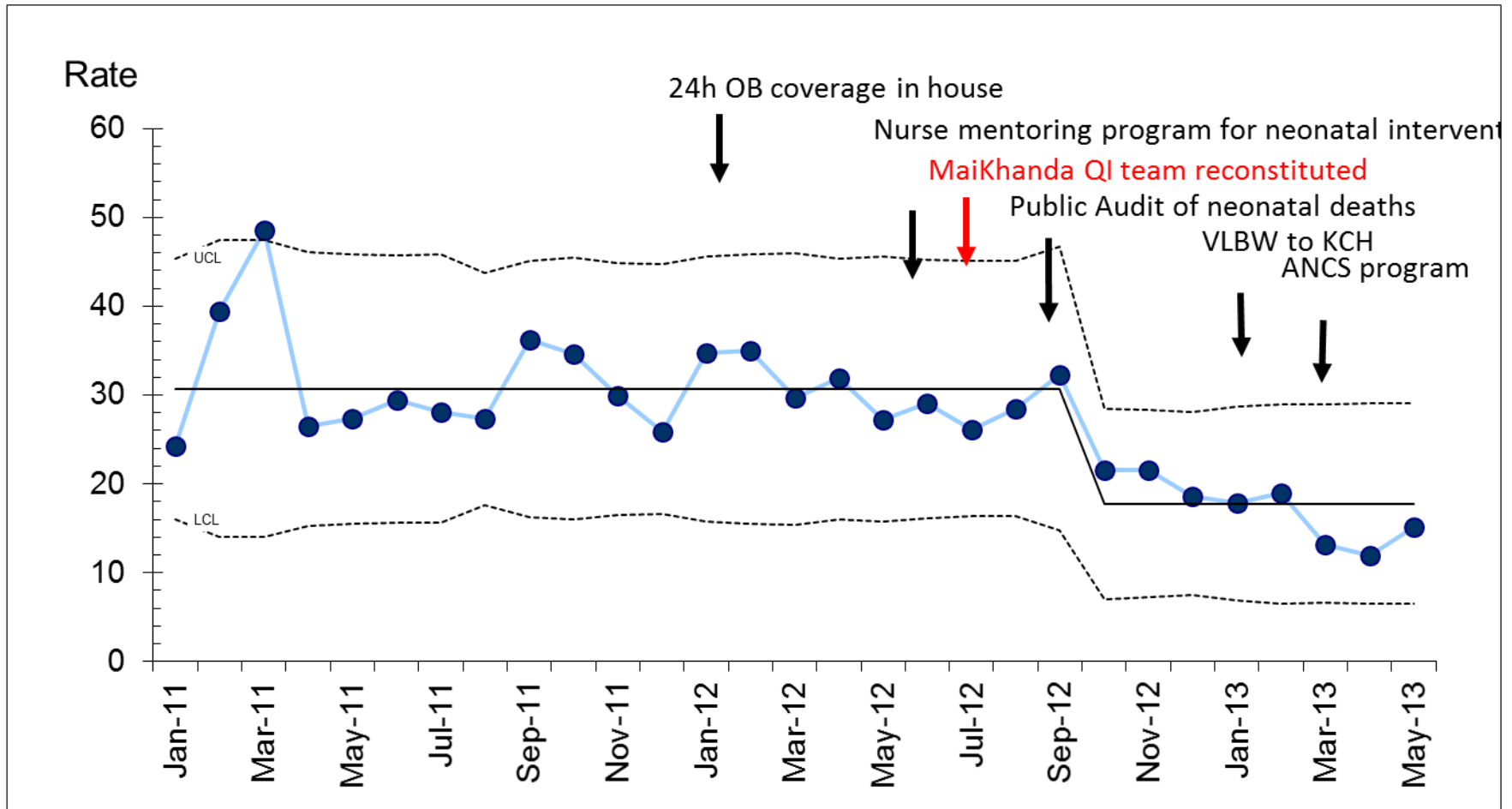
# Malawi

# Malawi: Content theory for effectiveness

By May 2016, reduce mortality due to prematurity by 30% across 12 CEmONCs

Activated leadership

Knowledgeable activated health workers

Immediate access to essential commodities

Data systems that record and report back key processes and outcomes in real time

A bundle of key clinical interventions that are reliably applied by QI teams

Activated patients and families

# Test of Scale: 13 hospital Collaborative, 65,000 deliveries/year



Follow exponential sequence for scale-up

| | Set Up – engagement with MoH | → | Effective intervention in unit of scale | → | Effective intervention in different contexts | → | Effective intervention at full scale |

| **Scale** | | Facility-district 1-5 | multiple districts 25-50 | whole country 125-500 |



