



NEGLECTED TROPICAL DISEASE
NGO NETWORK

A global forum for nongovernmental organizations
working together on NTDs

Welcome to the NNN Conference 2020

Accelerating to 2030:
Building Resilient NTD
Programmes in a
Changing World

With thanks to our
sponsors



Virtual Event

8th – 10th September 2020

Billy Weeks (2016, Chikwawa, Malawi)



ntd-ngonetwork.org





NEGLECTED TROPICAL DISEASE
NGO NETWORK

A global forum for nongovernmental organizations
working together on NTDs

9 September 2020

Workshop 2.4

Applying a Quality Improvement Model to Neglected Tropical Diseases Program Implementation: supporting programs in identifying keys for sustaining operations

Dr Bruno Bouchet, Director Health Systems Strengthening, FHI 360

Dr Kisito Ogoussan, Implementation Management Lead, Act | West, FHI 360

Dr Ibrahim Kargbo-Labour, NTD Program Manager, Sierra Leone

Dr Benjamin Marfo, NTD Program Manager, Ghana



ntd-ngonetwork.org



What do we want to address?

Priority Issues for NTD Programs:

- 1. Low preventive chemotherapy coverage of at-risk population at sub-district level, leading to continued pocket of transmission and failure of impact assessment**
- 2. Poor quality of disease specific assessment leading to unreliable results notably with Trachoma impact assessment surveys**



How to Improve the Performance of NTD programs based on MDA strategy?

1. Use a model for improvement:

- Known to improve quality of healthcare services
- Designed to address (health) system's performance

2. Integrate the improvement model into the MDA:

- Use each MDA as an opportunity to try something new and learn from it
- Target the steps of the MDA with changes

3. Design the improvement as a test:

- Test changes on a subset of districts during an MDA campaign (intervention group)
- Compare results with the regular MDA (control group)



Presentations

- 1. The QI model: Dr. Kisito Ogoussan**
- 2. Planning in Sierra Leone: Dr. Ibrahim Kargbo-Labour**
- 3. Results from Ghana: Dr. Benjamin Marfo**



Questions for Debate

- 1. How to integrate QI into a program that operates through campaigns?**
- 2. How to measure the effect of changes for NTD programs?**
- 3. How to test the validity & measure the added value of QI for NTD programs, using a mix of implementation science and formative research?**



QUALITY IMPROVEMENT MODEL AND TOOLS AND NTD PROGRAMS

PRESENTED BY: DR KISITO OGOUSSAN

**IMPLEMENTATION MANAGEMENT LEAD
USAID ACT NTD | WEST PROGRAM, FHI 360**

NNN CONFERENCE 2020, SEPTEMBER 9TH , 2020



ntd-ngonetwork.org



This presentation is made possible by the generous support of the American people through the United States Agency for International Development (USAID).

The contents are the sole responsibility of the Act to End NTDs | West Program, led by FHI 360 in partnership with Helen Keller International, Health and Development International, Deloitte, World Vision, Americares, and The AIM Initiative under Cooperative Agreement No. 7200AA18CA00011 and do not necessarily reflect the views of USAID or the United States Government.



ntd-ngonetwork.org

Title of Presentation Goes Here



Fundamentals Of Quality Improvement Model



ntd-ngonetwork.org

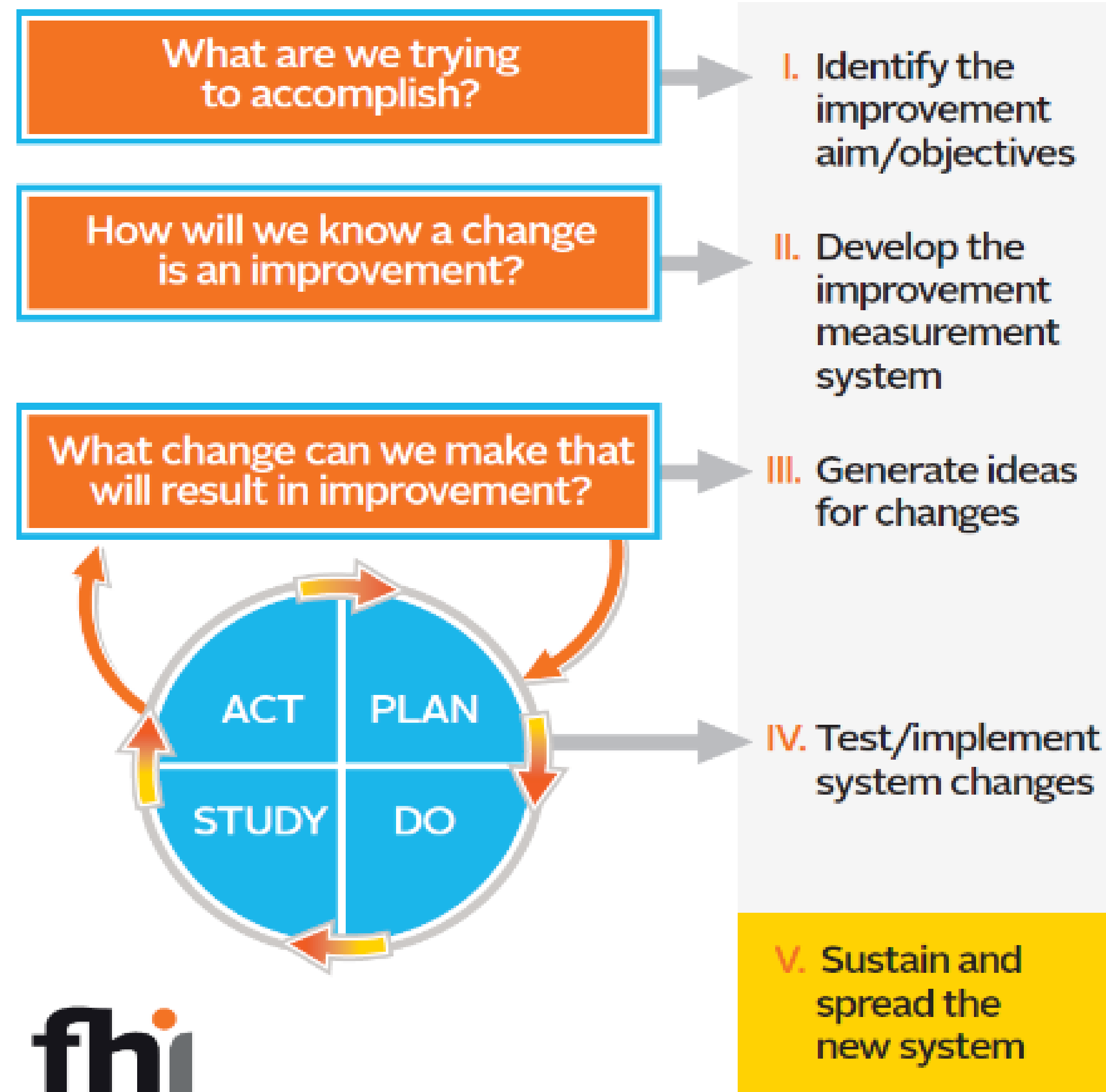


Principles of (Quality) Improvement

- There is no improvement in performance of a system without systems changes
- An NTD program is a complex system, with many components (inputs and process) that interact to produce a result
- We need a model for improvement that promotes systems thinking and is designed for testing changes and learning from it



