# Evaluation Methods: What do you do with the data you collect? How do you share what you've learned?

Marianne E. McPherson, PhD, MS Senior Director, Institute for Healthcare Improvement August 2, 2022



# Agenda

- Introduction by AIM Data Team
- Presentation led by Dr. McPherson
- Q&A (here and throughout)
- Closing led by AIM Data Team



# **Learning Objectives**

#### Rational Objectives (what we aim to learn / accomplish)

- 1. Understand ways evaluation data can be applied in the context of QI.
- 2. Describe the importance of the dissemination of evaluation findings.
- 3. Identify at least 3 components of an evaluation report.
- 4. Connect some of the dots between this and the 1st January session

#### Experiential objectives (how we hope to feel)

- Energized about incorporating evaluation into our QI work and sharing what we learn!
- Connected to each other and supports in this work



## Welcome and Grounding

Think of a time when you learned something via a report, podcast, article, or other "dissemination" venue.

What stands out about that learning experience? Consider the content as well as the mechanism or format.

Invitation to share your feedback in the chat along with where you're calling in from



#### **IHI Mission**

To improve health and health care worldwide

#### **IHI Vision**

Everyone has the best care and health possible



#### **What IHI Believes**

That health and health care can and must be better.

There can be no quality without **equity**.

Improvement science and methods drive **results**.

Courage

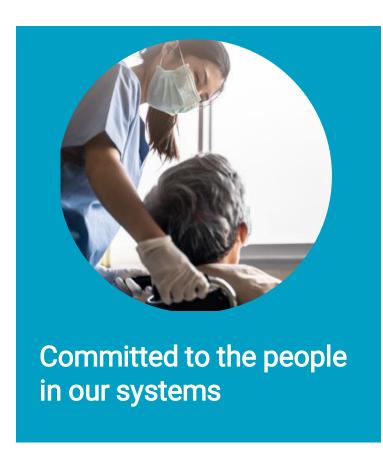
Love

Equity

Trust

### IHI's three areas of priority









# **How IHI Works** Inspire Change Educate Demonstrate My work's focus, today's focus Results Innovate



## Would it help your work if you...

M

 Could confidently say that the measurement and data collection in your project was meaningfully helping to answer: "Whose lives are getting better because we are here [doing this work]"?



Had a clear set of questions guiding your work and learning?
 Questions that were broad enough to follow where the learning takes you and focused enough that you didn't feel like you had to solve world peace to answer



 Shared what you were learning in your work – about the process and/or the content and results – with others in AIM, with partners and customers, and with the field?



them?

And if you knew and could build upon and share what others were learning?

# Refresher: Evaluation & Learning Questions

And other keys to evaluation in QI



### A model for learning and change

Model for Improvement is a model or framework in the broader context of the sciences of improvement

It was developed by Associates in Process Improvement (API)

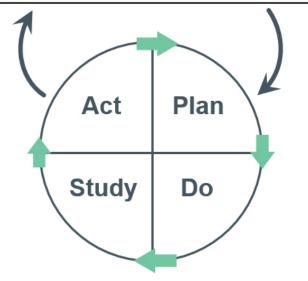
It's composed of 3 questions and a learning cycle

#### Model for Improvement

What are we trying to accomplish?

How will we know that a change is an improvement?

What change can we make that will result in improvement?





# How do we know if our QI project, itself, is bringing about improvement? (aka evaluation of QI)

How might we...

- Track progress towards medium- and long-term goals
- Learn what it takes to bring about improvement
  - Overall and across different contextual factors
- Make informed, evidence-based adjustments during an initiative to maximize improvement



# **Keys to a QI evaluation plan: Learning Questions + 5 core components**

- 0. Evaluation/Learning Questions
- 1. Aim
- 2. Content Theory
- 3. Execution Theory
- 4. Measures
- 5. Dissemination Plan



For more on the 5 core components: Cohen S, Reid A. What Does It Take to Bring about Improvement? Five Core Components for Learning from QI Programs. IHI Blog. Published September 11, 2014.