Death rate in babies >2500g
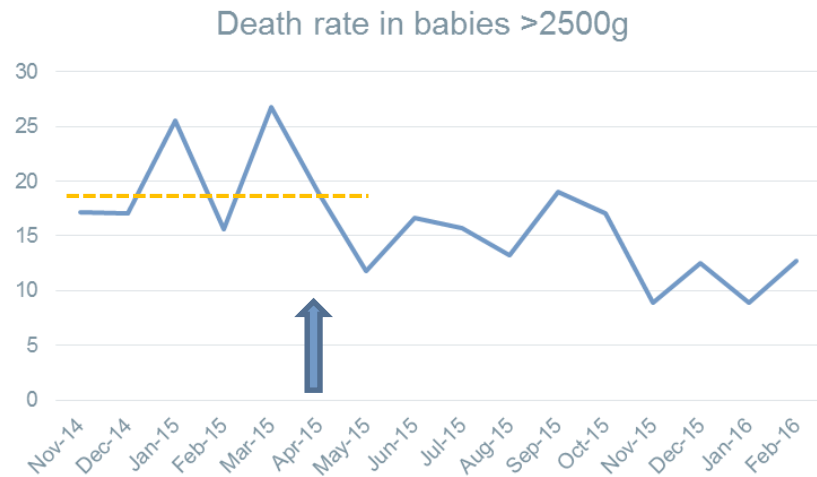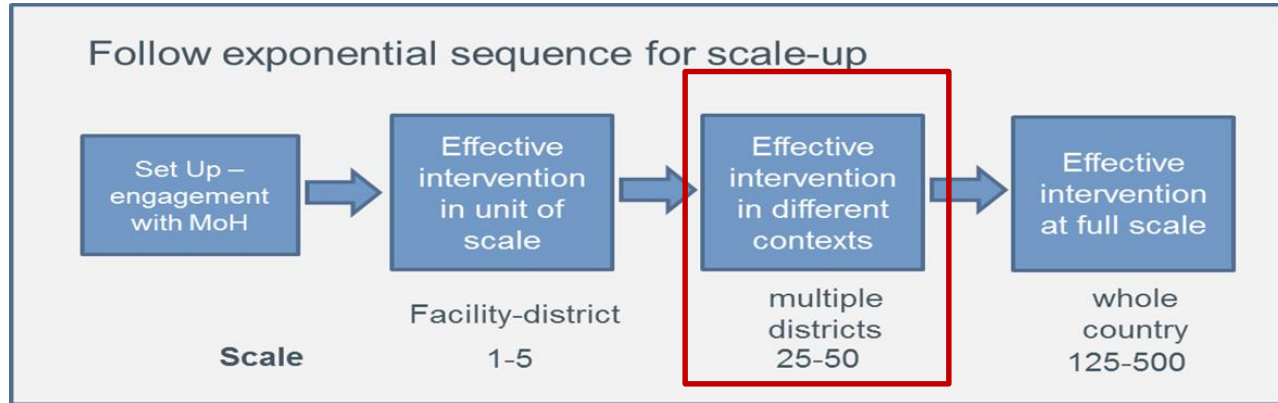
# Malawi: v late engagement

Follow exponential sequence for scale-up

| Set Up – engagement with MoH | Effective intervention in unit of scale | Effective intervention in different contexts | Effective intervention at full scale |
|---|---|---|---|
| | Facility-district 1-5 | multiple districts 25-50 | whole country 125-500 |

**Scale**

National ownership/support of intervention

District ownership/support of intervention

NGO ownership/support of intervention

# Ethiopia

Follow exponential sequence for scale-up

| Set Up – engagement with MoH | → | Effective intervention in unit of scale | → | Effective intervention in different contexts | → | Effective intervention at full scale |
|---|---|---|---|---|---|---|