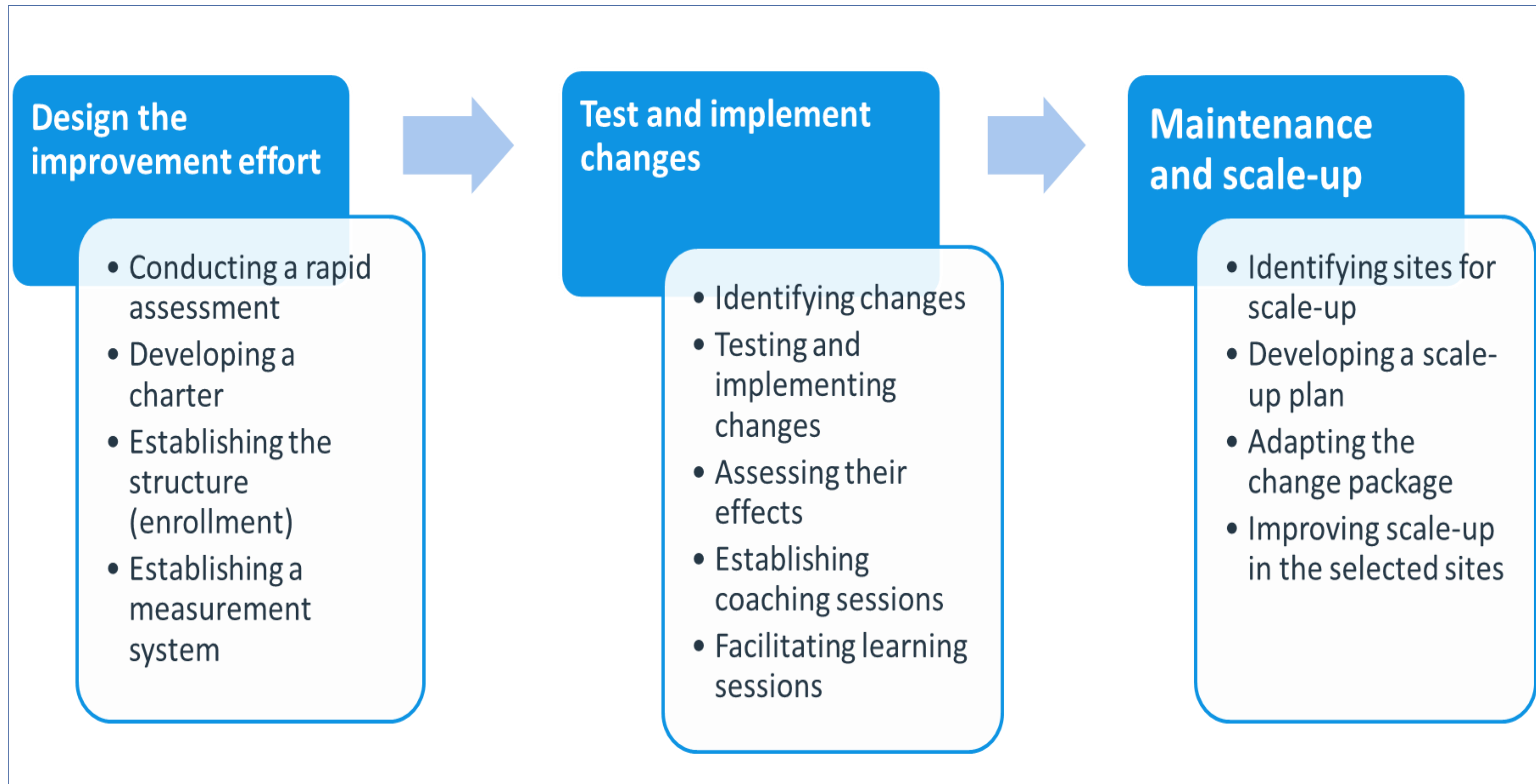
FHI 360 Quality Improvement Model



Source: GL Langley, RM Nolan, TW Nolan, CL Norman, and LP Provost, *The Improvement Guide: A Practical Approach to Enhancing Organizational Performance* (San Francisco: Jossey-Bass, 1996).