### **#0. Learning Questions**

A brief set (approximately 3-5 questions, ideally) of questions that are:

- Meaningful to those most affected by the work, to those implementing the work (IHI, our partners), and to those funding the work. They guide what is most important to know
- Balance between being specific enough to reflect the work of project, and broad/flexible enough to allow for learning (and what emerges) as work develops

Ideally, developed during project design, refined at project launch, and revisited at key milestones in the project

Provide connective tissue across the 5 core components of your work.



#### **#1. Aim Statement**

How much, by when, for whom?

An aim statement describes what we expect to achieve in the timeframe of the project, taking the form of "how much, by when, for and with whom."



# Aims and Learning Qs: Relationship

Learning questions should align with your aims, **and** they may extend beyond or explore different, important aspects of the work.

#### Such as...

Uncover of the elements behind achieving an aim: How do we do it? What does it take? What facilitates / impedes it?

• If a project aims to: "Support teams to make progress on their clinical and strategic equity projects by March 2022," then a learning question might be... What types of support are most valuable to teams? What is common across many teams and what needs to be customized based on teams' context, focus of work, or readiness? Whose lives got better in the communities where teams are working?

Get specific about a particular aspect of the content or execution theory that is of particular interest or importance. Example:

• What are we learning from this initiative that can support scale up of this model to a much larger network of health care organizations?

Focus on an aspect of the experience of the work.

In what ways did our implementation/facilitation of the initiative incorporate equity at multiple levels? Where did teams experience inequitable impacts, and how might we learn from those?



## #2. Content Theory (The What)

What changes will teams make that will result in improved outcomes?

Content theory describes the processes or behaviors that, if adopted, we predict will improve outcomes. The prediction should be supported with a brief rationale. A driver diagram is one visualization of this shared theory, depicting areas in the system that improvement teams can modify to drive improvement.



## #3. Execution Theory (The How)

What will the improvement initiative do that will lead teams to adopt process changes?

Execution theory is defined as the rationale for how the experience provided by the improvement initiative, the teaching and other activities delivered, and the learning accomplished leads to improvement in the process or outcome measures



#### Measurement Plan

#### How will we know that a change is an improvement?

A measurement plan outlines what data we will collect, how (and when) it will be collected and how (and when) it will be analyzed.

In January, we talked a lot about data and measurement, both qualitative and quantitative, as well as equitable measurement



#### **Dissemination Plan**

#### How will we spread what we are learning?

It's essential to the work to summarize what was done, where it was done, what impact it had and how it was achieved. With these outputs, our partners, and others are better informed in how to spread the work in their settings. The Dissemination Core Component is focused on developing a plan to increase the chances that learning from your project can be shared widely.



Exhibit A. Core Components that Enable Demonstrable Results and Shared Learning.

| Core Component                     | Output                            | Core Component Details   | Alignment with MFI  |
|------------------------------------|-----------------------------------|--|---|
| 1. Goals                           | Aim statement                     | <ul> <li>State what we expect to achieve in the timeframe of the project. This should take the form of "how much, by when."</li> <li>Predict what progress is expected over time (e.g. monthly, quarterly) in order to regularly assess tracking toward goals.</li> </ul>  | What are we trying to accomplish?   |
| 2. Content Theory                  | Driver diagram;<br>Change package | <ul> <li>Description of new processes or behaviors that organizations, teams,<br/>and individuals will use to improve outcomes.</li> </ul>   | What changes will<br>we make that will  |
| 3. Execution Theory                | Logic model                       | <ul> <li>What will the improvement initiative do that will lead teams to adopt<br/>the process changes?</li> </ul>   | result in<br>improvement?   |
| 4. Results and<br>Learning         | Measurement<br>plan               | <ul> <li>What data will we collect (quantitative and qualitative)?</li> <li>How will we collect data?</li> <li>By what methods will we assess progress toward goals?</li> <li>How will we use these results to improve in real-time?</li> </ul>  | How will we know<br>that a change is an<br>improvement?                       |
| 5. Publishing and<br>Communication | Dissemination<br>plan             | <ul> <li>What results or stories from this work should be shared?</li> <li>Who is the target audience (internal and external)?</li> <li>What communication outputs will be produced?</li> <li>What resources are needed/can be allocated for publication?</li> <li>When do we plan to start and complete these outputs?</li> </ul> | (Not aligned) How are we sharing results and learning to inform the QI field? |



#### **Your Turn**

As you consider your current AIM work, reflect on what might be important to share related to your learning questions & core components (see worksheet)

| Core Component                                      | Status / Link to document / Notes about this component | What is important to share? |
|---|--|-----------------------------|
| Aim   |  |                             |
| Content Theory (e.g.,<br>Driver Diagram)            |  |                             |
| Execution Theory (e.g., logic model)                |  |                             |
| Measures (see below, organizing measures worksheet) |  |                             |
| Dissemination Plan                                  |  |                             |

# We have some data...

Now what?