**Scale**

Facility-district 1-5

multiple districts 25-50

whole country 125-500
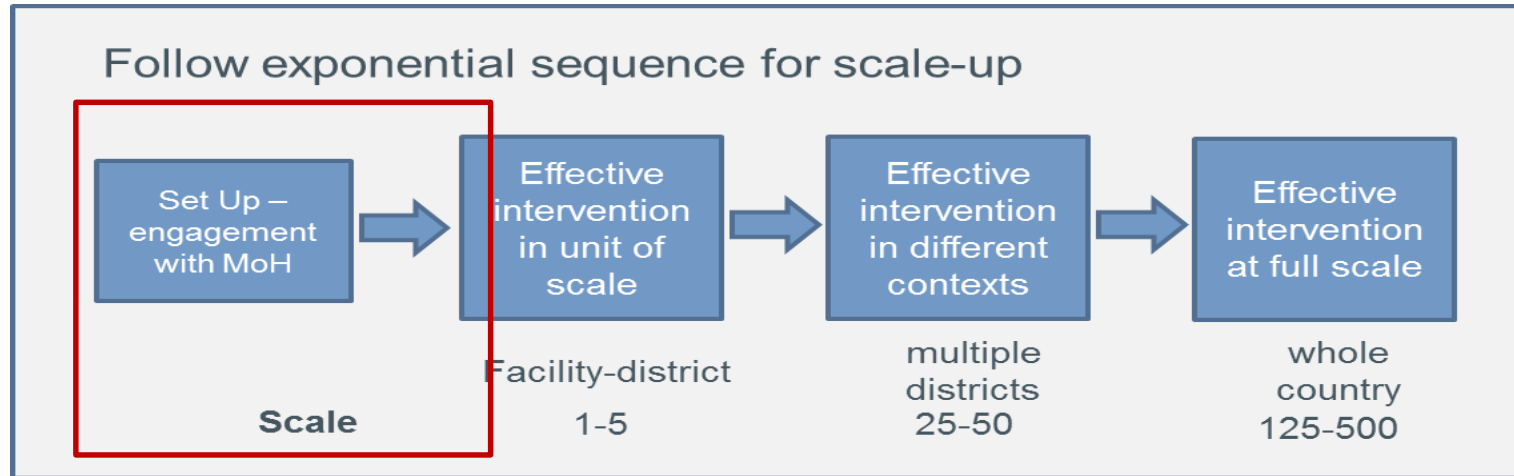
National  ownership/support of intervention

Regional  ownership/support of intervention

NGO ownership/support of intervention

# Ethiopia



Follow exponential sequence for scale-up

| Set Up – engagement with MoH | Effective intervention in unit of scale | Effective intervention in different contexts | Effective intervention at full scale |

