

Building a Quality Health System in Cambodia

Lessons from International Experience

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Outline

- **What are the approaches to improve quality of services?**
- **What are the common features of a quality health system?**
- **How can this knowledge benefit the Cambodian health system?**

Most Recent Significant Publications/1



The Lancet Global Health Commission

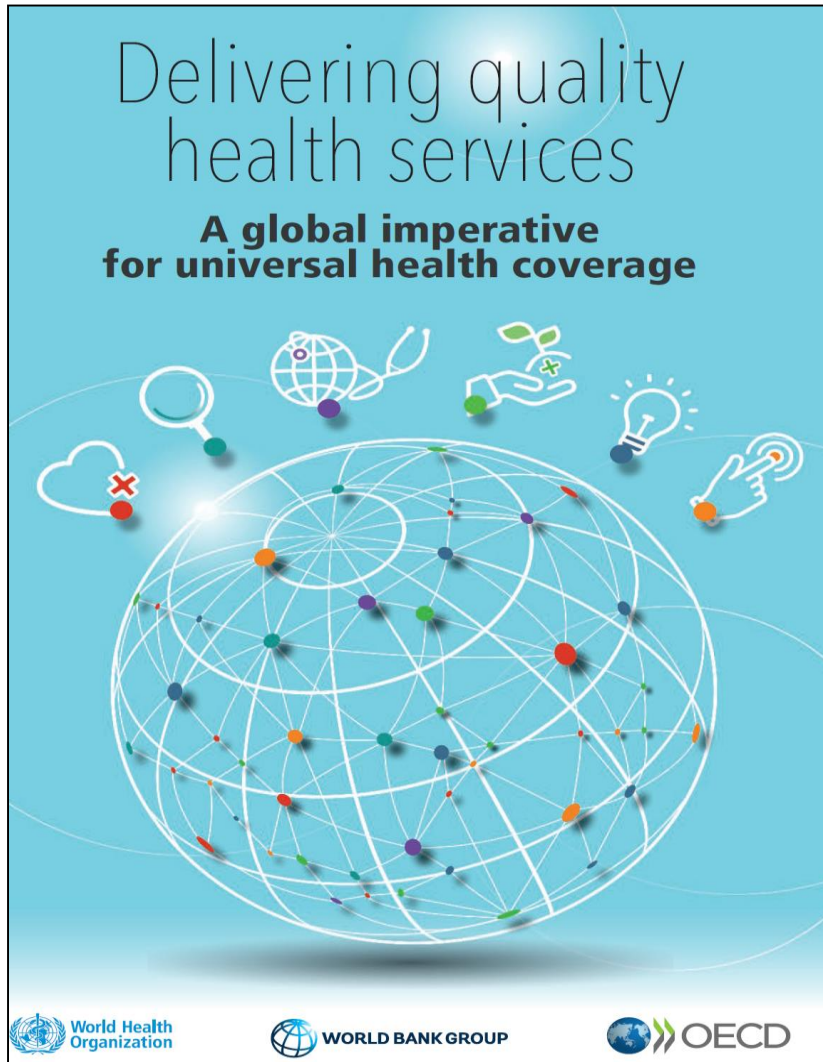
High-quality health systems in the Sustainable Development Goals era: time for a revolution



Margaret E Kruk, Anna D Gage, Catherine Arsenault, Keely Jordan, Hannah H Leslie, Sanam Roder-DeWan, Olusoji Adeyi, Pierre Barker, Bernadette Daelmans, Svetlana V Doubova, Mike English, Ezequiel García Elorrio, Frederico Guanais, Oye Gureje, Lisa R Hirschhorn, Lixin Jiang, Edward Kelley, Ephrem Tekle Lemango, Jerker Liljestrand, Address Malata, Tanya Marchant, Malebona Precious Matsoso, John G Meara, Manoj Mohanan, Youssoupha Ndiaye, Ole F Norheim, K Srinath Reddy, Alexander K Rowe, Joshua A Salomon, Gagan Thapa, Nana A Y Twum-Danso, Muhammad Pate



Most Recent Significant Publications/2



- **Registration, licensing, accreditation**
- **Clinical governance (audit, continuous education...)**
- **Public reporting and benchmarking**
- **Performance-based financing**
- **Training + supervision**
- **Regulations**
- **Standards**
- **Job-aids, clinical pathways**
- **Collaborative and QI teams**
- **Patient involvement (expert patients, self-management)**
- **Information, empowerment and demand**
- **Etc.**

[Delivering Quality Health Services](#)

**QUALITY ISSUES COMMON TO MANY
HEALTH SYSTEMS AND THEIR
MAGNITUDE**

What is quality of care

*The degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge
(WHO)*

Dimensions of Quality

1. Effectiveness

1. Patients do not receive all the care they need

2. Safety

2. Adverse drugs events and unsafe care kill many patients

3. Patient-centeredness

3. Patients are not involved in making decisions about their health and the way care is delivered

4. Timeliness

4. Waiting times are too long and dangerous for emergency situations

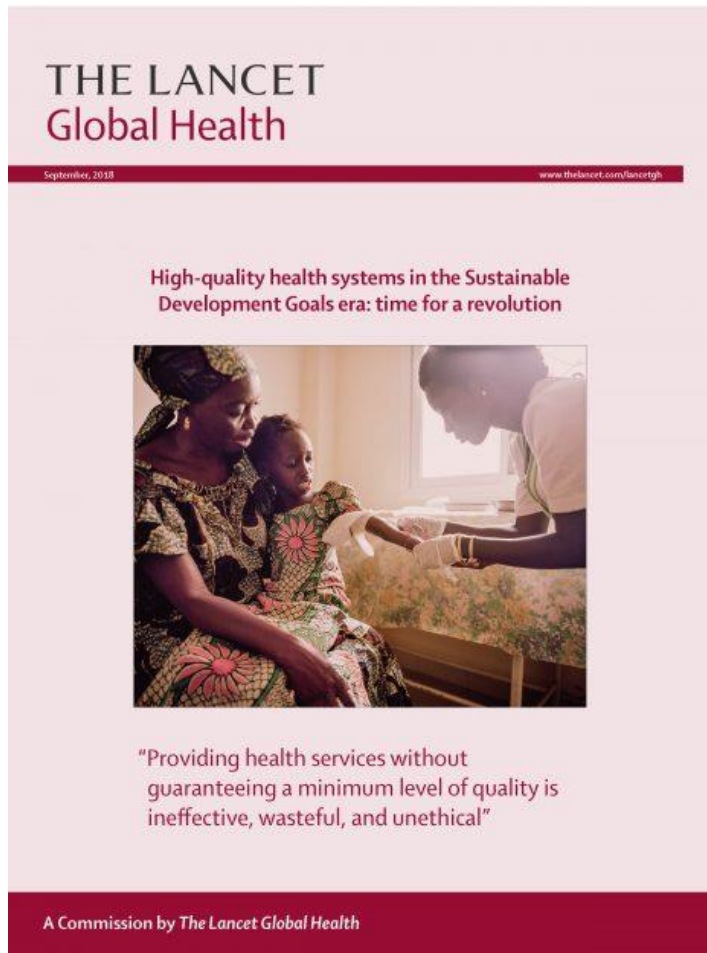
5. Efficiency

5. Lots of resources are wasted on care that is not needed

6. Equity

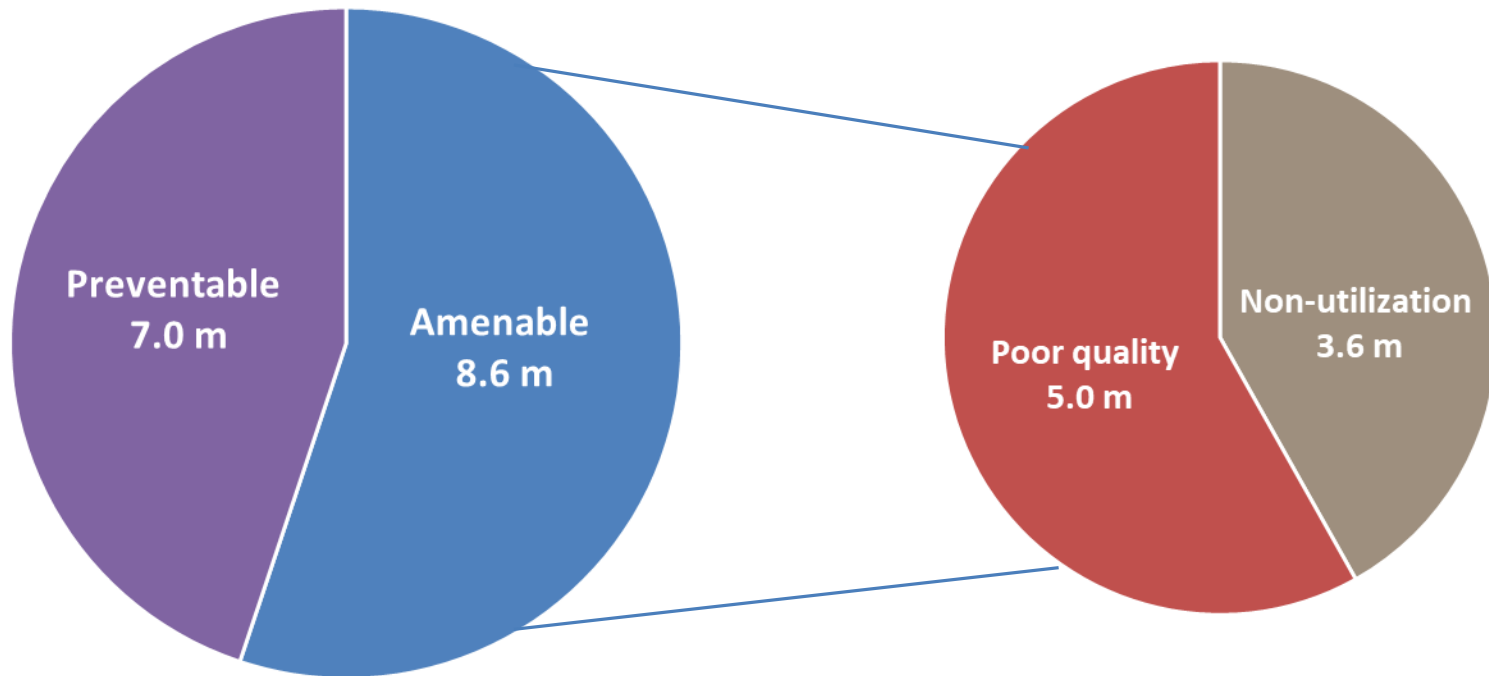
6. Access to care and quality of care varies per gender, socio-economic status, the place you live, etc.