Phases of QI Implementation Process



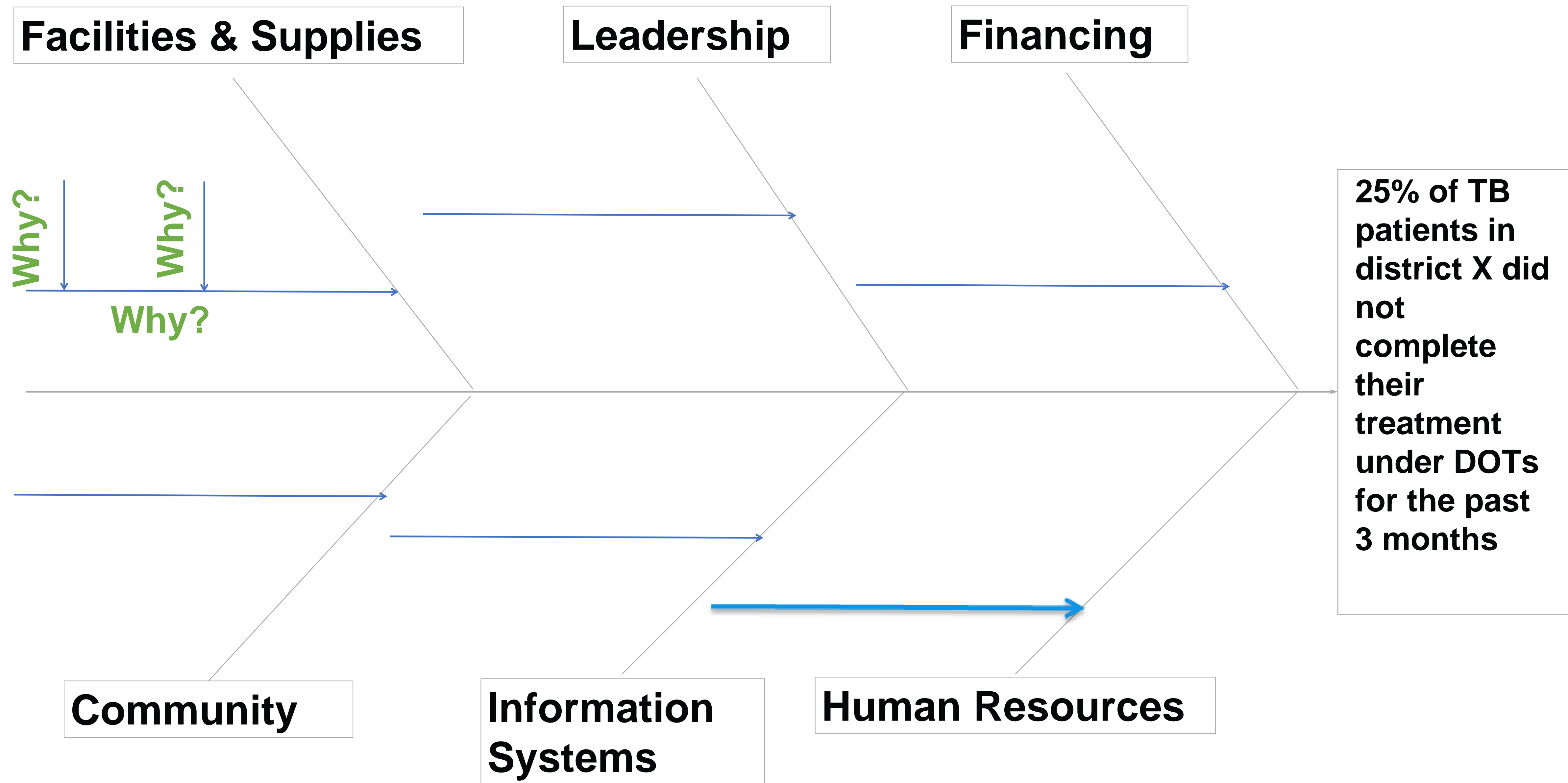
Tools Of Quality Improvement Model



ntd-ngonetwork.org



Root-Cause Analysis Of Performance : Health Systems Issues

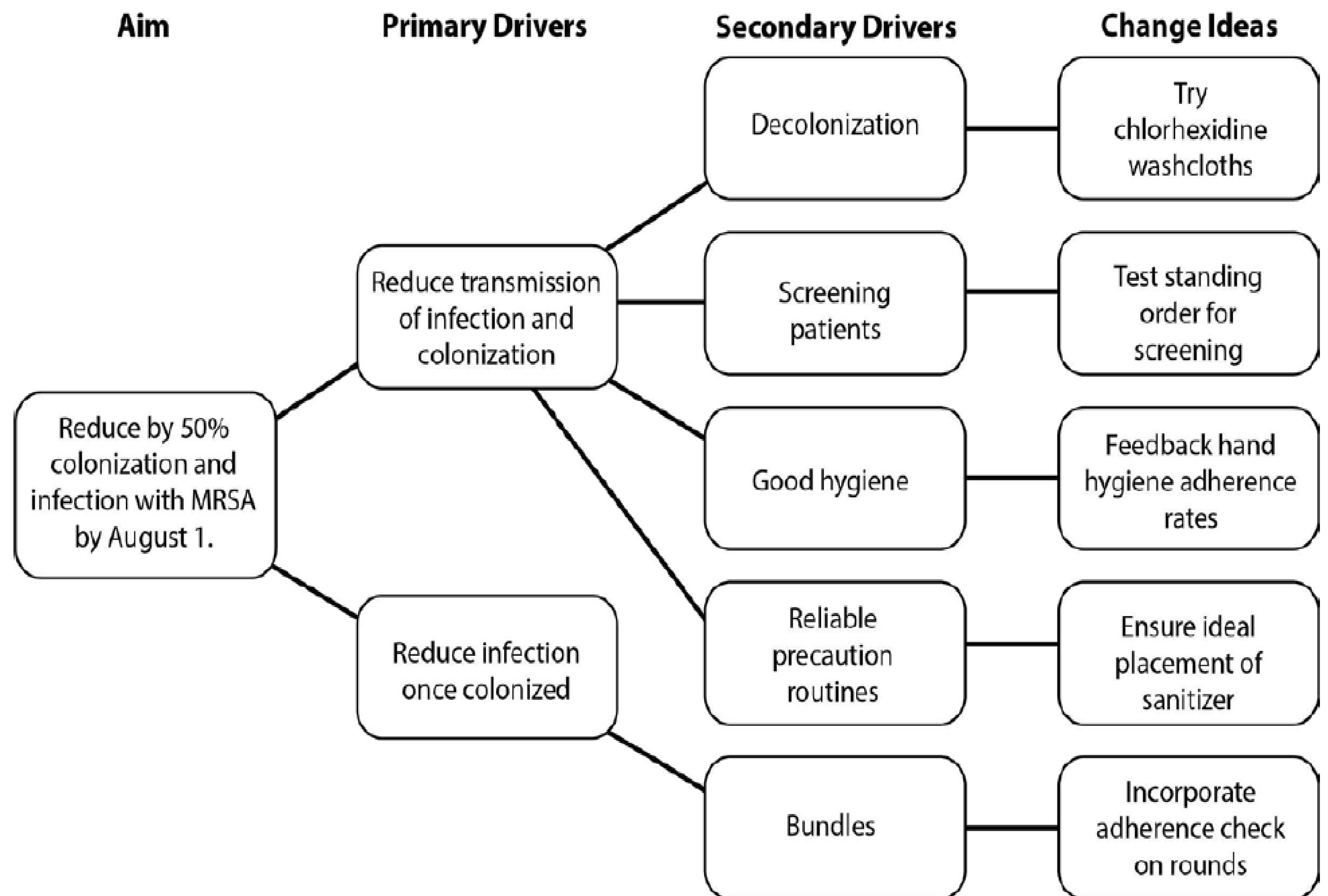


Driver Diagram

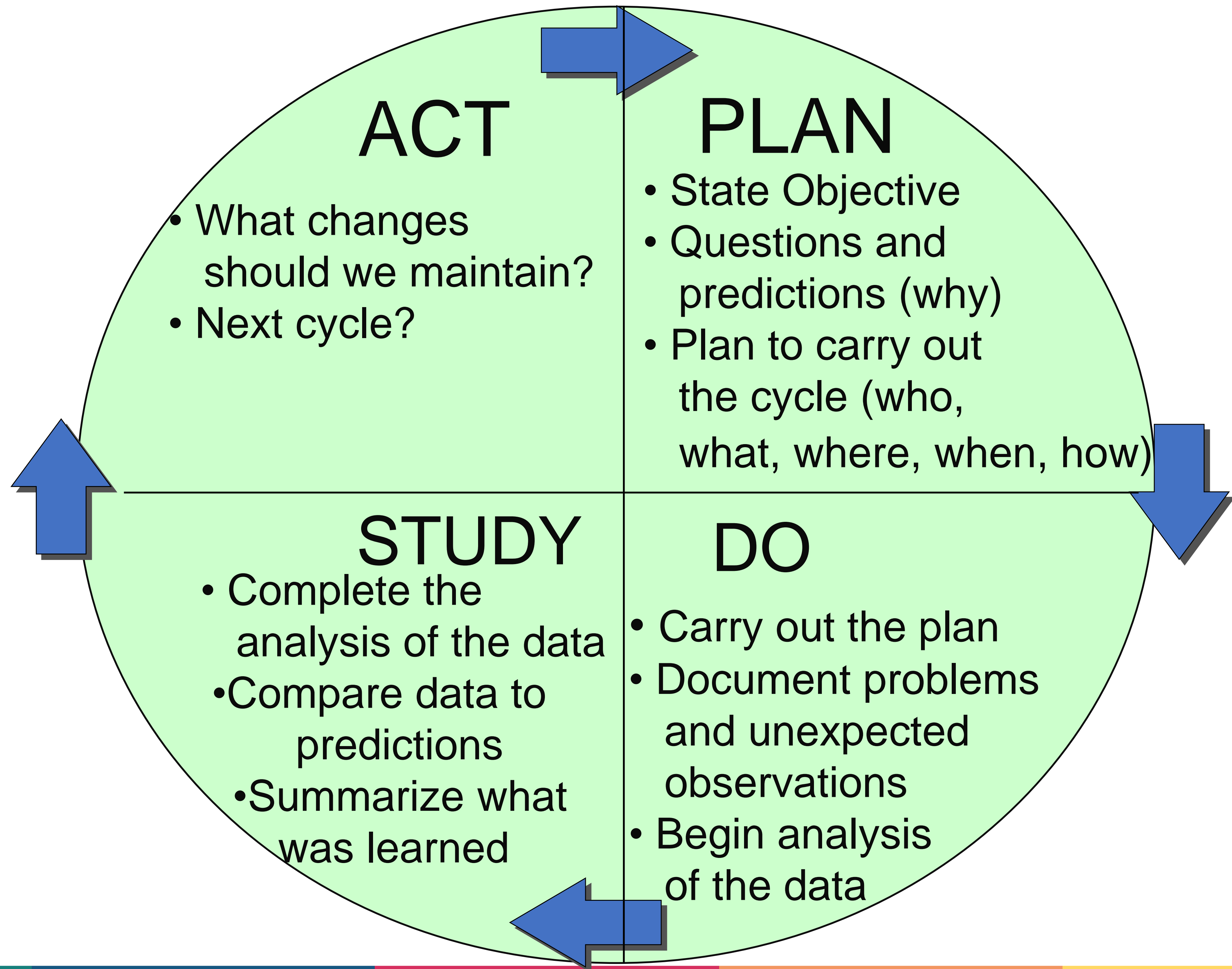
Visual display of a team's theory of relationship between

- What "drives," (Primary drivers)
- or contributes to (secondary drivers), the achievement of a project aim.

Example: Driver Diagram



The PDSA Cycle



Designing the Improvement effort : Situation analysis and the QI charter

- **The rapid Assessment/Situation analysis** to define the borders of the system, assess the process and obtain expectation among the stakeholders.
- **A quality improvement charter** is a document that describes the improvement effort and is structured according to the QI models to provide a roadmap for implementation of an improvement effort.