**Scale**

Facility-district 1-5

multiple districts 25-50

whole country 125-500





Federal Democratic Republic of Ethiopia
Ministry of Health
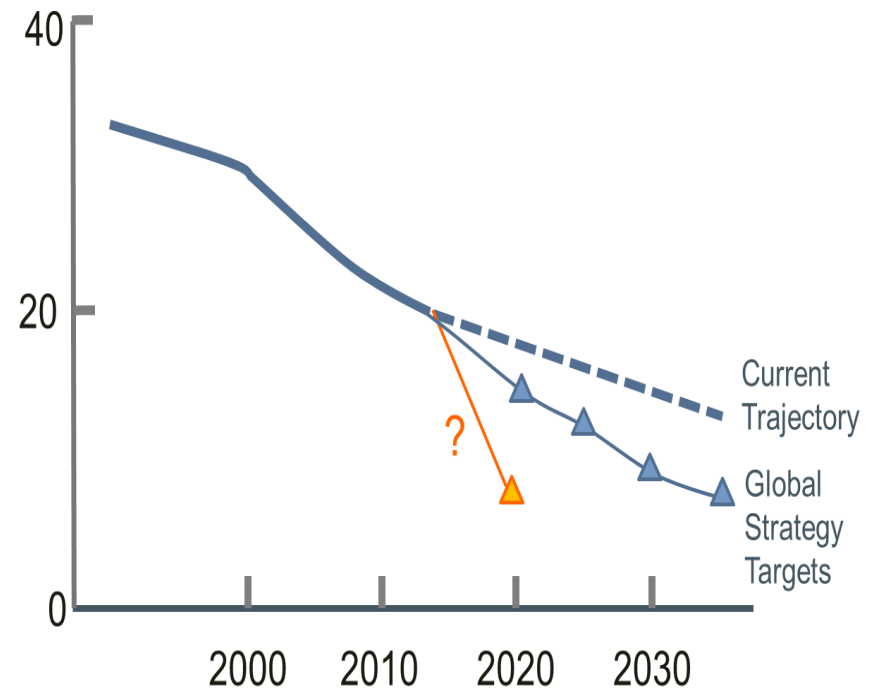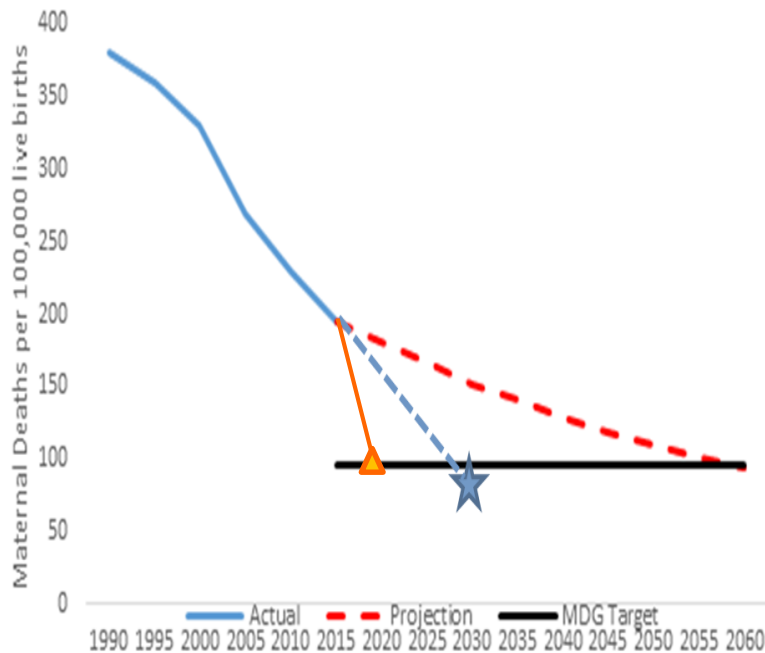
**ETHIOPIAN NATIONAL HEALTH CARE QUALITY STRATEGY**

2016 – 2020

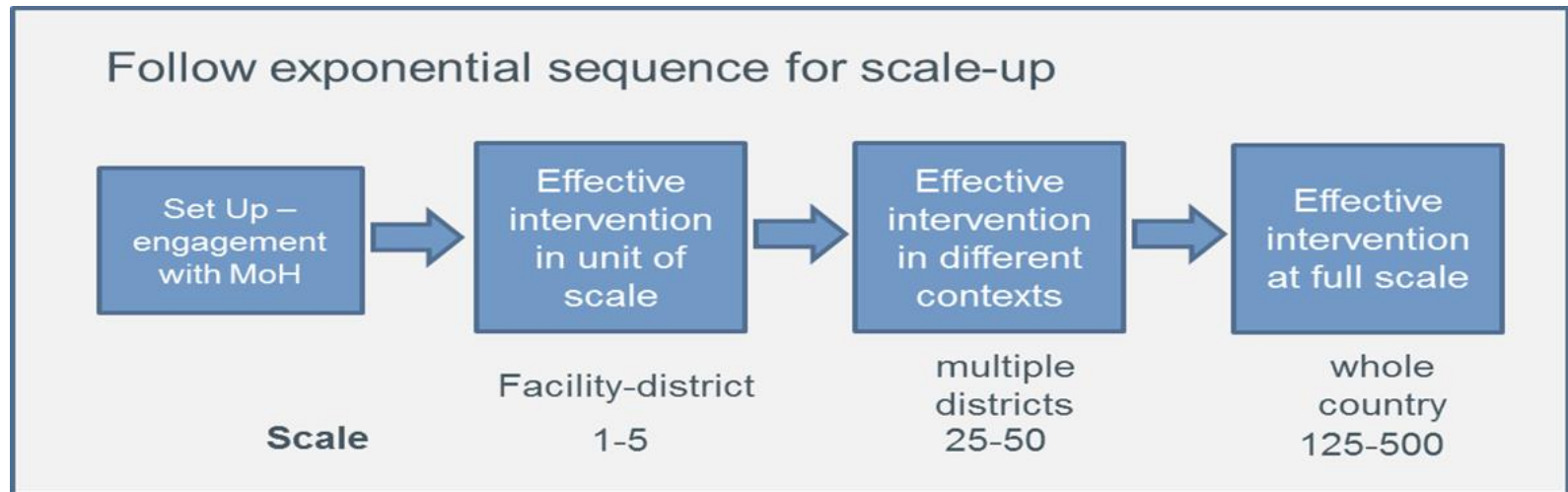Transforming the Quality of Health Care in Ethiopia