Lancet Global Health Commission on High Quality Health Systems



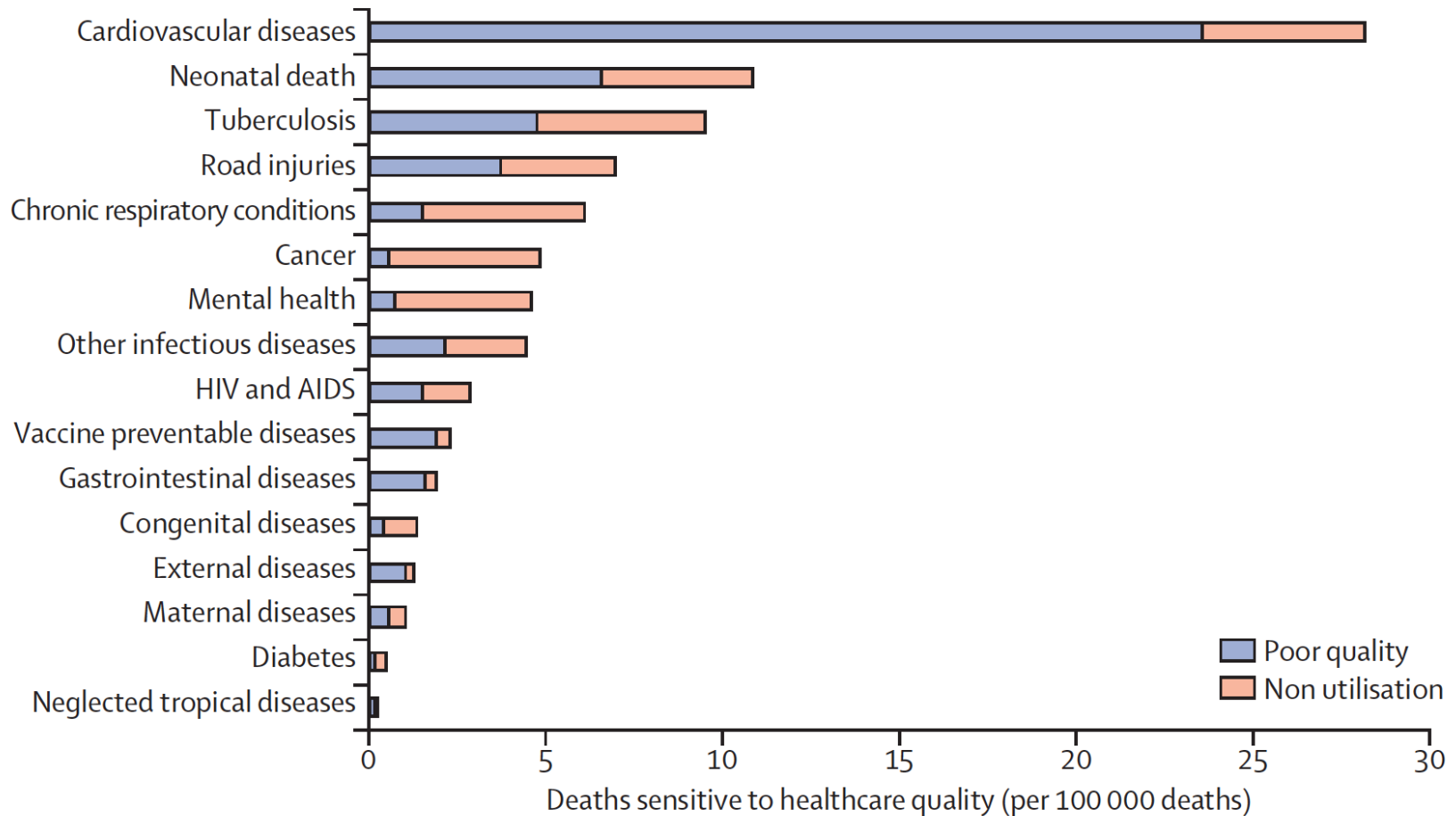
www.hqsscommission.org

More people die from poor quality care than poor access to care in LMICs

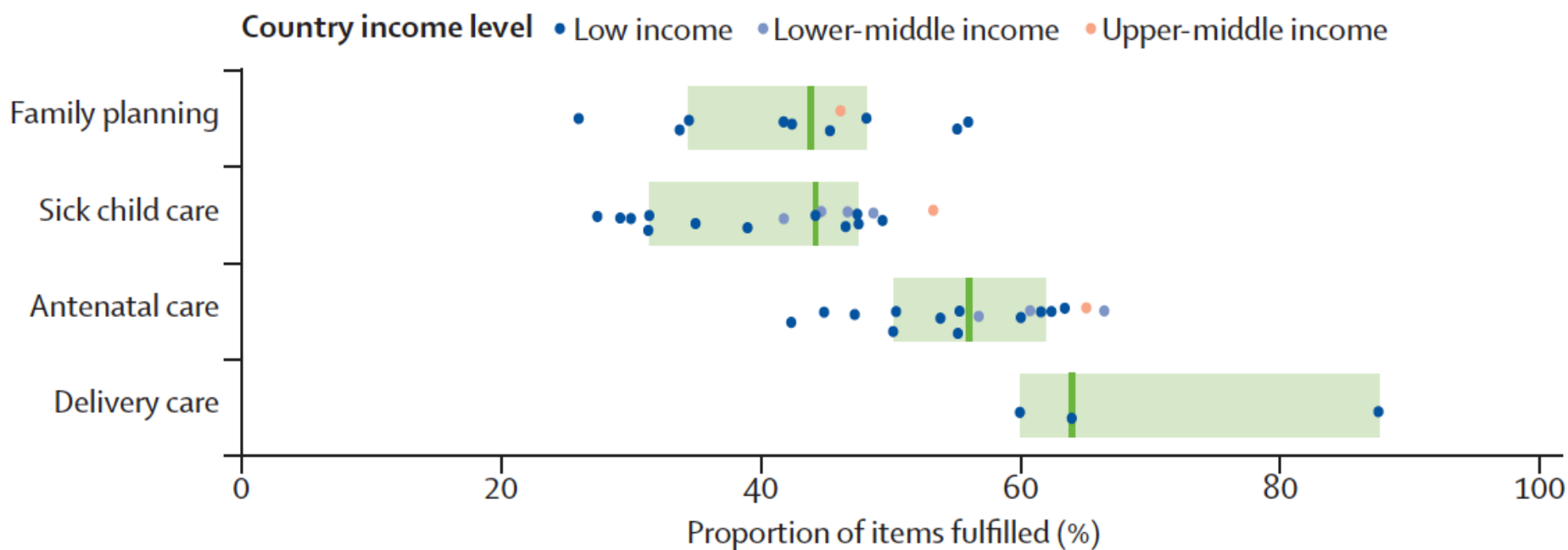


Reproduced with permission from Margaret E. Kruk, Associate Professor of Global Health, Harvard T.H. Chan School of Public Health and Chair, HQSS Commission. High Quality Health systems in the SDG Era. Lancet. www.thelancet.com/lancetgh Published online September 5, 2018 [http://dx.doi.org/10.1016/S2214-109X\(18\)30386-3](http://dx.doi.org/10.1016/S2214-109X(18)30386-3) 57