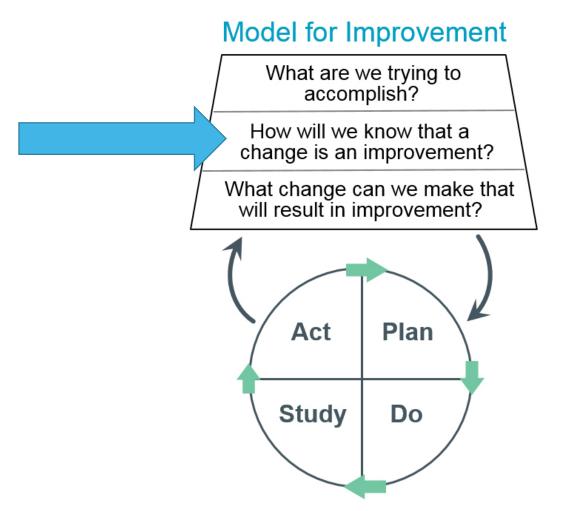


### QI Measurement Considerations Overall and in the context of equitable measurement

- No quality without equity as an approach and within measurement
- What is the family of measures that will help us understand our system over time? And whether we are achieving equity within that system over time?



# A model for learning and change



What was the last thing you measured?



The Model for Improvement was developed by Associates in Process Improvement. [Source: Langley GL, Moen R, Nolan KM, Nolan TW, Norman CL, Provost LP. The Improvement Guide: A Practical Approach to Enhancing Organizational Performance (2nd edition). San Francisco: Jossey-Bass Publishers; 2009.]

# How do we know that a change is an improvement?



Improvement is not just about measurement



However, without measurement you won't know...

"have we made a difference?"

"is this change making a positive impact?"

"have we met the aim of our project?"

"what is the best next action to take?



You need a balanced set of measures, linked to the team aim, to determine if the process has improved, stayed the same or got worse



#### Reminders about data

#### All data & methods

- Purpose: Deep understanding
- **Power** dynamics & **context** of the data collection, analysis, reporting
- **PDSA** thinking: Learn, plan, practice, improve... repeat!

#### Specific to qualitative

- Avoid quantifying the qualitative
- Open up the question
- Considerations for quality in qualitative inquiry







Qualitative Inquiry in Evaluation: From Theory to Practice, Goodyear, et al., 2014 Used with permission from Leslie Goodyear.

# Take-home tips on measurement: planning, learning, sharing

 Be clear on the type of measure (e.g., experience, learning, process and outcome measures) and data (e.g., qual / quant)



#### The Kirkpatrick Model, Types of Measures to Consider

#### **Kirkpatrick Level**

#### 1. Experience

(Did the participants have an excellent experience?)

#### 2. Learning

(Did the participants learn improvement methods?)

#### 3. Process/Behavior

(Did the participants modify their behavior or processes?)

2011;8(Spring). Accessed March 27, 2012. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3070232/

#### 4. Outcomes

(Did the organization improve its performance (via outcome measures))?



References: Kirkpatrick, J., and W. Kirkpatrick. The Kirkpatrick Four Levels: A Fresh Look After 50 Years, 1959-2009. April 2009. Available at <a href="http://www.managesmarter.com/managesmarter/images/pdfs/trg\_20090417\_kirkpatrickwhitepaper.pdf">http://www.managesmarter.com/managesmarter/images/pdfs/trg\_20090417\_kirkpatrickwhitepaper.pdf</a>
Rouse D (Nick). Employing Kirkpatrick's Evaluation Framework to Determine the Effectiveness of Health Information Management Courses and Programs. *Perspectives in Health Information Management / AHIMA, American Health Information Management Association*.