# Maternal and Newborn Mortality 1990 - 2035 – time for something more ambitious?

# Malawi:

Follow exponential sequence for scale-up

| Set Up – engagement with MoH | Effective intervention in unit of scale | Effective intervention in different contexts | Effective intervention at full scale |
|---|---|---|---|
| | Facility-district | multiple districts | whole country |
| **Scale** | 1-5 | 25-50 | 125-500 |

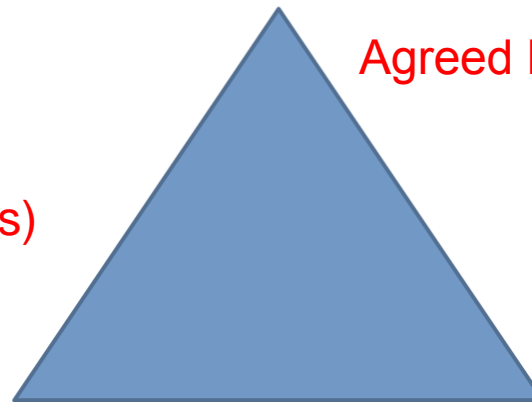# WHO QoC Initiative: accelerating better Maternal & Newborn Outcomes

**Burning Platform:**
Something that matters,
leadership that cares,
and knows how to act

Agreed bold aim ("Half by five")

Content Theory (QoC standards)

**Content Theory:**
multifaceted set of
actions that drive
better clinical
performance and
patient outcomes

**Implementation Plan:**
Strategic system
Technical method
Social system

Implementation Plan (guidance)

# WHO QoC Initiative: Content Theory - 8 WHO Standards

**Aim:**

Decrease maternal and newborn deaths by 50%, with 100% dignity and respect
- by 2020

| Provision of Care | Ideas |
|---|---|
| 1. Evidence-based practices for routine care and management of complications | |
| 2. Actionable information systems | |
| 3. Functional referral systems | |
| 4. Competent and motivated human resources | |
| 5. Essential physical resources available | |
| **Experience of Care** | |
| 6. Effective communication | |
| 7. Respect and Dignity | |
| 8. Emotional Support | |

