Rapid Scale-up over Seven Years: *Lessons from Ghana*

IHI National Forum, Orlando, FL
Learning Lab #27
December 6, 2015
1. Highlight **key challenges and opportunities** when planning and executing large-scale QI programs

2. Share **strategies to mitigate and manage risks** in large-scale programs

3. Provide **practical guidance** for those designing, planning and executing large-scale QI programs
Outline

- Why?
  - Why is scale up so important and yet so difficult?

- What?
  - What *is Project Fives Alive!*?

- How?
  - How did *Project Fives Alive!* achieve national scale?

- Wrap up
Disclosures & Conflicts of Interest

- None declared
What is Scale-up?

- Definitions abound...

- Outcome much clearer:
  - The “thing” being scaled up is evidence-based and reaches the majority of the targeted population within a specified area
Why is scale up in health care so important?
First, do no harm
Central Line Associated Blood Stream Infections

Health care can cause harm

- In the USA
  - 8\textsuperscript{th} leading cause of death
  - 14,000 cases in 2009
  - 14–40\% attributable mortality
  - Increases hospital stay by up to 3 weeks
  - $2\ billion in excess healthcare costs since 2001
- Preventable

Health care providers are obliged to prevent harm

1. Appropriate hand hygiene
2. Aseptic skin preparation
3. Full barrier precautions
4. Avoid femoral site
5. Remove unnecessary lines

Source: Latif A et al, 2015
First, do no harm
CLABSI for 121 ICUs from 73 hospitals in Michigan

Source: Pronovost PJ et al, 2015
Second, do good
Postpartum Hemorrhage in Niger and Mali

Source: Boucar M et al, 2014
Second, do good
Postpartum Hemorrhage Globally

Source: United Nations 2010
Why is scale up in health care so difficult?
Health care lags behind other high-reliability sectors in performance...

- Health care provider as hero; resistance to standardization
- Professional hierarchies & insufficient teamwork
- Insufficient systems thinking
- Errors attributed to individuals not systems
- Tolerance of status quo, esp. certain types of harm
- Patient as “other”
...which is compounded in low- and middle-income countries by

- Limited resources
  - Insufficient human and material resources
  - Financial barriers to access
  - Geographical barriers to access

- Weak health service delivery systems

- Poor governance and accountability

- Insufficient engagement of local implementers and “beneficiaries” in scale-up process

- Poor application of proven diffusion techniques

Source: Hanson K et al, 2003; Yamey G, 2012
Why is scale up in other industries so much easier?
How are other high-reliability sectors different from health care?

- Better application of diffusion of innovation theories and practices
- Greater appreciation of systems thinking
- Governance and regulatory environment more stringent
- Self-interest
- Etc.
Towards more effective approaches to scale up

- Appreciation of the contextual factors that contributed to the effectiveness of the “thing” being scaled up as we move to naïve areas (i.e. scale up is rarely a “cut and paste” job)

- Recognizing that health care is a complex adaptive system and working within that framework

- Broad and active engagement of local implementers and stakeholders

- Fundamental role of leadership to provide direction, set the appropriate tone, and relieve bottlenecks

- Relentless focus on execution

- Importance of data for monitoring, evaluation, learning and adaptation

Introduction to Project Fives Alive!:

Nationwide QI initiative in Ghana to Reduce Child Mortality
Aim:

To assist and accelerate Ghana’s efforts to achieve Millennium Development Goal 4 (66% reduction in Under-5 mortality to 40/1000 live births by 2015) through the application of quality improvement methods

Funded by the Bill & Melinda Gates Foundation
Ghana’s MCH profile 2010

Change package of process improvements that had been shown to be effective in similar contexts
Scale-up and Spread Framework

Build Will

Build QI capacity

Build data support

Locate Will
(align interests, find early adopters, build off existing programs)

Set-up

Develop the Scalable Unit
(find and test implementation ideas – "change-package" – in a scalable unit)

Prototyping

Use "change package" and understand how to achieve success at scale

Scale-up

Spread over broad geographic region and embed into existing system

Spread & Sustain
## Scale Up Design

### Start Small, Scale up Rapidly with Change Package

<table>
<thead>
<tr>
<th>Total Pop’n:</th>
<th>350,000</th>
<th>5 million</th>
<th>11 million</th>
<th>11 million</th>
<th>22 million</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 5 Pop’n:</td>
<td>60,000</td>
<td>500,000</td>
<td>1.7 million</td>
<td>1.7 million</td>
<td>3.3 million</td>
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</table>

<table>
<thead>
<tr>
<th>Date</th>
<th>Wave 1: months</th>
<th>Wave 2: months</th>
<th>Wave 3: months</th>
<th>Wave 1R: months</th>
<th>Wave 4: months</th>
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<tbody>
<tr>
<td>Nov 2007</td>
<td>1 – 8</td>
<td>9 – 22</td>
<td>23 – 63</td>
<td>58 – 89</td>
<td>63 – 89</td>
</tr>
<tr>
<td>Jul 2008</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Sept 2009</td>
<td></td>
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<td>Oct 2009</td>
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<tr>
<td>Aug 2012</td>
<td></td>
<td></td>
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<td>Jan 2013</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<table>
<thead>
<tr>
<th>No of. QI Teams:</th>
<th>30</th>
<th>228</th>
<th>330</th>
<th>430</th>
<th>709</th>
</tr>
</thead>
<tbody>
<tr>
<td># SUB DISTRICTS</td>
<td>25</td>
<td>195</td>
<td>222</td>
<td>265</td>
<td>544</td>
</tr>
</tbody>
</table>