Expertise needed for a successful improvement effort

- **QI team(s)**

- Deliver the service and their customers
- Analyze systems
- Test/implement changes
- Measure/analyze/report results

- **Leadership/management team**

- Manage the effort
- Communicate to central level
- Review results, approve changes and provide “political” support

- **Technical content expert(s)**

- Authorities in the topic matter
- Review/validate the scientific evidence
- Train and communicate evidence-based standards/best practices

- **QI expert (s)**

- Know QI model and tools
- Train teams on QI tools
- Coach & support QI teams
- Support documentation & lessons learned



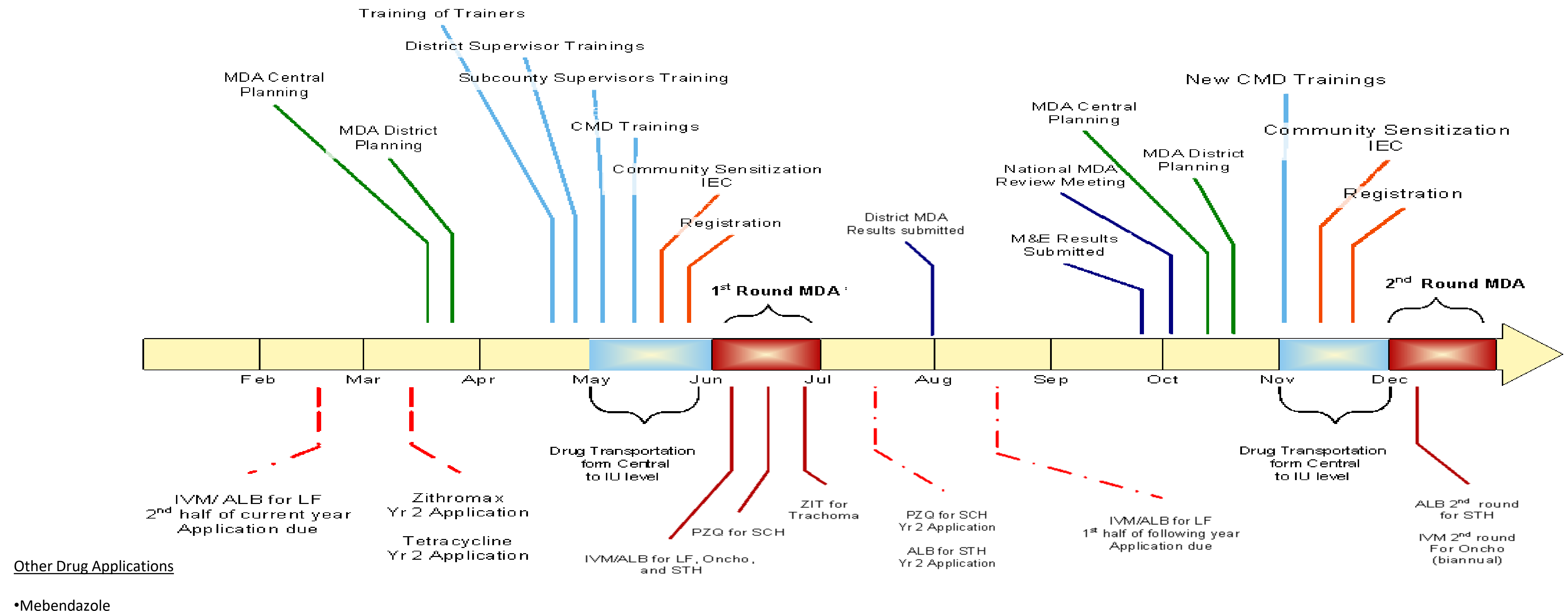
Applying The Improvement Model to a NTD Program



ntd-ngonetwork.org



Systemic View of an MDA Cycle



Year-round Activities

- Strategic and technical planning
- Low Dose High Frequency Advocacy
- Supervision / use of checklists

Plan —————> Execute —————> Evaluate —————> Decide



ntd-ngonetwork.org



NTDP Interventions Challenges

Challenges in FY 19 and FY20 to address through QI :

☐ Low coverage;

Especially hard-to-reached conflict/insecurity areas, migrant, nomadic, transient borders, and mining populations (**Sierra Leone**)

☐ DSA implementation;

✓ LF pre-TAS repeat failure (**Sierra Leone, Ghana**)

✓ LF TAS1 failure (...)

✓ Trachoma TIS & TSS failure (...)



THANK YOU



ntd-ngonetwork.org



PLANNING FOR QUALITY IMPROVEMENT INITIATION IN SIERRA LEONE/HOW TO DESIGN YOUR TEST OF CHANGE



PRESENTED BY: DR. IBRAHIM KARGBO-LABOUR
NTDP MANAGER MINISTRY OF HEALTH AND SANITATION

NNN, Wednesday September 9, 2020

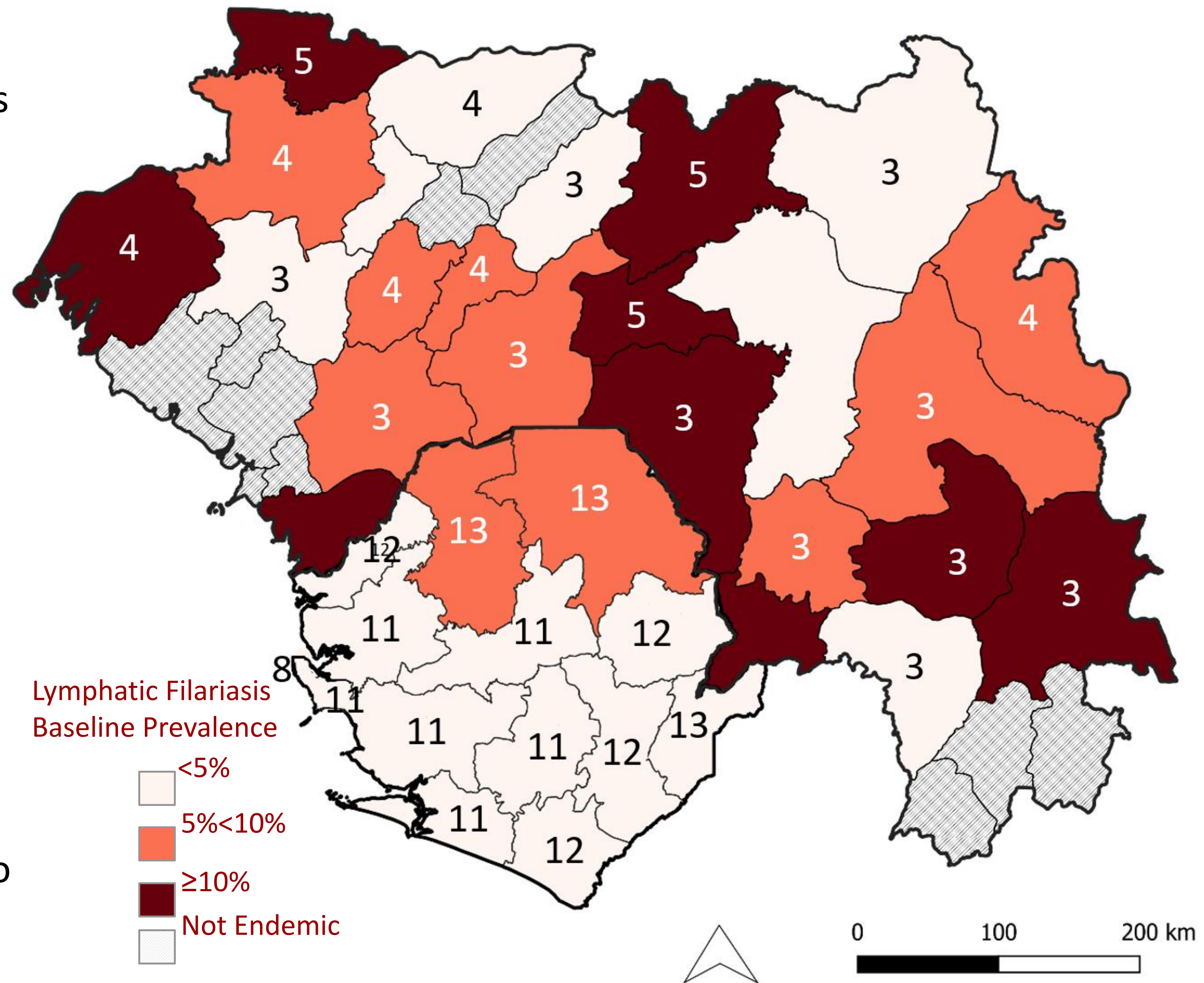


ntd-ngonetwork.org



Background

- Mapping 2005: Higher prevalence in northern districts bordering Guinea (frequent seasonal migration by pastoralist and traders Fulani and Mandingo)
- Mass Drug Administration for Lymphatic filariasis (LF MDA) commenced in 2008
- In 2013 & 2017, **four districts failed a pre-Transmission Assessment Survey (pre-TAS)** using mf despite having reported $\geq 65\%$ epidemiologic coverage since 2009
- In 2017 Western Area Rural also failed the pre-TAS despite having reported $\geq 65\%$ epidemiologic coverage since 2010