# WHO QoC Initiative: Implementation Plan – 10 Interventions (no jargon, no branding)

1. Leadership and Management
2. Policies and Designs for Implementation and Scale Up
3. Financial Strategies
4. Assessment and provision of resources
5. Engaging women, families, communities in their care
6. Education and training for clinical *and* system activities
7. Supportive supervision of clinical *and* system activities
8. Rapid testing and local adaptation of ideas
9. Regular data audit and continuous data to support improvement
10. Learning systems and communities for accelerating improvement
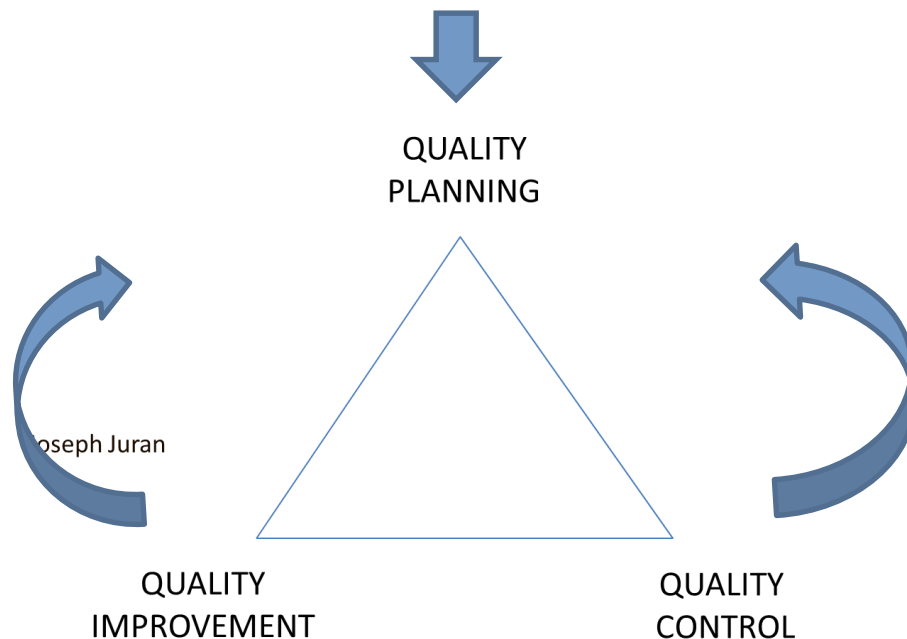
# WHO QoC Initiative: Global Learning Community

Global Learning Community

# WHO QoC Initiative: Simple Measurement Plan

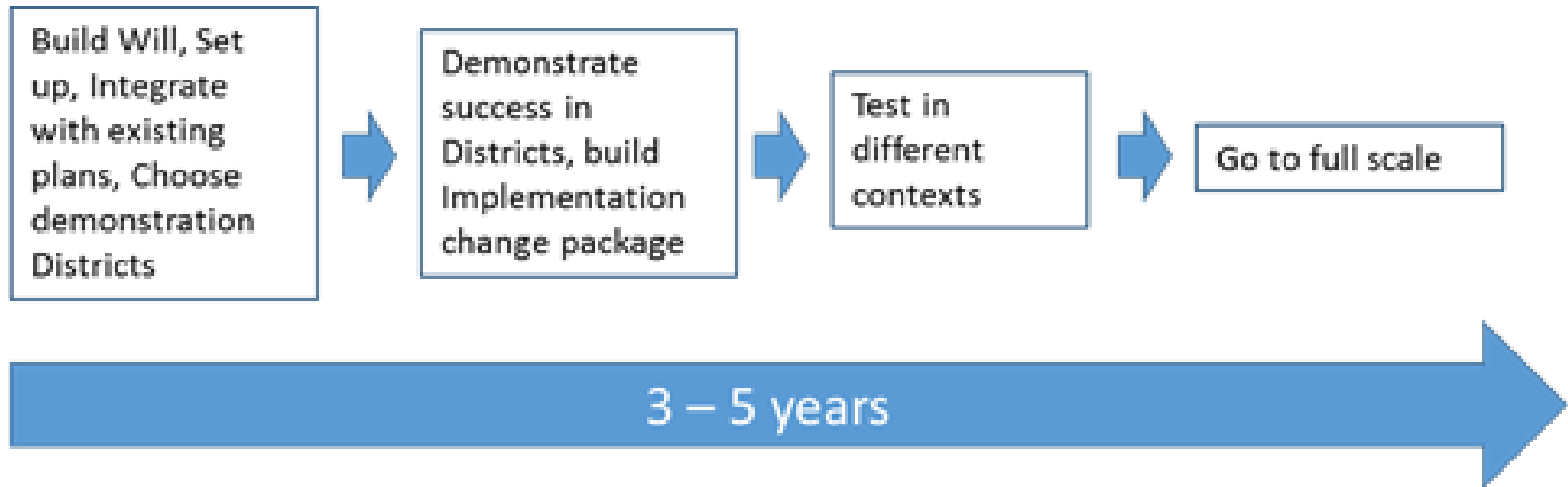| | **National** | **District** | **Facility** |
|---|---|---|---|
| Core Measures (?10) | Reported quarterly for every District | Reported Monthly for every facility | Reported Monthly for every facility |
| Quality Control measures - | Quality Control measures (accreditation, prof regulation) | Key measures for each of QoC Standard (?quarterly) | Tracked continuously – reported monthly |
| Quality Improvement Measures | | | Ad-hoc as required. Using measures suggested in QOC Standards |