### Qualitative versus Quantitative Data

|  | QuaLitative  | QuaNTitative                                     |  |  |
|--|--|--|--|--|
| Data   | Non-numeric, Things we cannot measure or count: love, gaining maturity, mutual respect; experiences, feelings, perceptions, beliefs, insight | <b>Numeric</b> : Things we can measure and count |  |  |
| Data<br>provide  | Description  | Measurement                                      |  |  |
| Learn<br>About   | Meaning, Experience, Context, Culture/Climate  | Trends, Magnitude, Amount                        |  |  |
| Goal   | Depth  | Generalizability                                 |  |  |
| Slide adapted from Jane Taylor and Donna Luff ← Truth? Bias? Subjectivity? → |  |  |  |  |

# Take-home tips on measurement: planning, learning, sharing

- Be clear on the type of measure (e.g., experience, learning, process and outcome measures) and data (e.g., qual / quant)
- 2. Develop clear operational definitions for each measure (January session!)
- 3. Engage in data & measurement work (all phases) WITH those most affected by the work
- 4. Decide what data you will collect and how you will collect it; and revisit as you learn (too much? Valuable to participants & to project?)

# Take-home tips on measurement: planning, learning, sharing

- 5. Summarize what you are learning from your data regularly (e.g., quarterly)
- 6. Use your data to inform both course corrections and summative learning
- 7. Revisit the guiding questions and key features of equitable measurement reflect on and share related to those



# Guiding questions for meaningful measurement

Whose lives will get better because we are here? (and how do we know?)

Who is not thriving, and how can we partner to change that? (and how will we know if things are changing?)

How can we have measurement that will support us to understand the problem but not get stuck in either: "admiring" the problem, or analysis paralysis?

# Some key features. Meaningful measurement overall and especially considering equity...

... includes the ability to see the system from multiple perspectives and levels

- Individual, organizational
- Overall and stratified

... provides a sense of the "what" (magnitude, big picture) and the "why" (stories, context, bring the big picture to life)

... is meaningful to those from whom the data are collected (e.g., patients) as well as to those collecting and reporting

... is feasible within / connects to other work, other initiatives

...can itself help advance equity

### Your Turn, Reflection

As you reflect on the data you have collected, what stands out as key areas of learning that you might share?





Photo: MEM

# Dissemination & Sharing

How will we share what we've learned?



# "If it's worth doing, it's worth sharing." -Jo Ann Endo, IHI



# What are the ways you currently share your work?

- What do you like and find helpful?
- Where do you experience challenges (either in the preparation of dissemination products and/or the response you receive)?

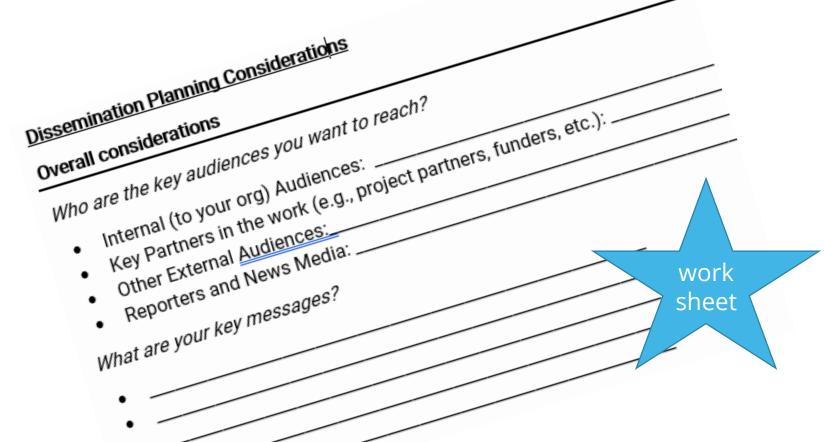


## **Dissemination and Sharing Tips**

- Design sharing & dissemination from the start
- Who's your audience?
- Get specific on the "how": Resources (people, time...), associated timeline
- Story spotting
- Regularly Reflect



# Overall considerations for dissemination & sharing





## Who your key audiences?

Potential audience categories...