Quality improvement for LF elimination Sierra Leone

Issue we want to address?	Four districts failed pre-TAS in 2013 with microfilaremia and one failed Pre-TAS in 2017 using filariasis test strip (FTS)
How do we know it is a problem?	Four districts failed the pre-TAS for a second time in 2017 using FTS

GOAL: Pass Pre-TAS in four hotspot districts

Objectives:

- Achieve effective MDA coverage (65% epi) at sub-district level
- Improve quality implementation of pre-TAS and TAS
- Improve Supply Chain to reduce stock out during MDA



Quality improvement for LF elimination

The results of root-cause analysis identified four themes that required attention:

- Data Quality
- Enhanced Community Engagement
- Supply Chain Management
- Pre-TAS preparation, training, implementation and supervision



Data Quality Issue: sub-district analysis

District	Epi Coverage (%)	No. of PHUs with MDA coverage, 2019				#PHU with inadequate Coverage (% to total PHU)
		<65%	≥65%	≥100%		
Kailahun	79.5	1	78	3	4	(4.9%)
Bombali	83.8	3	106	2	5	(4.5%)
Koinadugu	78.8	13	45	20	33	(42.3%)
Kenema	79.2	17	81	24	41	(33.6%)

Root-Causes:

- CDD census inaccuracies
- Urbanisation
- Migration for employment, schooling, trade
- People have accessed MDA outside their catchment community

Data Quality : Ideas to Enhance Quality

Change

- Update community drug distributors (CDDs) village census and registers
- Payments for CDDs
- Collect sub-district data asap and immediately implement MDA support and/or repeated mop-ups

Intervention

- Increase District Health Management Team (DHMT) supervision, logistics and utilize supervisor's coverage tool (SCT)
- Revise training manuals
- Increase training days for peripheral health unit (PHU) staff and in separate cohorts for large districts, even pre-COVID



Supply Chain : Improvement Ideas

- Recruit staff: Pharmacist, Storekeeper and M&E Officer 2
- Improve NTD drugs inventory at the District Medical Store
- Strengthening NTD logistics management information system (LMIS)
- Training on NTD inventory management
- Strengthening reverse logistics



Quality Implementation of Pre-TAS

- Training of field supervisors and survey teams on approved survey protocol by national NTDP, Helen Keller and FHI 360 LF technical Advisor
- Sensitization of communities at selected sites prior to survey implementation
- Survey implementation: sample collection using LF bench Aid
- Supervision of Pre-TAS by NTDP, Helen Keller and FHI 360 LF technical Advisor
- The use of electronic data collection forms for the collection of supervisory and survey data.



Community Engagement Issues

- Urban communities are partially influenced by non-traditional opinion leaders and social media
- Young people do not feel 'at risk' of LF or Covid-19 and will be hesitant to participate
- Adolescents/youth are concerned about fertility during LF MDA
- Communities are very wary/hostile of outsiders entering their villages during an epidemic (Ebola and COVID) especially in 'opposition' areas
- The Fullah ethnic group needs a parallel system of traditional leaders to accept messages



Rapid assessment

- **Rapid assessment** of the social dynamics in the four LF hotspot districts that may influence Pre-TAS and MDA compliance in the context of Covid-19 by adapting the approach used during the Ebola vaccine trials:
 - focus group discussions
 - in depth interviews (chiefs, councilors, women's leaders, youth leaders)
 - ethnographic observation
 - power mapping and
 - rumor tracking
- Findings will help to start the process of identifying the change of idea.



THANK YOU !!!



USAID
FROM THE AMERICAN PEOPLE

Act to End
NTDs
W E S T



fhi
360
THE SCIENCE OF
IMPROVING LIVES

M **Mectizan®**
Donation
Program

Johnson & Johnson

**HELEN
KELLER
INTL**



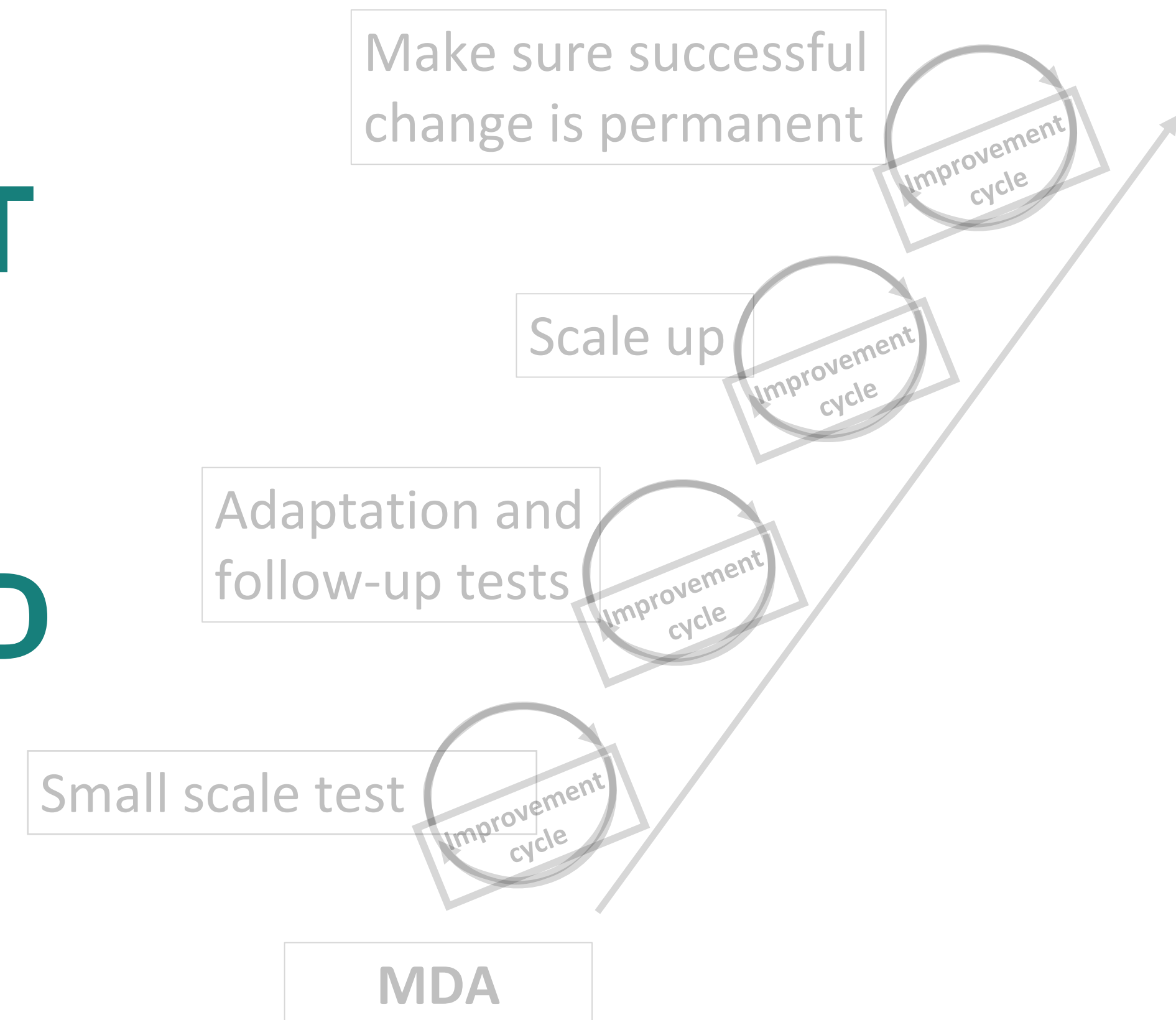
ntd-ngonetwork.org





USING QUALITY IMPROVEMENT TO STRENGTHEN THE NTD PROGRAM IN GHANA : RESULTS & LESSONS LEARNED

*Dr Benjamin Marfo
NTD Programme Manager
Public Health Division*



ntd-ngonetwork.org



Background



- Ghana began the LF Program in 2001
- 114/260 districts endemic
- At risk population: 12 million
- Broken transmission in 99/114 districts
- In 2019, treatable population in the 15 districts is 1,169,357
- High prevalence of LF in 15 districts despite 15-19 MDA rounds
 - *Persistent pre-TAS failure*
 - *Which factors are responsible?*