# WHO QoC Initiative: Learning System

A learning system collects a broad range of metrics, tools and experiences, and incorporates this information into a continuous feedback loop to inform future planning and action.
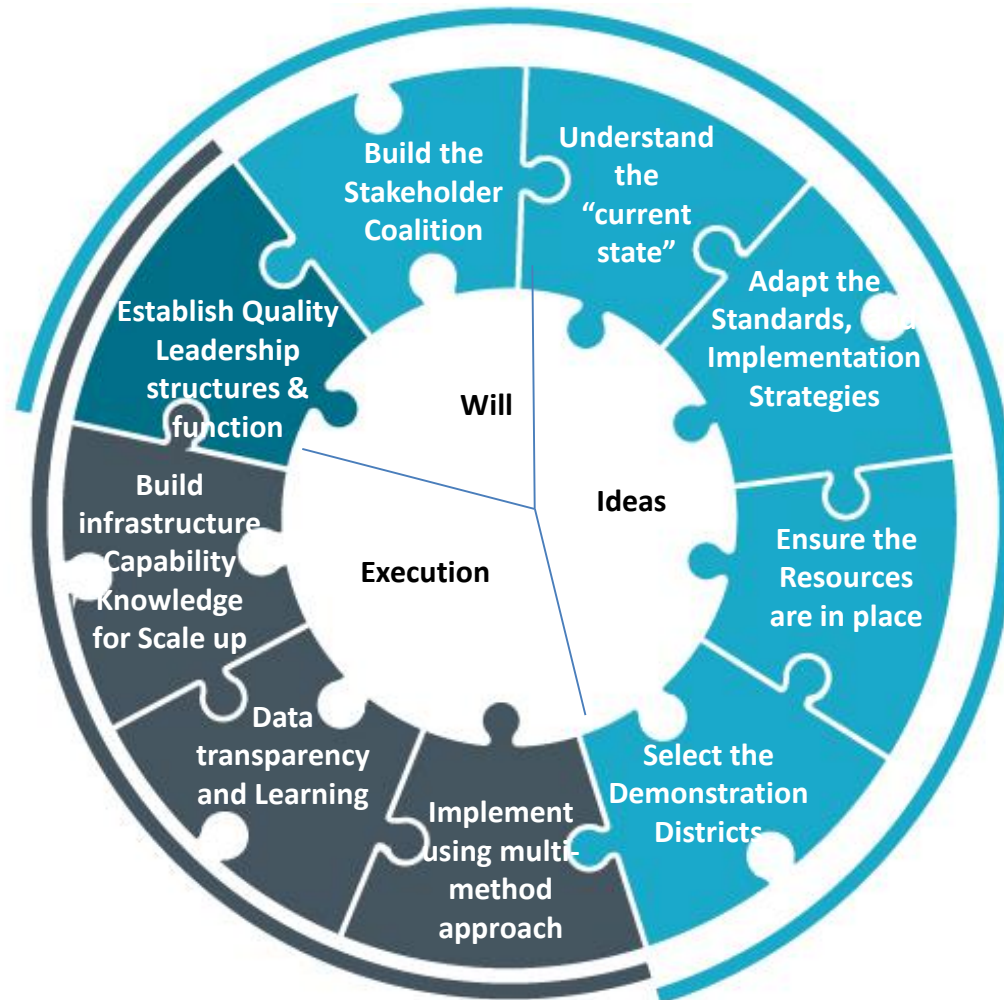
QUALITY
PLANNING

Joseph Juran

QUALITY
IMPROVEMENT

QUALITY
CONTROL

# WHO QoC Initiative: Sequence for getting to scale

Build Will, Set up, Integrate with existing plans, Choose demonstration Districts