Quality plays a major role across conditions

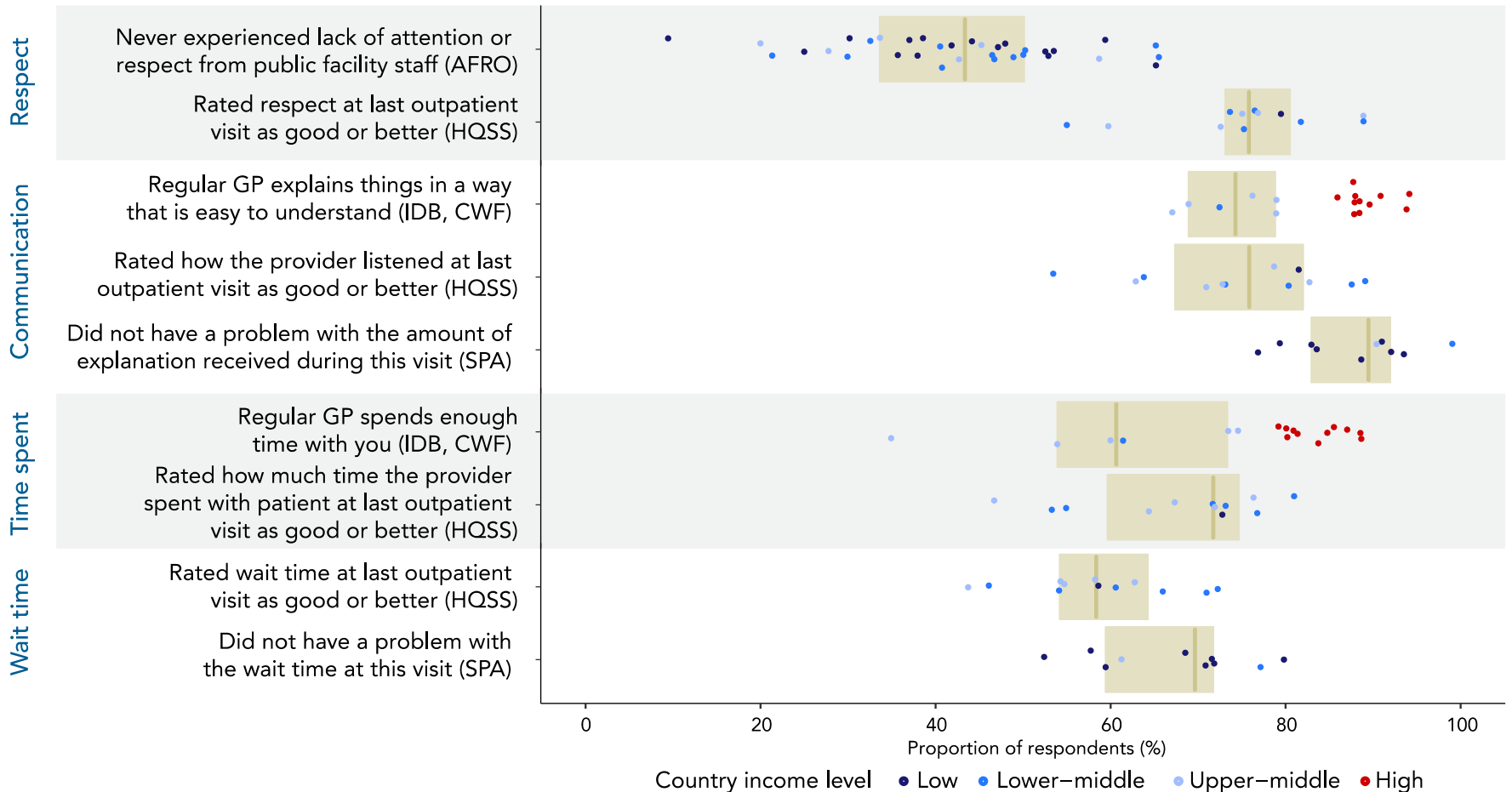


Health providers perform 1/2 of recommended clinical actions for common preventive and curative care



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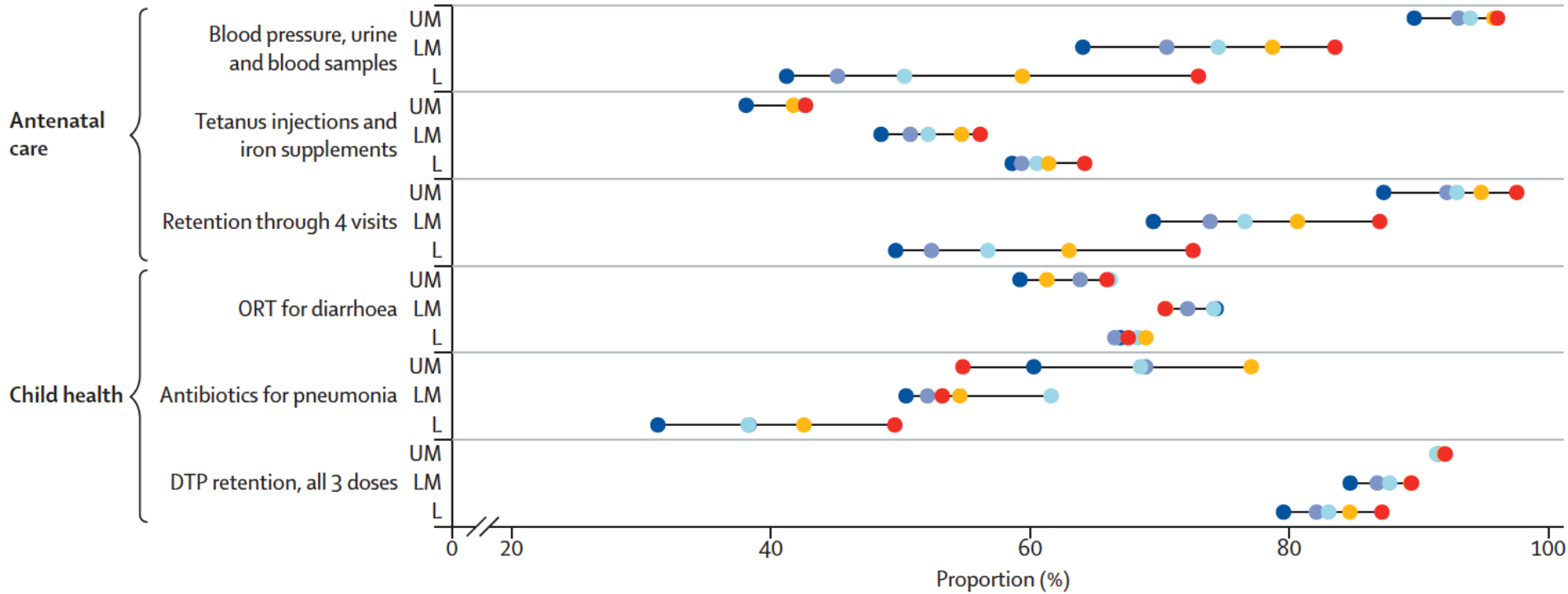
Approximately 1/3 of patients experience disrespectful care, short consultations, poor communication or long wait times



Poor quality for the poor

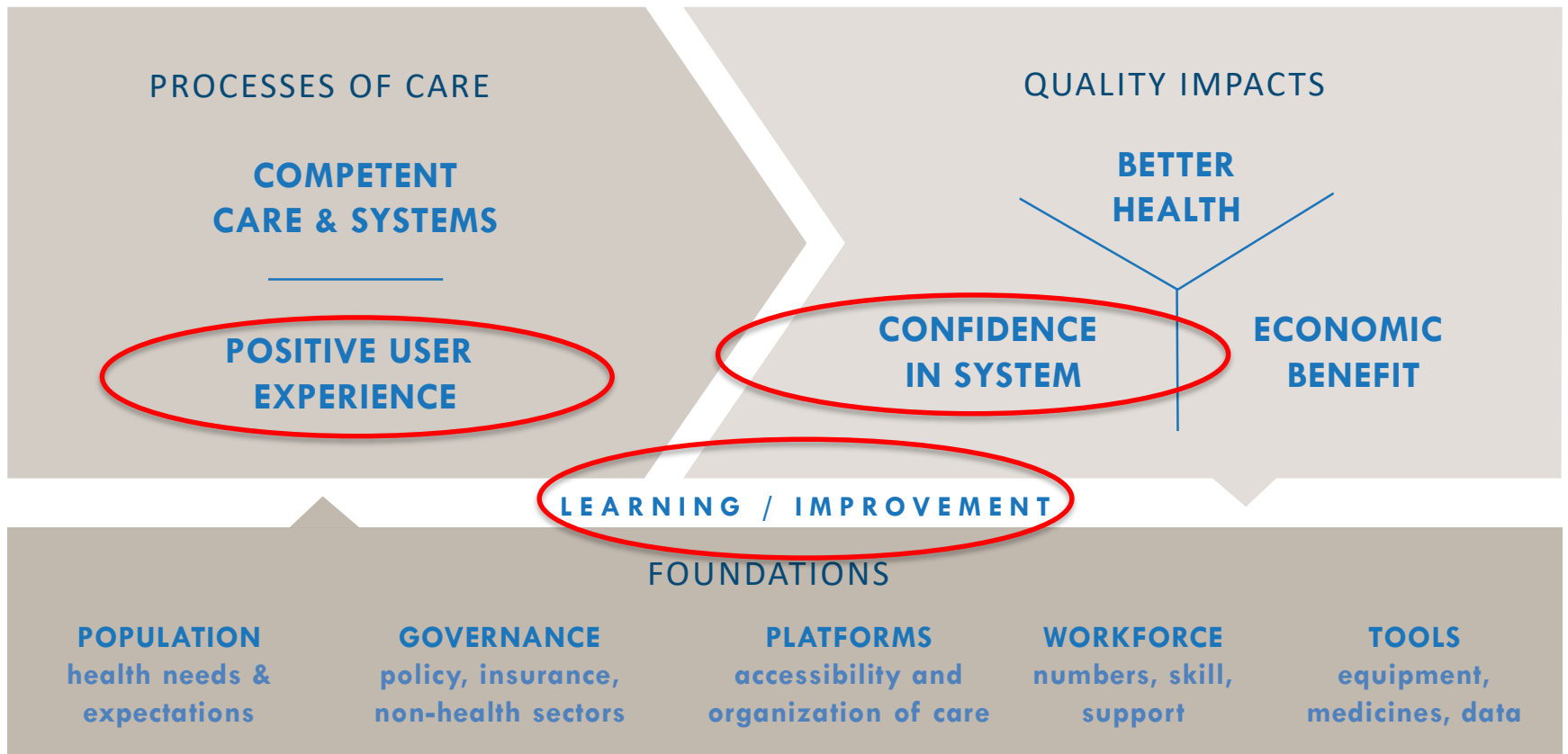
Country income level L = lower income LM = lower-middle income UM = upper-middle income
 Wealth quintiles ● Q1: poorest ● Q2 ● Q3 ● Q4 ● Q5: least poor