Internal (to your org)

Key partners in the work (e.g., project partners, funders, etc.):

Other external audiences

Reporters, news media:



## What are your key messages?

- Remember to revisit your aim and learning questions
- What are the data telling you?
- A few key messages can be tailored / expanded for key audiences and in specific products



## Connecting the audiences and key messages

Identify why each audience segment you've identified will be interested in the work and find it relevant

Consider the key messages overall as well as specific elements of your data (including quantitative and qualitative)



# Planning for dissemination & sharing

#### Specific Dissemination & Sharing Products

Complete the table below for each of the key dissemination / sharing products. Ideally, your project has a dissemination plan you develop during the design phase and gets updated as you learn.

Dissemination Channels (e.g., website, newsletter, social media, public media, article in a journal/newspaper/magazine, conference)

| Channel / Product | Audience | Focus / Key message | Specific results/learning to<br>share | Timing, Key people responsible |
|-------------------|----------|---------------------|---------------------------------------|--------------------------------|
|                   |          |                     |                                       |                                |
|                   |          |                     |                                       |                                |
|                   |          |                     |                                       | work                           |
|                   |          |                     |                                       | sheet                          |
|                   |          |                     |                                       |                                |



## For each dissemination product, consider...

What it is (specific product / channel)

Audience

Focus / key message

Specific results / learning to share

Project management details (timing, key people responsible, associated budget)



## Double check! Ask yourself...

Are we taking on what is most meaningful?
 Are we taking on too much?

Prioritize! (and re-prioritize!)

Results & learning from this work

Feasible within the project

Has an audience excited to learn



## Double check! Ask yourself...

- Are we taking on too much?
   Prioritize! (and re-prioritize!)
- Are the key messages clear and jargon-free?
   Test with members of your key audience(s)!
- Are those most affected by the work part of the dissemination and sharing (and not in a tokenized way)?
   Sharing in conference presentations and webinars, confirmed level of detail you will share in advance

## **Your Turn**

## Take a few moments to draft thoughts for your project (see worksheet)

## Specific Dissemination & Sharing Products

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|---|-------------------|----------|---------------------|---------------------------------------|--------------------------------|
|   |                   |          |                     |                                       |                                |
|   |                   |          |                     |                                       |                                |
|   |                   |          |                     |                                       |                                |
|   |                   |          |                     |                                       |                                |
|   |                   |          |                     |                                       |                                |



## **Examples from IHI projects**



## From 100 Million Healthier Lives

1. Website w/ core areas of learning (<a href="www.ihi.org/100mlives">www.ihi.org/100mlives</a>),

linked to key resources





## 2. Leadership Insights conversation series (recorded conversations with 9 leaders)

Mental Health and Well-Being in Public Health and Health Care



Improving Population Health





Jemea Dorsey, CEO of the Center for Black Women's Wellness, reflects on her experience with applying the Equity Action Lab model to improve maternal health and advance equity during the COVID-19 pandemic. Hear what else she had to say to IHI Project Director Shannon Welch about the power of listening to women with lived experience to create transformative change.

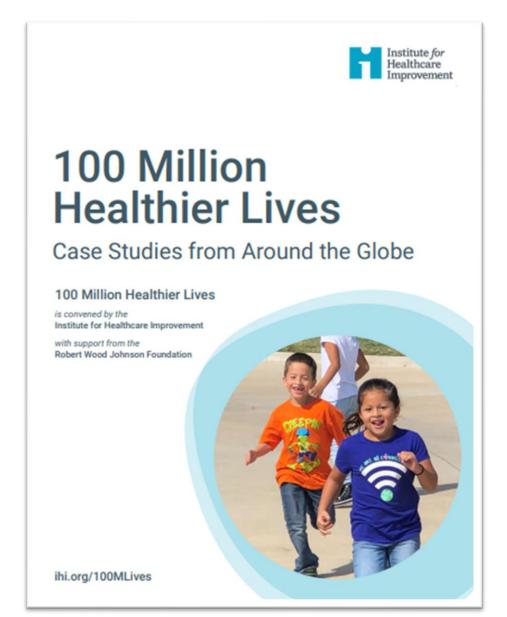
#### Centering Equity and Shifting Power



Hilary Heishman, Senior Program Director at 100MLives funder Robert Wood Johnson Foundation, discusses the imperative for incorporating communities and people with lived experience into every aspect of public health systems. Watch what she had to say to IHI's Marianne McPherson about how 100MLives' advancing equity tools can support marginalized communities to overcome complex population health challenges. Then take IHI's online learning modules on Improving Health Equity and How to Improve with the Model Improvement to learn more.