Outlook of Impact Assessments (Pre-TAS)

LF District	2014 Prevalence %	2015 Prevalence %	2017 Prevalence %	2018 Prevalence %	2019 Prevalence %
Sunyani Municipal	2.1% (NBS)	-	10.3% (FTS)	-	2.8 (FTS)
Sunyani West	0.9% (NBS)	-	10.1% (FTS)	-	4.2 (FTS)
Bole	5.6% (NBS)	-	9.7% (FTS)	-	8.4 (FTS)
Sawla-Tuna-Kalba	1.7% (NBS)	-	12.3% (FTS)	-	6.3 (FTS)
North Gonja	0% (NBS)	-	2.0% (FTS)	-	0.3 (FTS)
West Gonja	4.3% (NBS)	-	0.9% (FTS)	-	
Nabdam	-	1.0% (NBS)	-	11.0% (FTS)	
Kassena Nankana West	1.7% (NBS)	-	-	1.4% (FTS)	
Jirapa	-	1.4% (NBS)	-	9.1% (FTS)	
Lawra	-	1.0% (NBS)	-	8.8% (FTS)	
Wa East	-	1.0% (NBS)	-	3.7% (FTS)	
Wa West	-	1.9% (NBS)	-	2.6% (FTS)	
Ahanta West	1.4% (NBS)	-	12.6% (FTS)	-	4.2 (FTS)
Axim Municipal	3.75% (NBS)	-	7.0% (FTS)	-	3.0 (FTS)
Ellembelle	4.5% (NBS)	-	6.8% (FTS)	-	2.2 (FTS)



Magnitude of the Problem

- ❖ High non-compliance (Refusals & Absenteeism)
 - Compliance (44%) meaning Non-compliance (56%) for 2012 MDA- **Offei M. et al** (2014)
- ❖ Poor data quality (*untimely, incomplete & inaccurate data*)
 - Data quality assessment results show that over 60% of reported MDA data in 2015 was inaccurate. **de Souza DK et al** (2016) in 10/12 (83.3%) sites assessed



Journal of Bacteriology and
Parasitology

Offei and Anto, J Bacteriol Parasitol 2014, 5:1
DOI: 10.4172/2155-9597.1000180

Research Article

Open Access

Compliance to Mass Drug Administration Programme for Lymphatic Filariasis Elimination by Community Members and Volunteers in the Ahanta West District of Ghana

Marian Offei and Francis Anto*


School of Public Health, College of Health Sciences, University of Ghana, Legon, Ghana

PLOS NEGLECTED TROPICAL DISEASES

OPEN ACCESS PEER-REVIEWED

RESEARCH ARTICLE

Assessing Lymphatic Filariasis Data Quality in Endemic Communities in Ghana, Using the Neglected Tropical Diseases Data Quality Assessment Tool for Preventive Chemotherapy

Dziedzom K. de Souza , Eric Yirenkyi, Joseph Otchere, Nana-Kwadwo Biritwum, Donne K. Ameme, Samuel Sackey, Collins Ahorlu, Michael D. Wilson

Published: March 30, 2016 • <https://doi.org/10.1371/journal.pntd.0004590>



ntd-ngonetwork.org



Systematic Analysis of the Problem

The problem was categorized into these main categories of causes:

- Data quality issues
- CDD issues
- Community issues
- Health service issues



Root Causes of Identified Issues

- **Poor data quality** due to:

- Non-use of standard reporting format
- No validation or verification of data
- Urban/Rural population dynamics
- Population movement/Migration

- **CDD issues** due to:

- *Poor selection*
- *Ineffective training*
- *Non-observance of DOT*

- **Community issues** linked to

- *Low participation due to low awareness*
- *Inadequate engagement of stakeholders/leadership*