A



HIGH QUALITY HEALTH SYSTEM FRAMEWORK

FOR PEOPLE



EQUITABLE

RESILIENT

EFFICIENT

Typology of Quality Improvement Interventions

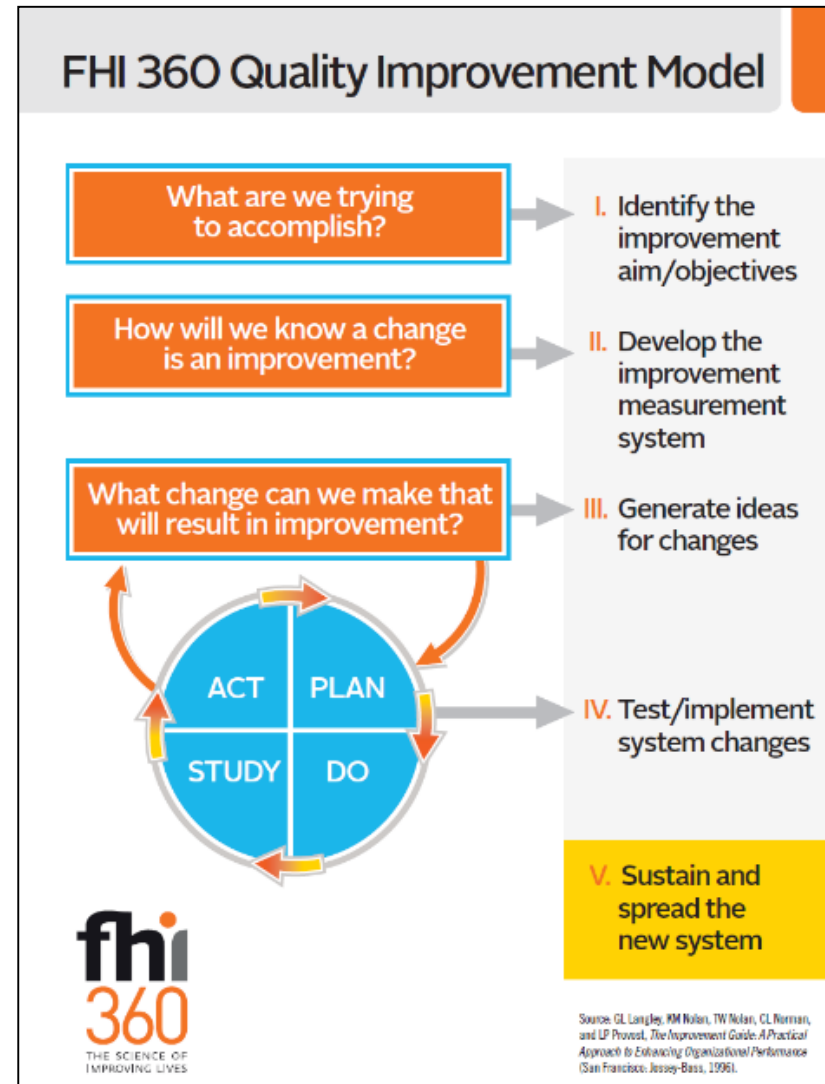
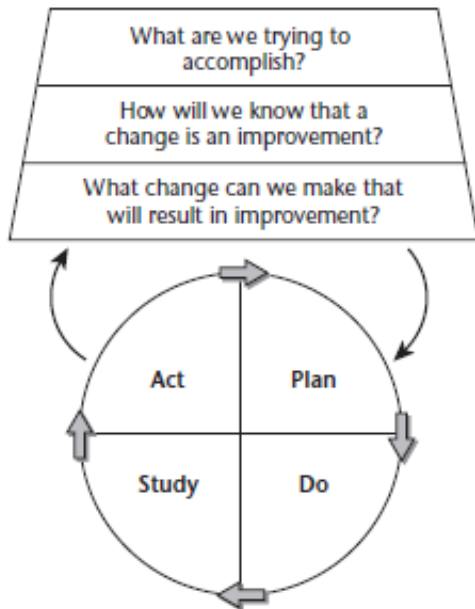
Level of the health system	Category of driver	Interventions
Macro (national government)	Population demand & empowerment	Participatory groups/community empowerment; community oversight/monitoring; consumers reporting;
	Governance & regulation	Licensing, certification, accreditation; strategic purchasing; accountability mechanisms; quality measures; waste reduction; setting standards; benchmarking;
	Service delivery	Quality-oriented national health policies, including private sector;
	Education	Quality-oriented pre-service training of health professionals; training in health system management, public health and QI;
	Incentives and finance	Non-financial incentives; performance-based incentives; recognition/rewards;
Meso (region, province, district)	Network of care	Learning collaboratives; task-shifting;
	System management	District system management and implementation tools; quality assessment; mortality reviews; checklists; protocols;
Micro (service delivery)	Health worker	In-service continuing education; supportive supervision; job-aids; checklists; guidelines; self-assessment; interpersonal communication skills;
	Facility	Improve infrastructure; ensure supplies; CQI teams; team-based and patient-centered care; integrated services; case management;

Examples of Results Achieved with the PDSA-based Model for Improvement and managed through a QI Collaborative

The PDSA-Based model for improvement

- **Improvement concepts**
 - **No improvement without change**
 - **Not every change is an improvement**

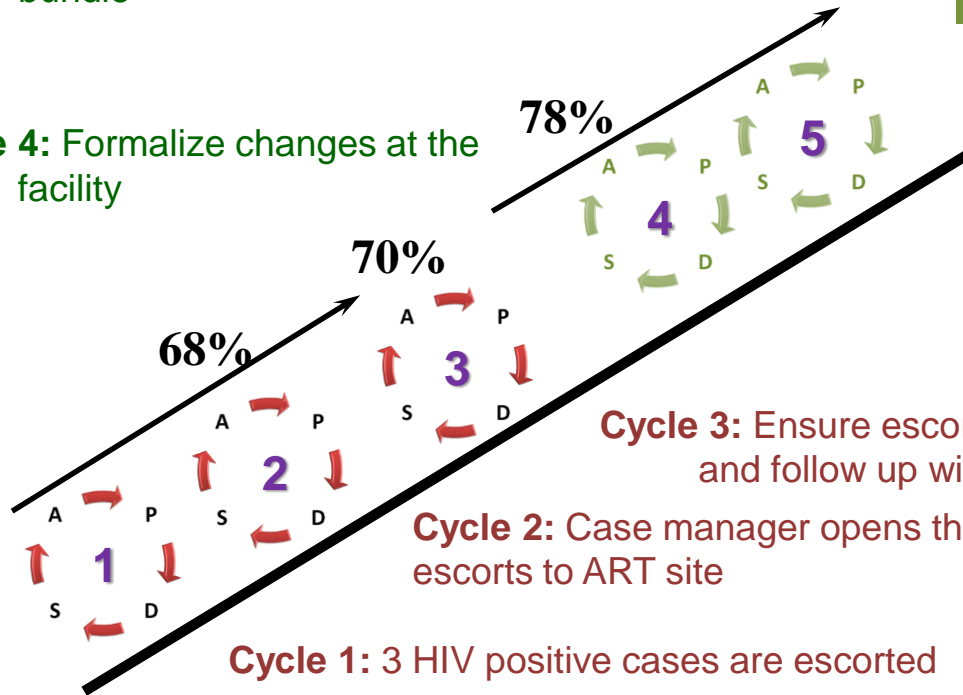
FIGURE 1.1. THE MODEL FOR IMPROVEMENT.