*Referral project launch 41 Referral Teams*
# Results: Wave 1–3

<table>
<thead>
<tr>
<th>INDICATOR</th>
<th>Sept. 2011</th>
<th>May 2013</th>
<th>Sept. 2013</th>
</tr>
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<tbody>
<tr>
<td>Early ANC Care</td>
<td>10% increase</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td>Skilled Delivery</td>
<td>8–16%</td>
<td>20–30%</td>
<td>20–30%</td>
</tr>
<tr>
<td>Post natal Care Day 1–2</td>
<td>Incomplete non routinely reported data</td>
<td>40–70%</td>
<td>46–80%</td>
</tr>
<tr>
<td>Post natal Care Day 6–7</td>
<td>“</td>
<td>20–60%</td>
<td>20–60%</td>
</tr>
<tr>
<td>U5MR – Upper East</td>
<td>No Significant Change</td>
<td>33% Reduction</td>
<td>32%</td>
</tr>
<tr>
<td>U5MR – Upper West</td>
<td>No Significant Change</td>
<td>39% Reduction</td>
<td>36.5%</td>
</tr>
<tr>
<td>U5MR – Northern</td>
<td>No significant Change</td>
<td>No Significant Change</td>
<td>39% Reduction in 12–59 month age group</td>
</tr>
<tr>
<td>Nine NCHS Hosp.</td>
<td>18%* (July 2011)</td>
<td>–</td>
<td>31% reduction * Aug. 2013</td>
</tr>
<tr>
<td>32 NCHS Hosp.</td>
<td>–</td>
<td>–</td>
<td>27% * Aug. 2013</td>
</tr>
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</table>
140 Hospitals as of August 2015 (Wave 4)

- 35% reduction in under-5 mortality
- 54% reduction in post-neonatal infant mortality
- 38% reduction in under-5 malaria case fatality
The Demographic Health Survey of Ghana coincided with the start (2008) and end (2015) of the Project. Current results show:

- Under-5 mortality in Ghana reducing from 80 to 60 per 1,000 live births
- Child mortality (1 – 4 years) reducing from 31 to 19 per 1,000 live births
- Infant mortality reducing from 50 to 41 per 1,000 live births
- Neonatal mortality reducing from 33 to 29 per 1,000 live births
Introduction to Manual:

Lessons Learned from Ghana’s Project Fives Alive!
Aim of the Guide

- This practical guide will serve as a roadmap for those also striving to design and execute improvement initiatives to achieve results at scale—sharing what worked, what challenges exist, and recommendations for success.
How to use the guide

- Divided into 7 sections:
  - Project Design
  - Relationships
  - Leadership
  - Human Resources
  - QI Capability
  - Measurement
  - Communication

- This is a “practical guide” that is designed to be marked up, sit open on your desk (not the shelf) and adapted in your setting.
Project Design

- Adaptive Design
  - Moving from disease-specific focus to systems approach
  - Added care for the mother in addition to the baby
  - Inclusion of community members
  - Modified site visit frequency and Collaborative cycle length

- Form Strong Relationships with Partners
  - Established steering committee
  - “Open Channel” communication between leadership

- Planning for the end of the project
  - Design in an “exit strategy” from the start
  - Sustainability plan to nourish successes
Secure support and cooperation from local elders and leaders

Establish a genuinely consultative process with partners

Align priorities among national health system and partners

Develop improvement capability in partner organizations

Collaborative with other local NGOs and academic institutions
Leadership

- Project management at pace and on time
- Serve as a model for all staff—meet deadlines, work hard, require a high standard of work quality

- Communication
  - Create a culture of “open communication”
  - Formal and informal discussions
  - Respond to needs in a timely way

- Quality Improvement and focus on results
  - The data will tell you how if the changes are you making are leading to improvement
  - Stay informed of the data and speak to it

- Develop your staff into leaders
Human Resources

- Recruit staff based on qualifications. Promote people based on merit.
- Invest in staff development.
  - Formal training, mentoring
- Do not prioritize or appear to prioritize technical roles over staff HR concerns
- An early proactive HR policy is key – PDRs, Scheme of Service, End-of-Service benefits, benefits (health insurance) etc.
- Define the end game from the outset
- Be sensitive to drivers’ concerns – Fueling, tolls, transportation decisions, servicing schedules
- Ensure that all staff members feel fulfilled, and have fun while working
QI Capability

- At scale, think wide and deep capability building – Management, frontline staff,

- Calibrate the appropriate dose of QI knowledge for each level of cadre; IAPDP, ICT, Learning Sessions, Site Visits

- Identify employed staff by partner with natural quality mandate and codesign, co-implement and cofacilitate from day one
Measurement

- Outline Driver Diagram at onset subject to iterations

- Align sensitive measures to primary drivers at Collaborative level and “PDSA” level measures to assess impact of improvement cycles

- Focus team discussions on data generated by team/s
- Promote use of routine data systems supported by data quality improvement actions

- An independent evaluator is an extra layer of credibility
Communication

- Prioritize communication objectives early and make time for dissemination efforts

- Prioritize primary stakeholders – builds trust and credibility

- Standardize regular technical reporting formats
  - Site Visit Change Tracker
  - Regional Technical Report
  - Improvement Collaborative Reports

- Peer reviewed publications presents new level of credibility
Breakout Sessions
Break Out Sessions (120 mins)

Group 1
- Relationships
- Leadership

Group 2
- Human Resources
- QI Capability Building

Group 3
- Measurement
- Dissemination & Communication
Wrap up
References


- *Yamey G.* What are the barriers to scaling up health interventions in low and middle income countries? A qualitative study of academic leaders in implementation science. *Globalization and Health* 2012;8:11