- **Health services issues** include

- *Growing leadership apathy*
- *Weak supervision*
- *Poor timing of MDA*

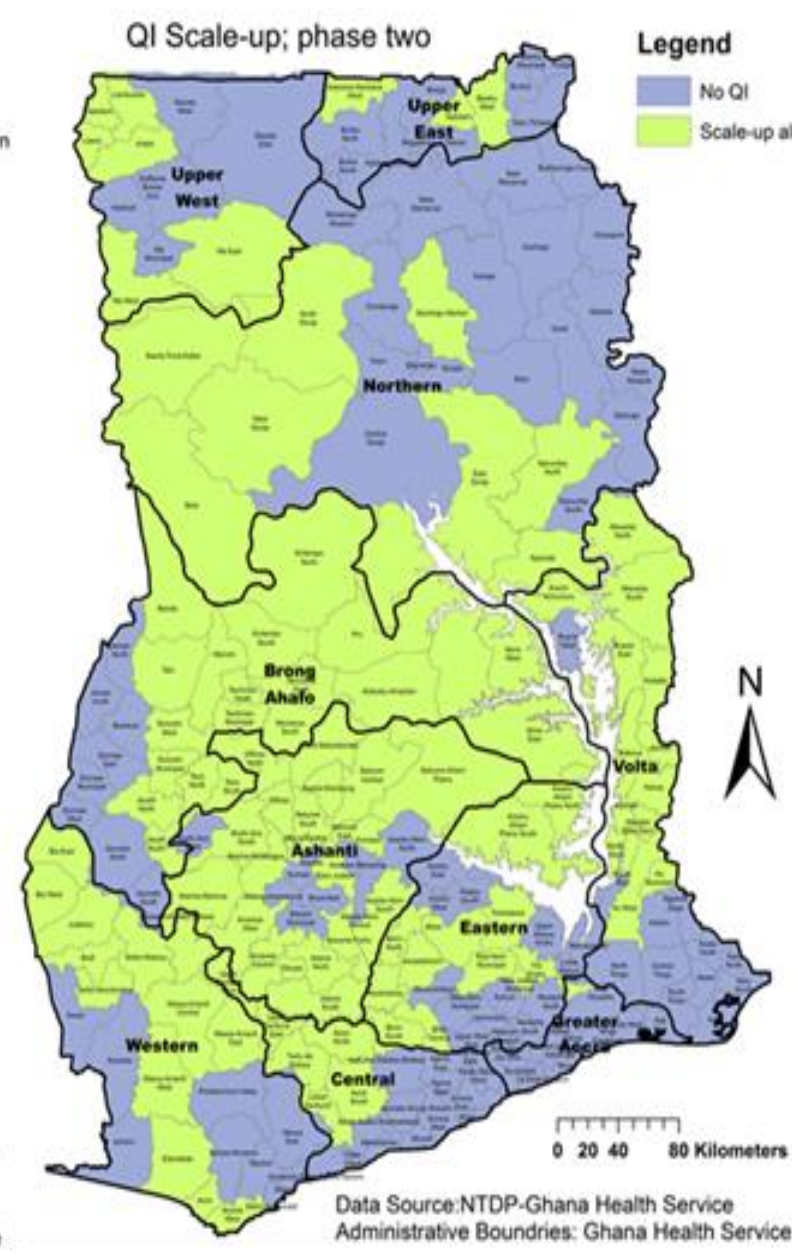
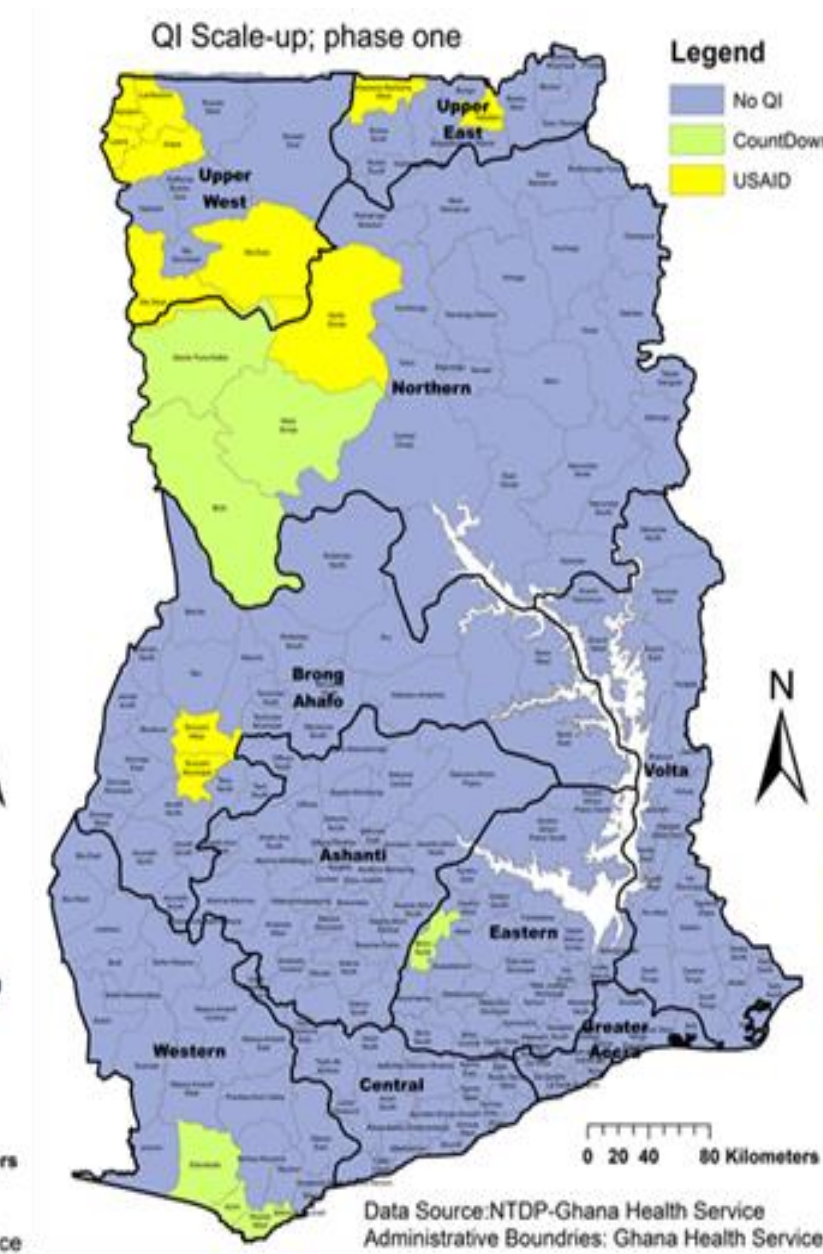
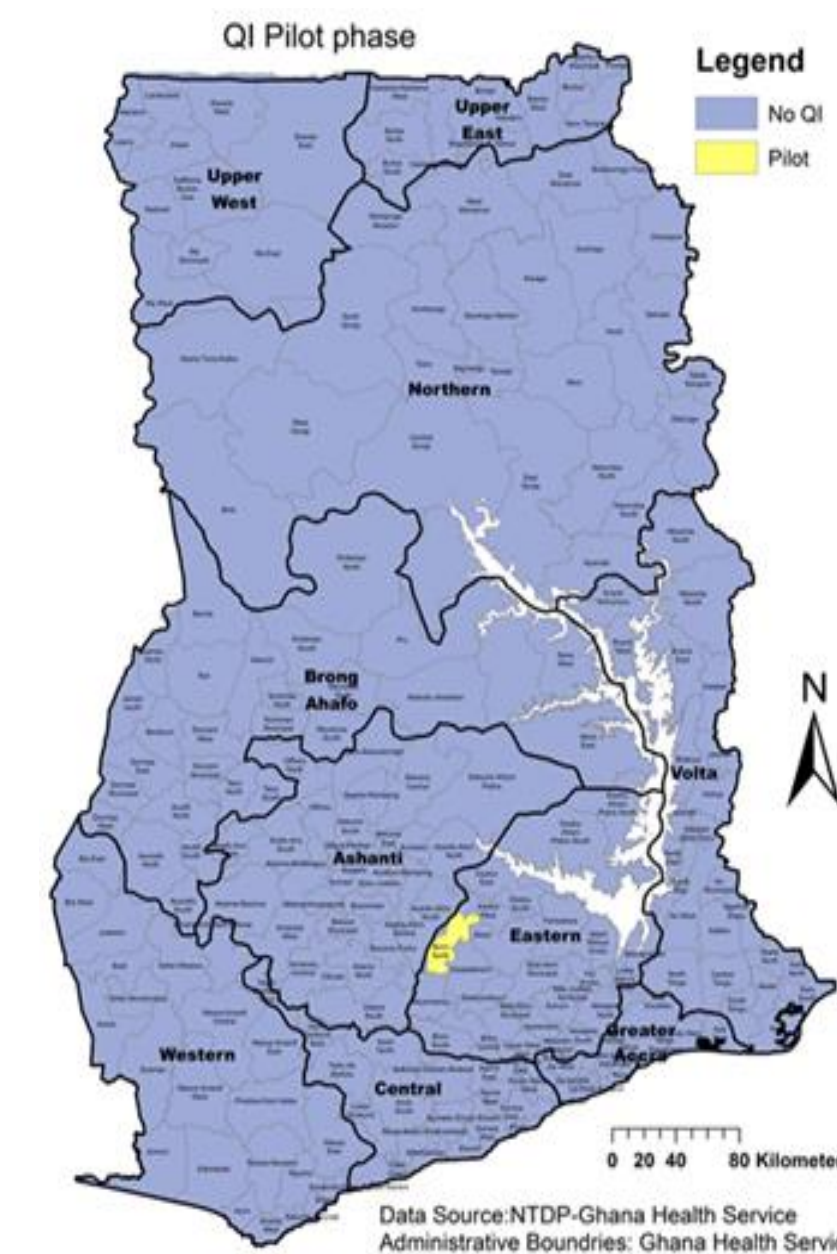
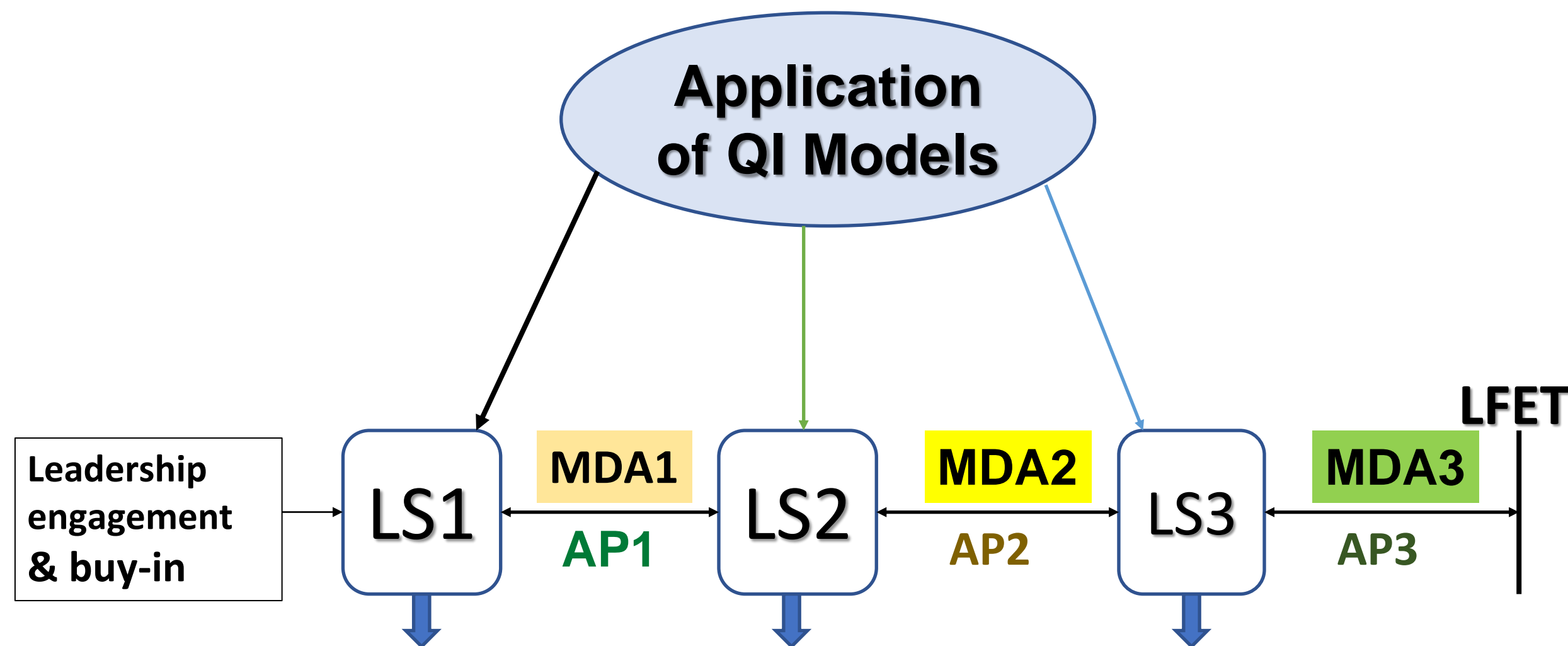