Cycle 5: Scale up to all health facilities as a bundle

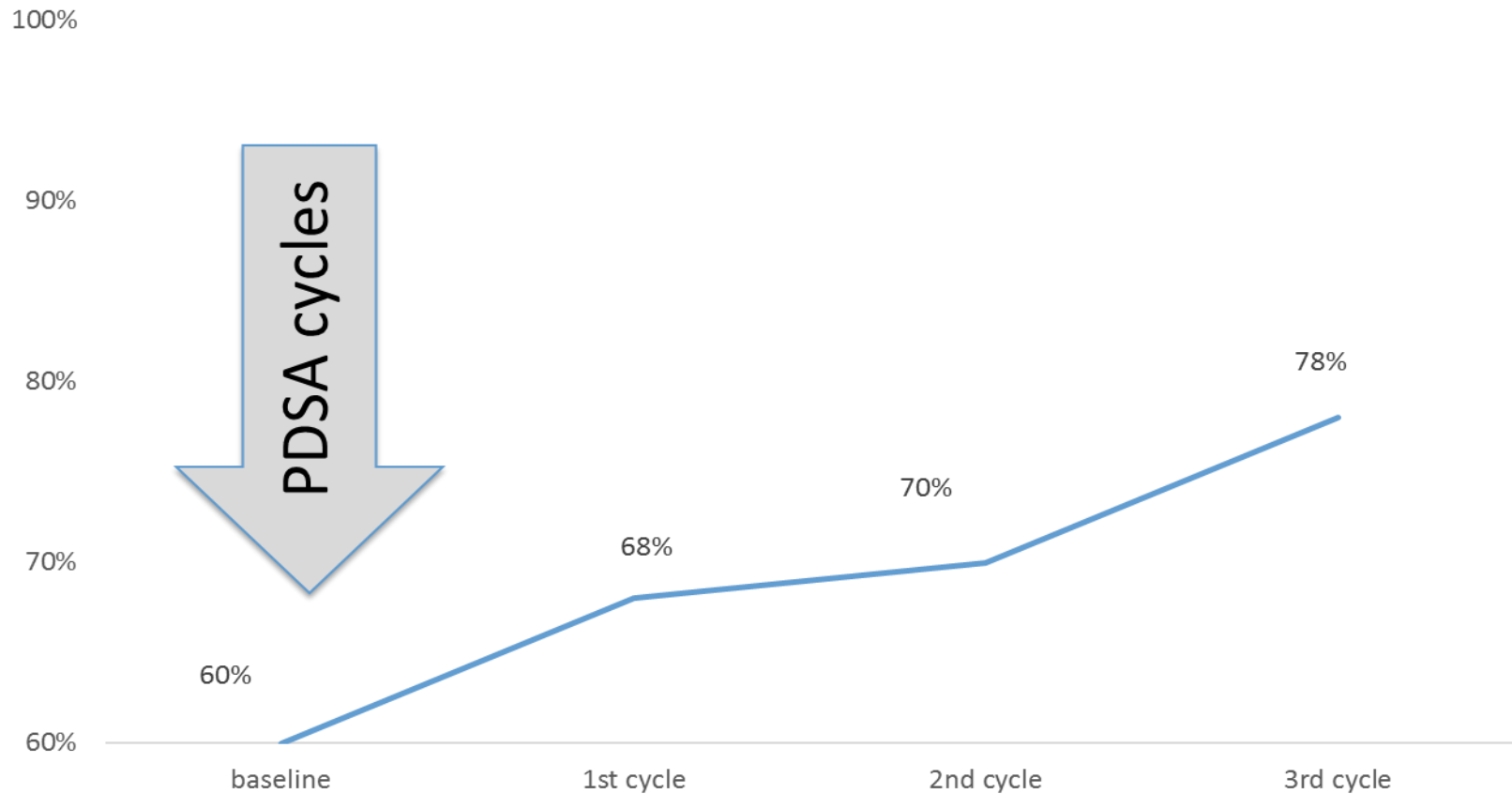
78% of enrolment rate after 3 cycles

Cycle 4: Formalize changes at the facility



59% of HIV positive adults are enrolled

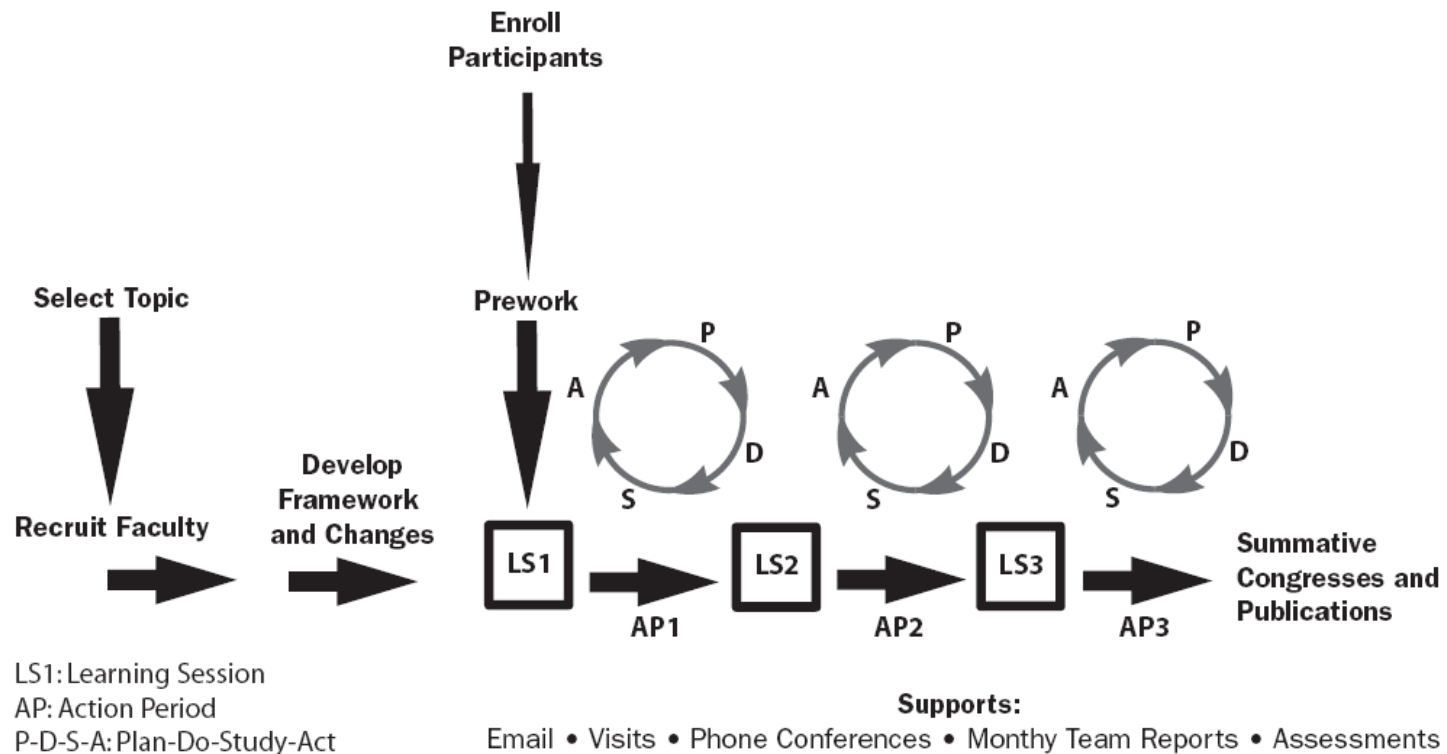
Results: Percentage of newly HIV diagnosed cases enrolled in care in 5 facilities



The Collaborative Model to Manage a Large-Scale QI Effort

<http://www.ihl.org/IHI/Results/WhitePapers/TheBreakthroughSeriesIHIsCollaborativeModelforAchieving+BreakthroughImprovement.htm>

Figure 2. Breakthrough Series Model

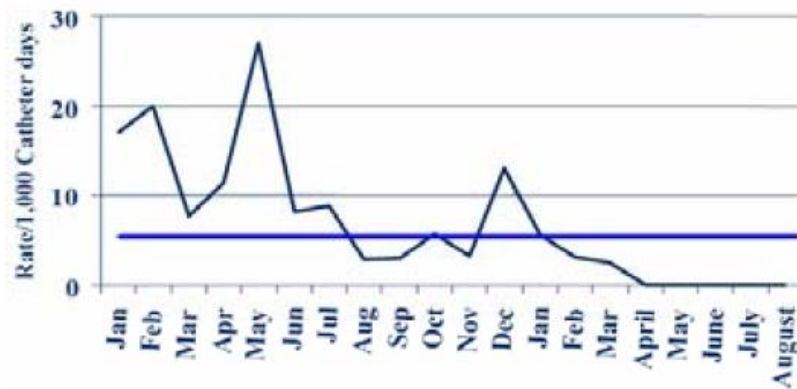


Selected Results from QI Efforts: US Domestic

- **5-million lives campaign:** 42% decrease in central-line associated bloodstream infections; 70% reduction in pressure ulcers; elimination of ventilator-associated pneumonia; MRSA infection rate decreased from 10% to < 1%.
- **Cost reduction:** Cost of Coronary Artery Bypass Grafting dropped from over \$15,000 to \$10,000 per case (33% decrease)
- **Appointment wait reduction:** third next available appointment reduced from 47 days to 0 days

Can it be done? Michigan, USA

Reductions in ICU catheter-related blood stream infections across the whole State of Michigan USA



The work of Professor Peter Pronovost's team at Johns Hopkins University Hospital