→ Demonstrate success in Districts, build Implementation change package

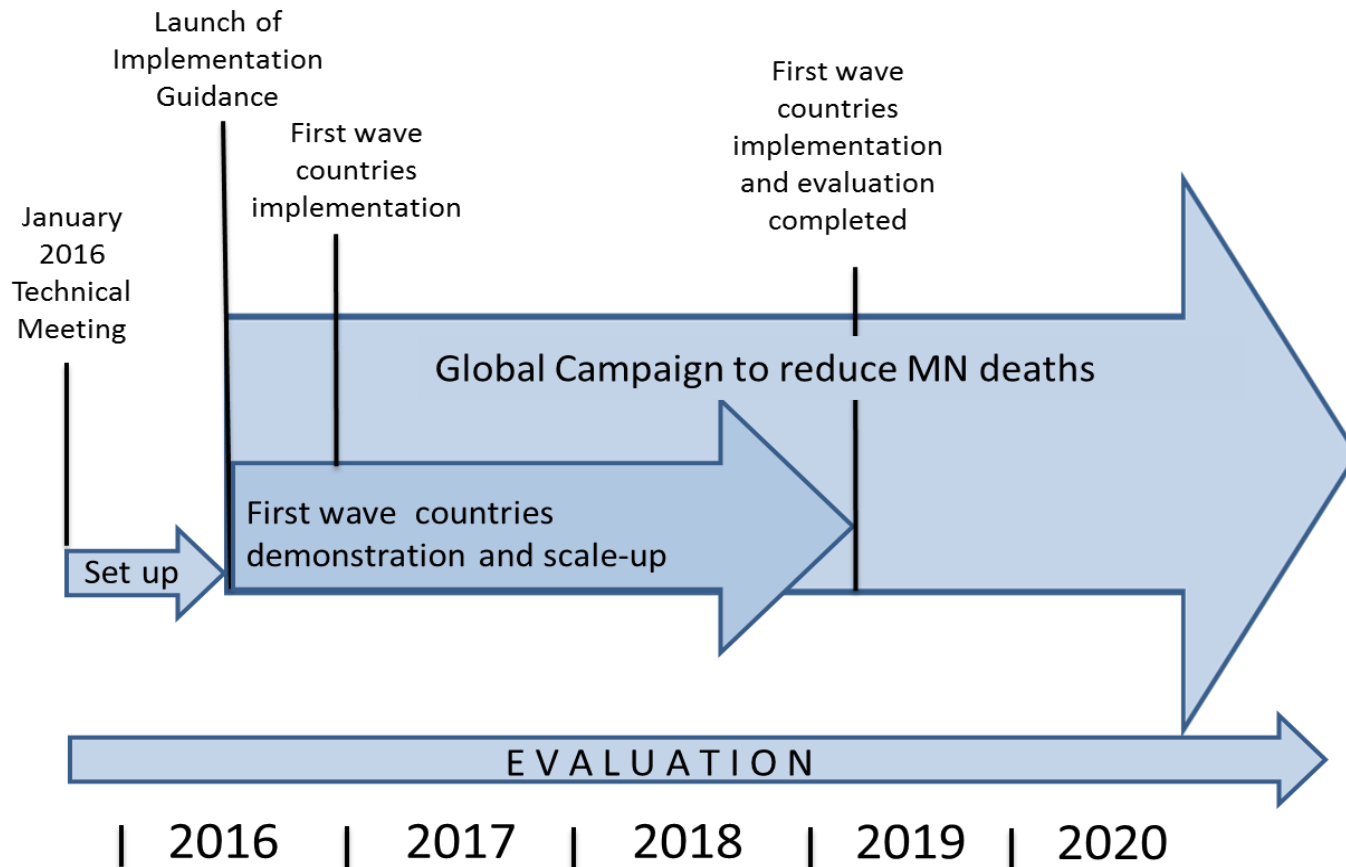→ Test in different contexts

→ Go to full scale

**3 – 5 years**

# WHO QoC Initiative: Country-Led Intervention. Using MNH as example

# WHO QoC Initiative: Putting it All Together

# Questions

- How do NGOs engage most effectively with Ministries of Health?

- How do Ministries of Health best use the technical supports of NGOs most effectively?

- How to best incorporate innovations of implementation into country plans?

- How should NGOs design for scale up?

- What does sustainability really mean?

- What capabilities are needed for sustainability?

- How do we put Ministries of Health into the "driver's seat"