Improvement Aim and Objectives

- Aim :
 - Improve MDA effectiveness in LF hotspot districts
- Objectives :
 - Decrease MDA non-compliance
 - Improve MDA data quality



Applying QI Model (Collaborative) to strengthen NTDP



Change Ideas Tested – Data Quality

- Reviewed data management training module
- Instituted data validation and verification
- Population figures: Separation of migrant settlements (special population) from main communities



Change ideas tested

Health system factors

- Engagement of stakeholders, including partners, to review MDA treatment cycle
- Use of the new supervisory coverage tool
- Empower/delegation to regions and districts staff to own program

Community related

- Improved sensitization
- Effective engagement of social groups

CDD related

- Review CDD training manual
- Enhanced CDD incentives



Indicators measured

- **Process indicators;**

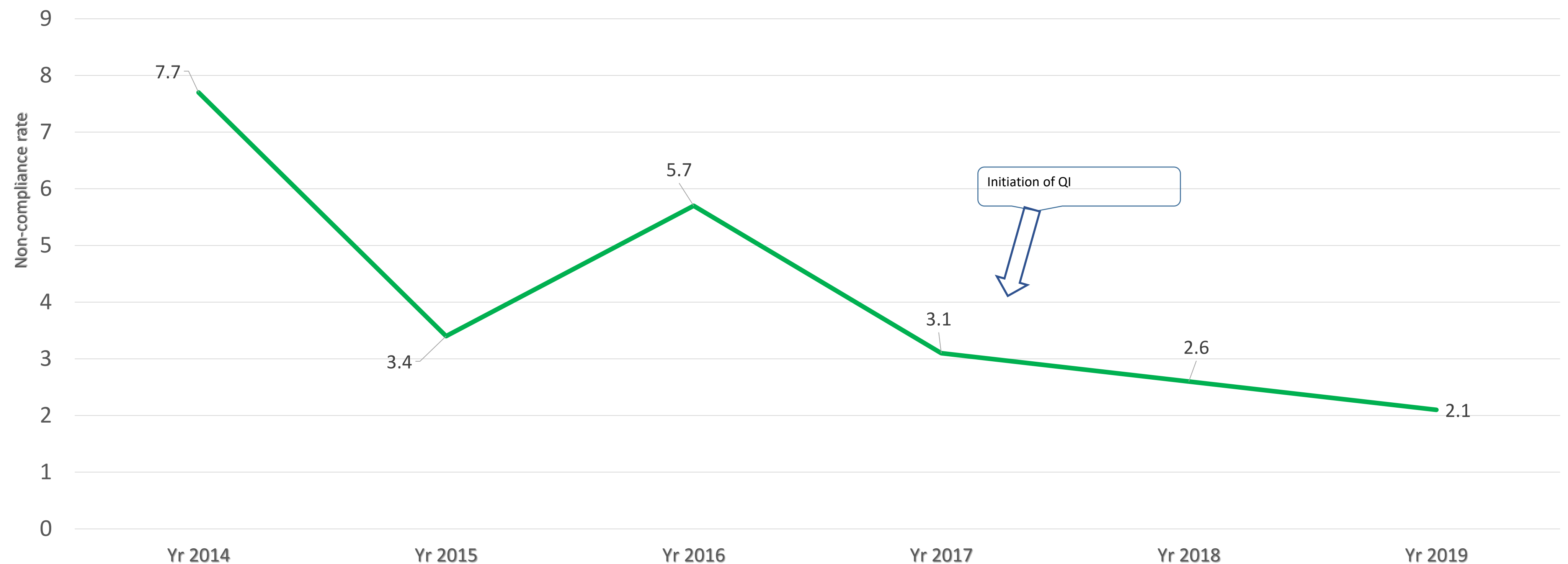
- Proportion of community meetings held in the sub-district
- Proportion of communities sensitized through video screening in the sub-district
- Proportion of health staff trained to supervise sub-district MDA activities
- Proportion of CDDs trained to participate in MDA activities
- Proportion of CDDs receiving at least thrice supervisory visits during the MDAs
- Number of communities for which rapid assessment checklist was used
- Proportion of registers validated by supervisors

- **Outcome Indicators**

- Non-compliance rate
- MDA coverage (therapeutic and geographic)



Results: Trend of Non-compliance rate, 2014-2019, Axim Municipal



The improvement aim is to reduce the non-compliance rate to less than 1%. There has been an improvement in data quality after applying QI change ideas such as data validation before reporting.



Impact of data validation on data quality, Sunyani Municipal

Year	Indicators					Gap (Difference)	Remarks/interpretation
	Registered population	Treated population	Non-eligible	Refused	Absent		
2013	105,415	94,901	8,214	1,366	1,422	-488	The number of treated population, non-eligible, refused and absent combined is <u>more than</u> the registered population.
2014	109,057	96,611	12,501	2,239	1,501	-3795	The number of treated population, non-eligible, refused and absent combined is <u>more than</u> the registered population.
2015	109,607	96,021	9,616	3,149	2,338	-1517	The number of treated population, non-eligible, refused and absent combined is <u>more than</u> the registered population.
2016	132,932	107,714	11,900	4,482	4,604	4232	The number of treated population, non-eligible, refused and absent combined is <u>less than</u> the registered population
2017*	130,537	110,655	15915	1,653	2,314	0	The number of treated population, non-eligible, refused and absent are equal to the registered population.
2018*	138,403	117,829	17559	1,147	1,868	0	The number of treated population, non-eligible, refused and absent are equal to the registered population.



Impact of data validation on 2019 MDA data quality

District	Population	Pop Treated	Non-Eligible	Refused	Absent	Gap
Sunyani Mun	128549	109756	16092	1058	1643	0
Sunyani West	101945	86164	12074	1180	2527	0
Ahanta West	103756	92269	9355	998	1134	0
Ellembelle	91860	81826	4409	1384	4241	0
Axim Mun	68830	59237	7919	400	1274	0
Sawla T. Kalba	86926	76756	4074	949	5147	0
Bole	76282	64410	5322	1420	5130	0
West Gonja	36319	29874	1918	60	4467	0



Lesson learned

- Improved sensitization
 - District teams through an enhanced sensitization activities ensured every household and groups were reached with MDA messages
 - Used laminated photos of LF morbidities in the campaign
 - Some LF sufferers offered to campaign as ambassadors of the program
- Use of the new supervisory coverage tool
 - The definition of refusal and absent were reviewed to fully accommodate three (3) revisits by CDDs and ensure compliance of the DOT strategy
- Instituted data validation and verification
 - Institution of data verification and validation measures at the community and sub-district levels helped to prevent under and over registration of registrants
 - All supervisors received training on data validation to verify and validate data at all levels
- Mitigation Fluctuating population
Indigenous population must be separated from migrants and other temporal settlements and registered separately.



Way forward

- *Institutionalize the best practices in all the districts*
- *Continue to use QI model to test new ideas of change*





THANK YOU



ntd-ngonetwork.org



Questions for Debate

- 1. How to integrate QI into a program that operates through campaigns?**
- 2. How to measure the effect of changes for NTD programs?**
- 3. How to test the validity & measure the added value of QI for NTD programs, using a mix of implementation science and formative research?**



With thanks to our generous sponsors...



BILL & MELINDA
GATES *foundation*



International Foundation
for Dermatology



ntd-ngonetwork.org