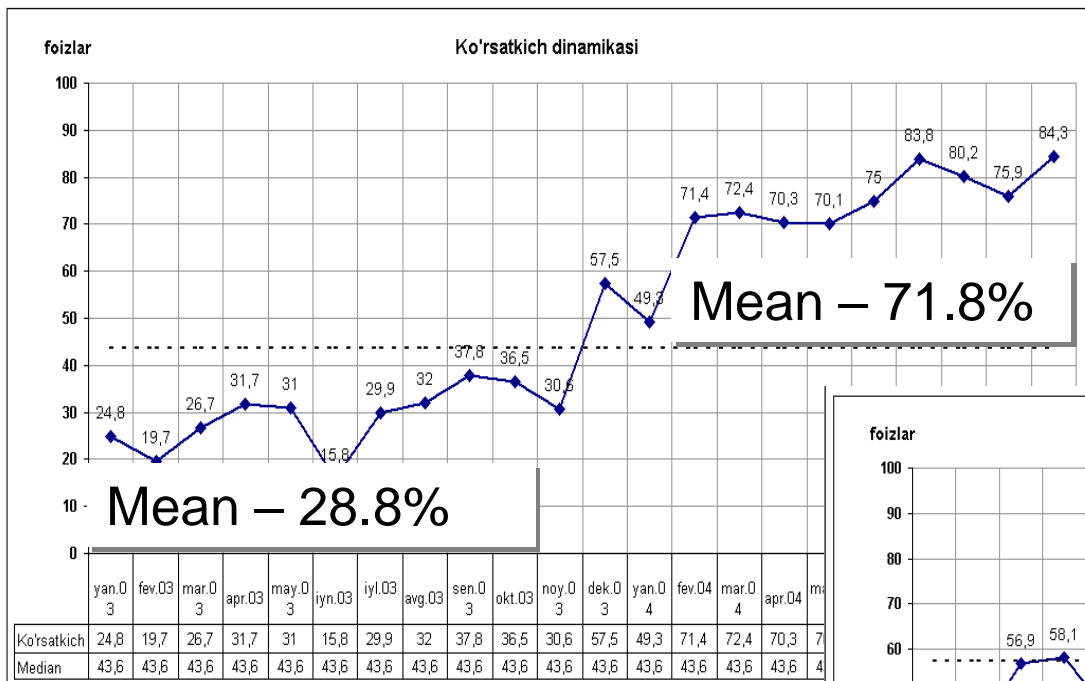


Selected Results from QI Efforts in LMICs

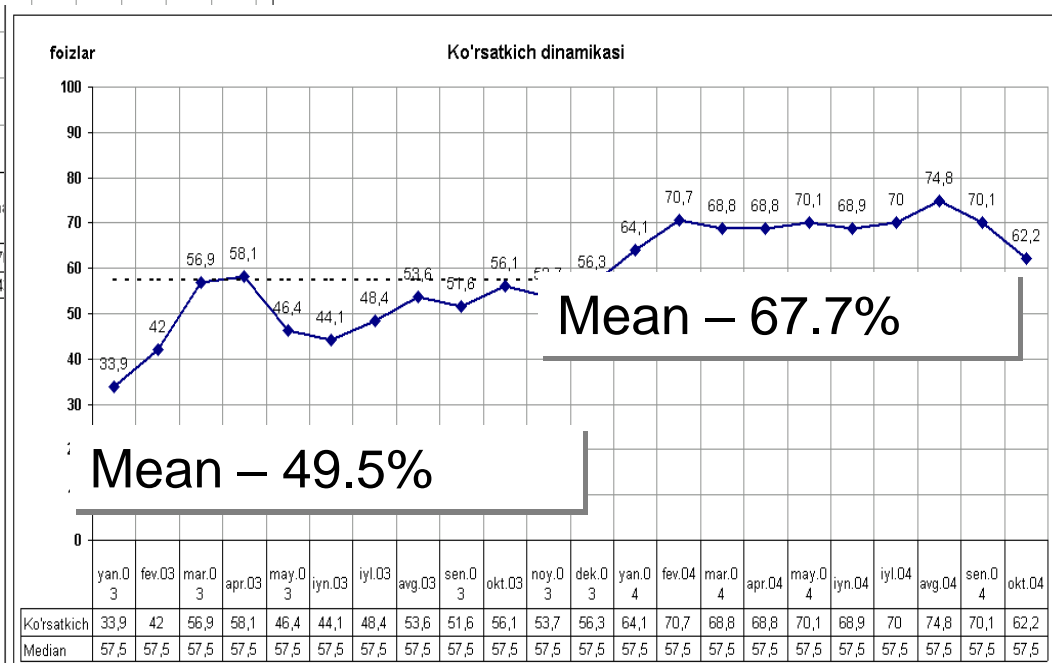
- **Niger:** Post Partum Hemorrhage rate decreased from 2.5% at baseline to 0.2% (*URC/HCI project*)
- **Malawi:** neonatal mortality rate was 22% lower than control clusters (OR = 0.78, 95% CI 0.60–1.01), and the perinatal mortality rate was 16% lower (*IHI/Maikhanda project*)
- **Tanzania:** HIV+ clients who received all eight essential care services rose from 13.3% to 100% at Dodoma Regional Hospital and from 3.3% to 70% at Makole Health Center (*FHI 360/Quality for Leadership project*)

Aim: improve quality of services for adults with hypertension

From 3 health centers in 2002 to entire province with over 100 Health centers in 2005

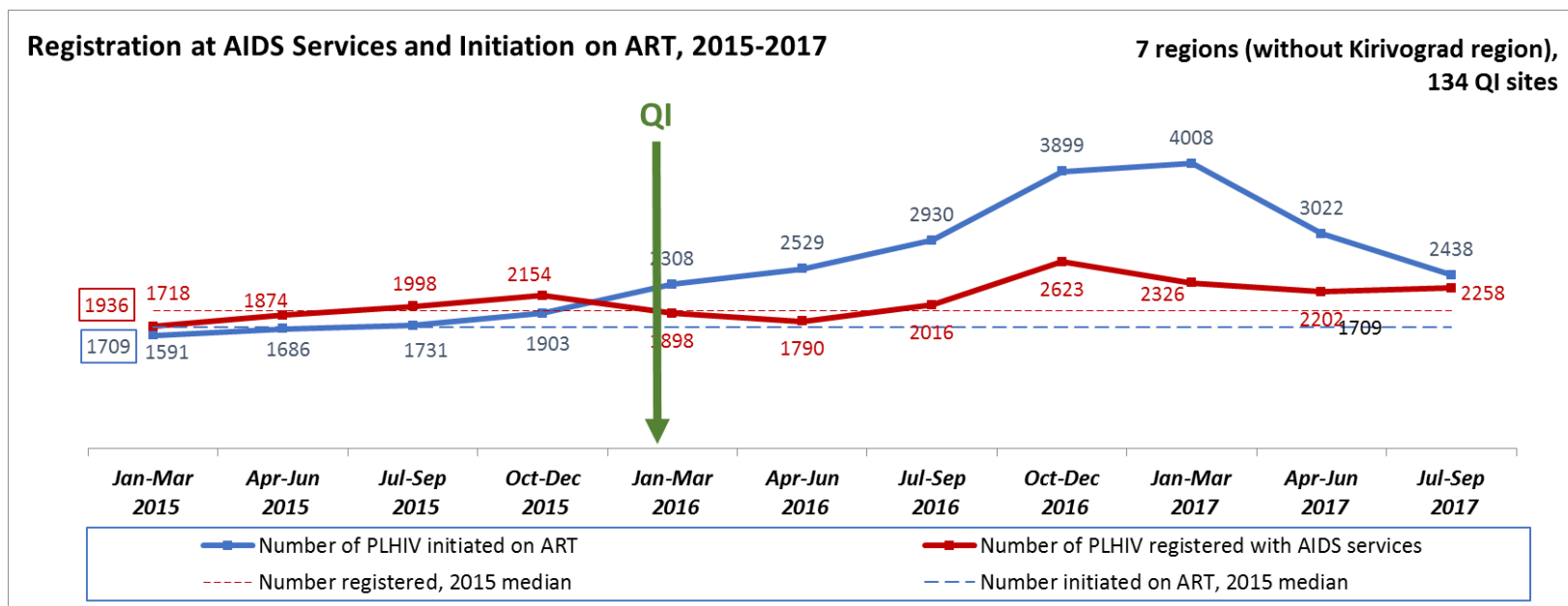


Percentage of patients correctly diagnosed with hypertension



Percentage of patients whose blood pressure is under control

Aim: Increasing HIV Enrollment and Initiation in Ukraine



Changes Tested:

1. Conducting required lab tests **over one patient visit**;
2. **Rural ART sites started providing case management**;
3. **Increased working hours** of the ART sites, and improved logistics between the ART sites and laboratories **which shortened turnaround time of diagnostic results**;
4. **Sent reminders through text messages / phone calls** to LTFU patients;
5. **Engage PHC services** to find PLHIV that are lost to follow-up.

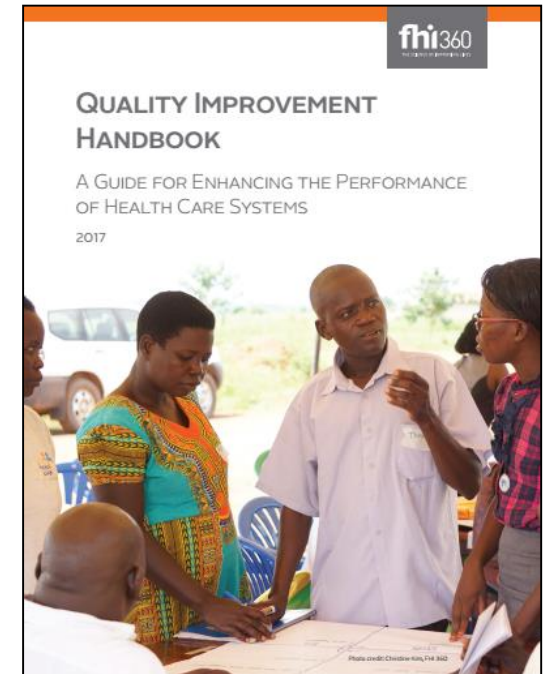
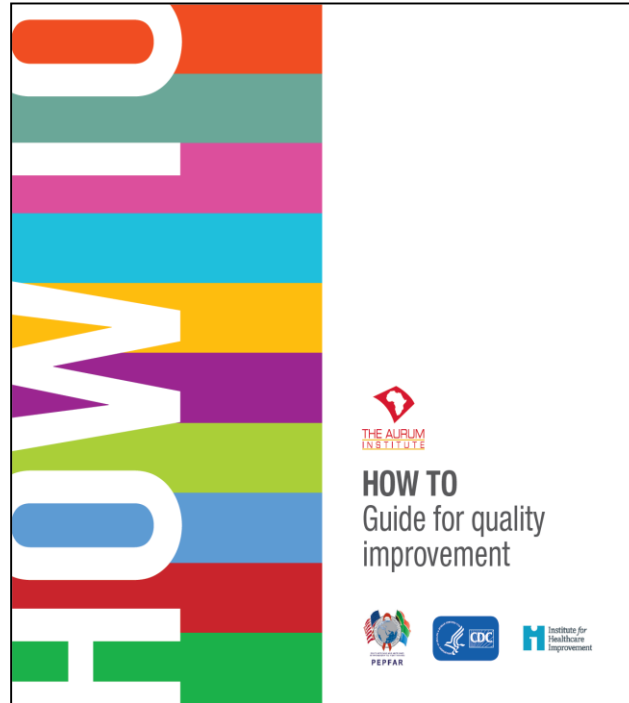
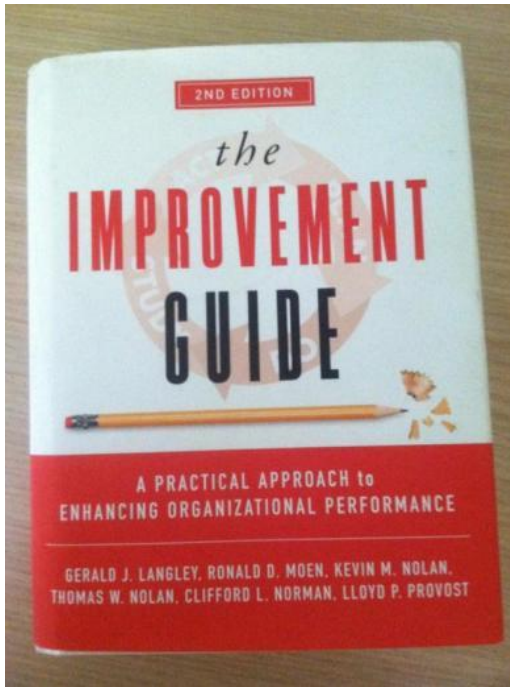
What do we know/1?

Well-managed QI efforts produce results when specific conditions are met:

- **Will**
- **Ideas**
- **Execution**
- **Synergies between QI model and other elements of a quality health system**

“QI works”

Good References on the QI models



Most Recent Significant Publications/3

Effectiveness of strategies to improve health-care provider practices in low-income and middle-income countries: a systematic review

Alexander K Rowe, Samantha Y Rowe, David H Peters, Kathleen A Holloway, John Chalker, Dennis Ross-Degnan*

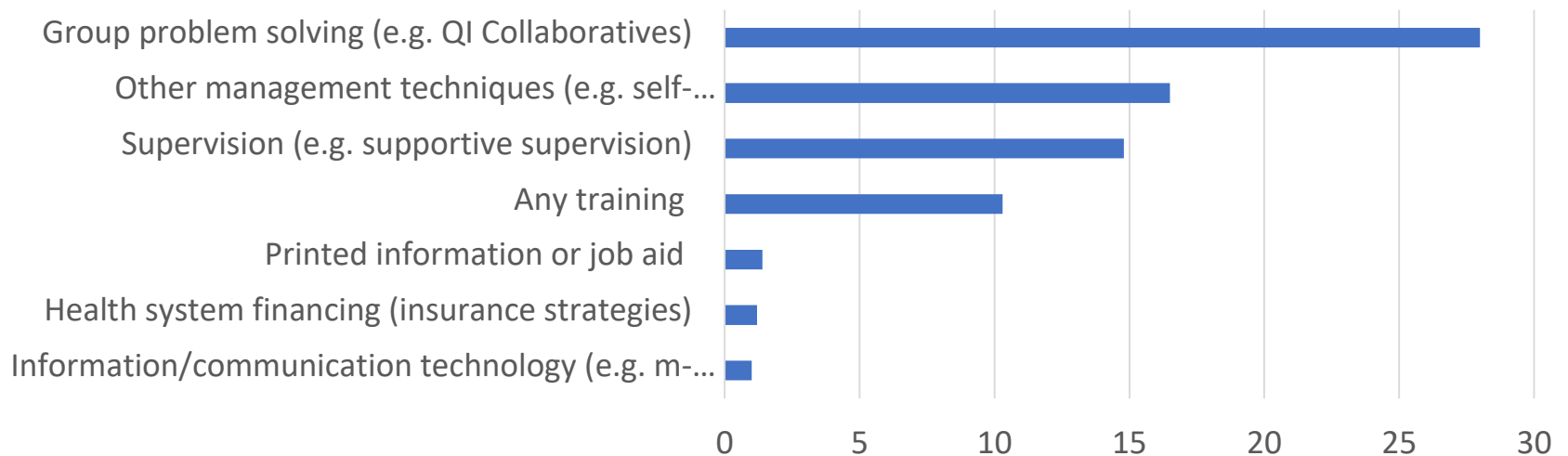


[Strategies to Improve Health Providers Performance](#)

What Works: Interventions to Improve Health Worker Performance

Rowe A et al., *Lancet* [VOLUME 6, ISSUE 11](#), PE1163-E1175, 2018

Mean Effect Size of Single Interventions



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What Combined Interventions to Improve Health Worker Performance:

Rowe A et al., *Lancet* [VOLUME 6, ISSUE 11](#), PE1163-E1175, 2018



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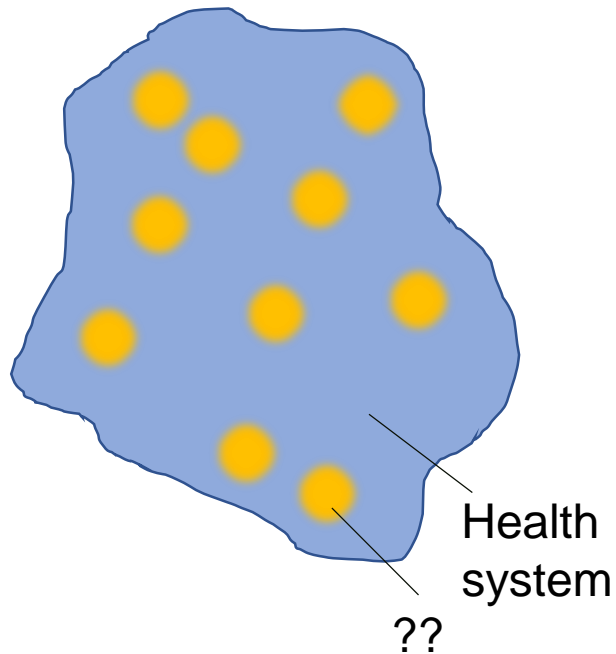
What do we know/2 ?

QI Projects that remain geographically limited are unlikely to have a sustainable impact on health without a scale-up strategy built from the onset of the QI effort.

“Scalability is essential”

Scalability of Improvement Successes

Heat Map of a Health System



“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

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Selected Scale-Up Models

Models	Conditions of Use	Examples
Breakthrough Collaborative	Complex issues requiring multiple changes/interventions over a long period of time	Decrease maternal mortality
Campaign	Accelerate implementation of a well-know intervention	Immunization campaign
Communities of Practice	Self-organized groups exchanging on one topic	QI CoP
Wave sequence	Complex interventions involving multiple actors working as peers	Organize HIV services for key populations
Competition	Incentives to diverse groups competing for a prize	Linked to PBF
Hybrid	Combination of the above: collaborative + wave sequence	Any topic

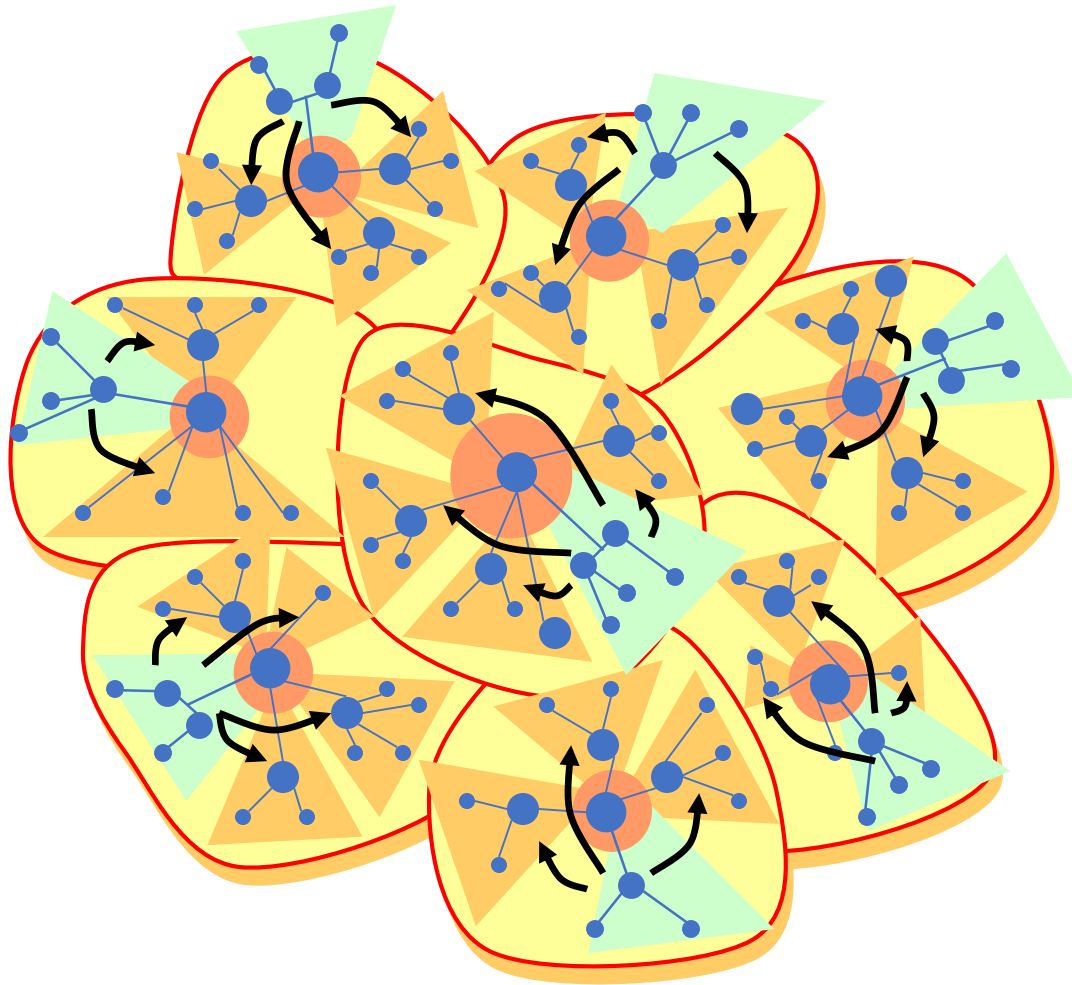
A brief compendium of networked learning methods. By [Joe McCannon, M. Rashad Massoud, & Abigail Zier Alyesh](#) Oct. 20, 2016



Spread Collaborative

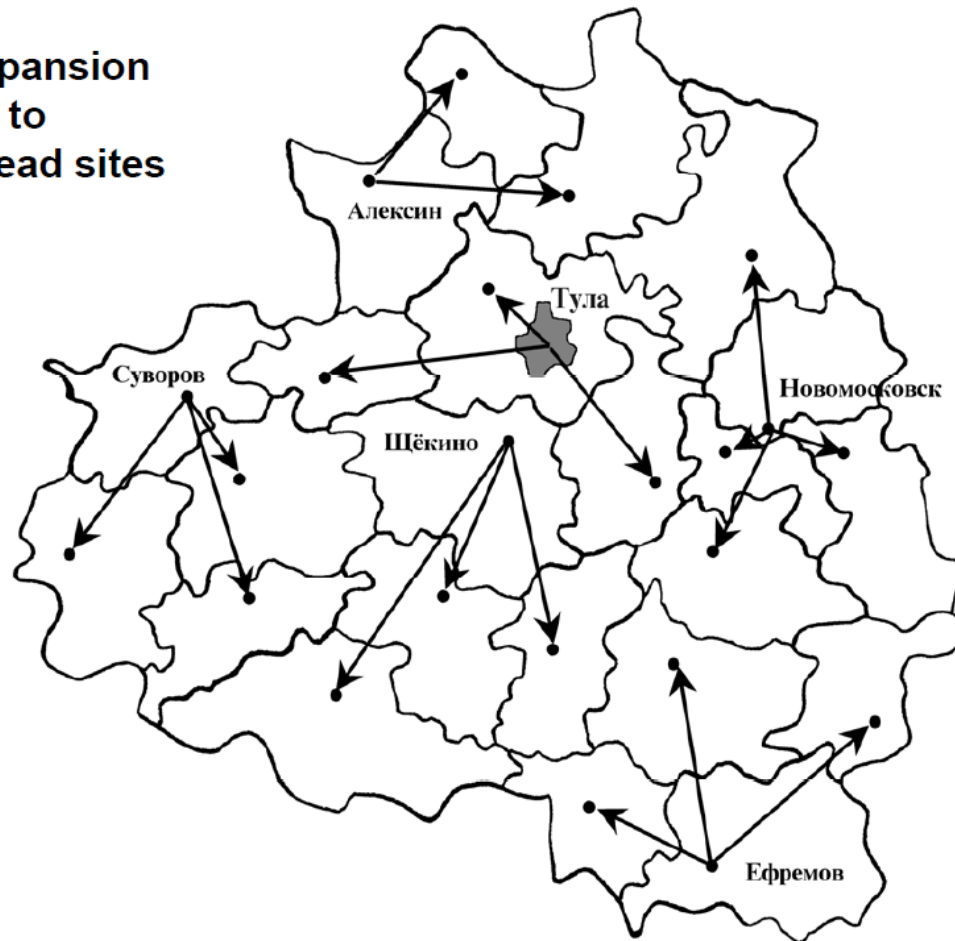
- **Spread phase of the collaborative (Spread collaborative)**
- **Spread WHAT:**
 - Final change package that has been tested
- **TARGETS of the spread:**
 - Units similar to the demonstration ones
- **HOW to spread:**
 - Multiplicative model
 - Sequence of waves
 - Led by the pilot units

Scaling Up: Wave Sequence Spread



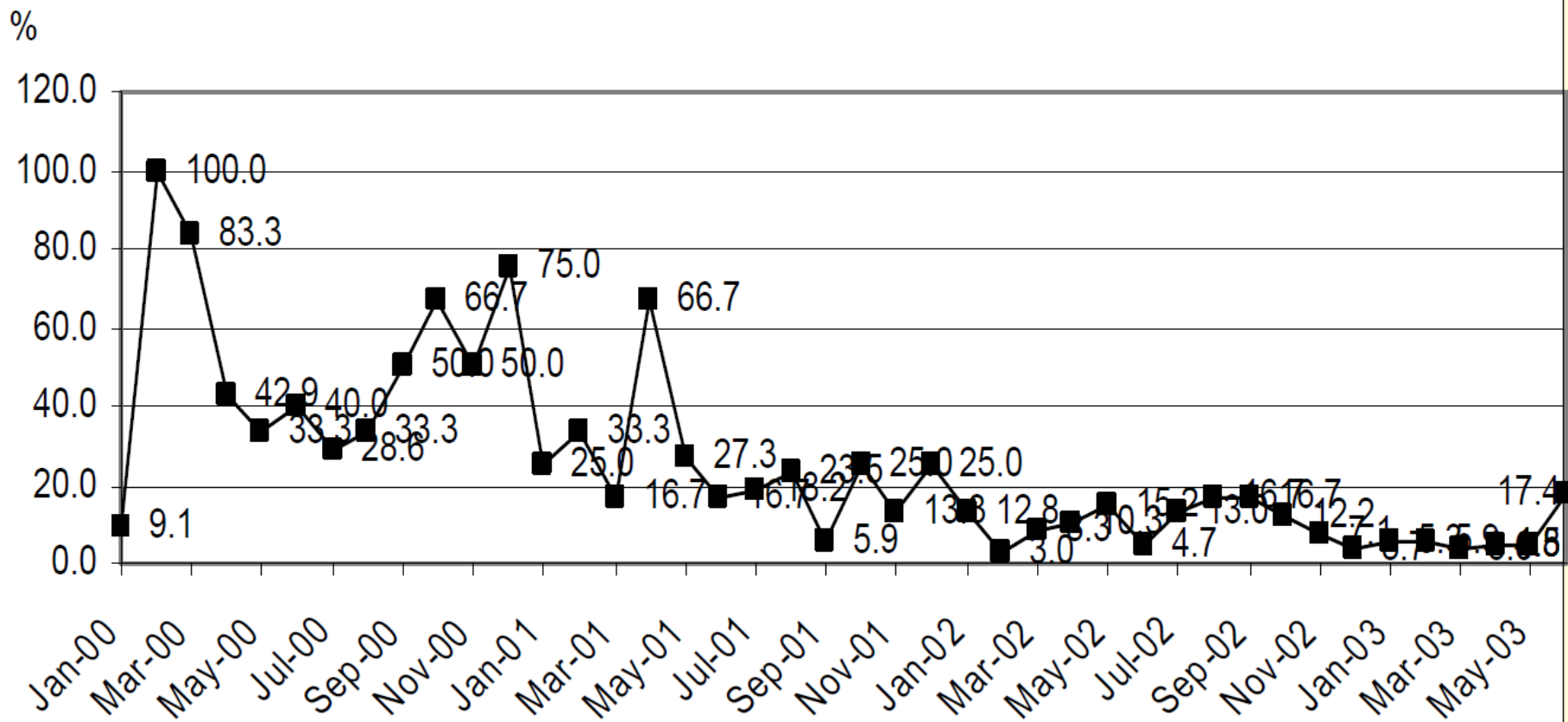
Case example: Russia - Organization of Tula Oblast Intentional Spread Collaborative after Demonstration Collaborative

Arrows show expansion
from initial sites to
neighboring spread sites



Tver, Russia Case Fatality Outcomes during the Collaborative

Case Fatality for Infants with Respiratory Disorders in the First Week of Life



What do we know/3?

A dynamic of continuous improvement is needed to maintain/increase the performance of the health systems in a changing environment.

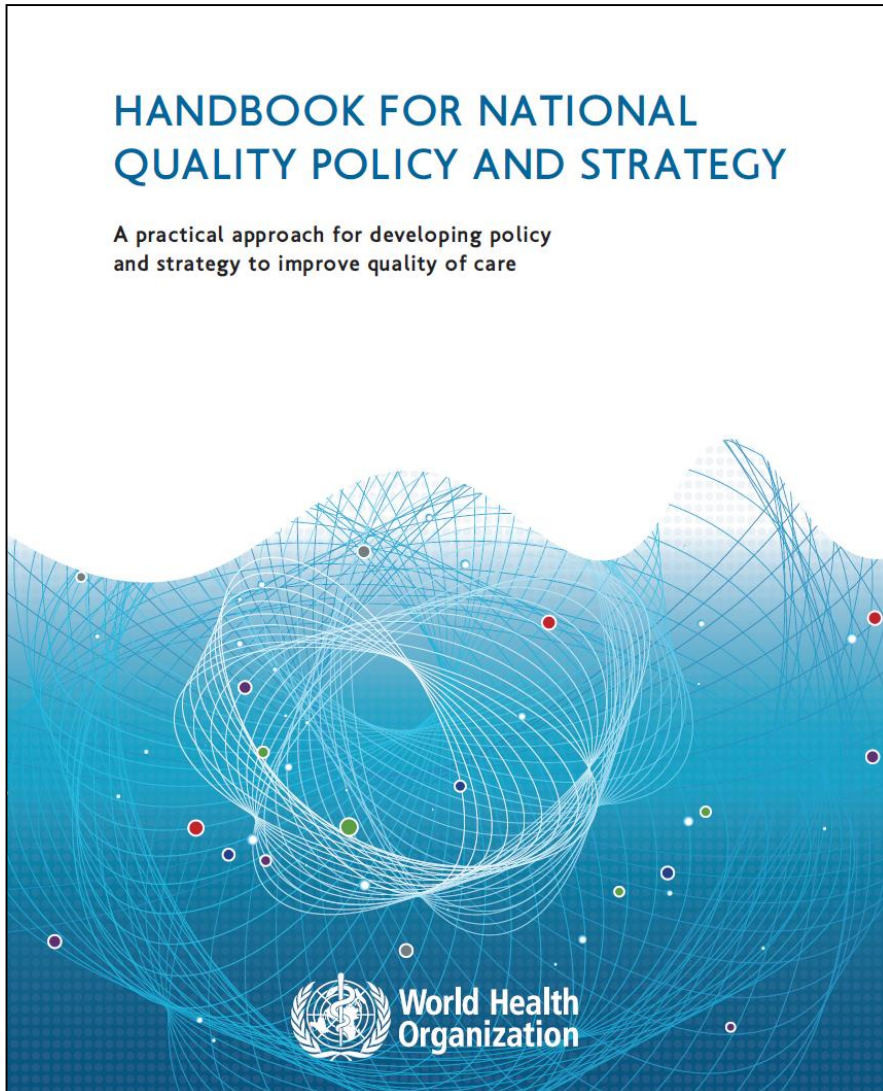
“Institutionalize QI in the health system”

Factors affecting institutionalization of CQI

- **Political will and leadership at all levels of the health system**
- **National QI policy and guideline/plan to achieve priority health goals**
- **Champions for effective advocacy from passionate & committed staff**
- **A structure dedicated to quality**
- **A combination of improvement methods and interventions**
- **Scale-up models for fast replication of best practices and learning**
- **Documentation and communication system (learning system)**
- **Feedback loops between policy and implementation levels**

Very few publications on institutionalization but more national QI policies available

How to develop a national QI policy & strategy



- **Led by Ministry of Health**
- **Multisectoral and multidisciplinary membership**
- **Policy and strategy informed by implementation, not a linear process**
- **Not a unique process, but many common areas of the content**
- **Starts with stakeholders engagement**



Key Messages

- **Design a comprehensive approach to quality**
- **Build scalability of improvements from the beginning**
- **Institutionalize QI to build a Quality health system**

How Can this information benefit the Cambodia Health System?



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