## 3. Case studies from around the globe







Graphic: Community Solutions

Housing groups from across the US are working to end chronic homelessness in a campaign known as Built for Zero that relies on having real-time data on people living in the streets or shelters.



Photo: Community Platform for Empowerment and Development

The Community Platform for Empowerment and Development's workshops have helped more than 500 women and girls recognize limiting beliefs and invest in themselves.



## 4. Journal articles



Perspective | 🗈 Open Access | 💿 🕦

Well-Being in the Nation: A Living Library of Measures to Drive Multi-Sector Population Health Improvement and Address Social Determinants

SOMAVA SAHA X, BRUCE B. COHEN, JULIA NAGY, MARIANNE E. McPHERSON, ROBERT PHILLIPS

First published: 01 September 2020 | https://doi.org/10.1111/1468-0009.12477 | Citations: 2



EXPERIENCE REPORT | 🗗 Open Access | 💿 🕦

Developing capacity for learning community systems: Experiences from the 100 Million Healthier Lives SCALE Initiative

Tara Carr, Margaret Holly, Kristin Reed, Rumana Rabbani, Caroline Chandler, Brittany Cook, Paul Howard, Marianne McPherson, Becky Henry, Rohit Ramaswamy 

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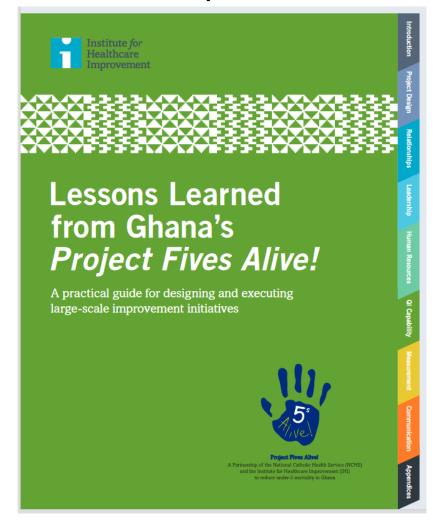
First published: 17 November 2021 | https://doi.org/10.1002/lrh2.10296 | Citations: 1

Funding information: Robert Wood Johnson Foundation, Grant/Award Number: 75582



## From Project Fives Alive!

Core report with clear chapters and lessons



Sodzi-Tettey S, Twum-Danso NAY, Mobisson-Etuk N, Macy LH, Roessner J, Barker PM. Lessons Learned from Ghana's Project Fives Alive! A Practical Guide for Designing and Executing Large-Scale Improvement Initiatives. Cambridge, Massachusetts: Institute for Healthcare Improvement; 2015.

Website:

https://www.ihi.org/resources/Pages/Publications/ ProjectFivesAliveLessonsLearnedGuide.aspx



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"Most entrepreneurs feel their journey is unique... However dissimilar the stories may be in detail, their outline is always the same. Most entrepreneurs travel down the startup path without a roadmap and believe no model or template could apply to their new venture. They are wrong. For the path of a startup is well worn, and well understood. The secret is that no one has written it down."

STEVE BLANK, THE FOUR STEPS TO THE EPIPHANY



- 1. What did Project Fives Alive! "get right"? (Key Success Factors)
- 2. What were the major challenges Project Fives Alive! faced? (Key Challenges)
- 3. What useful lessons does PFA! hold for other large-scale initiatives? (Recommendations)



## Quality Improvement (QI) Capability

#### KEY SUCCESS FACTORS

#### Set ambitious aims and clear expectations, and follow through.

A large-scale Quality Improvement initiative is, for many people, a whole new way of working. A health worker commented that what happened in PFA! was unlike any other project he had been a part of — for example, he didn't expect follow-up site visits to happen as announced at the Learning Sessions, and didn't anticipate the rigorous expectation that planning done to conduct small, rapid-cycle tests of change (PDSAs) at the facilities would actually be adhered to.

Because PFA! leaders communicated clear expectations for the initiative's goals — as well as the approach to adaptive design and problem solving, and the commitment to listening to insights from all sources — Project staff understood these to be critical elements of the Project. When early changes tested by teams yield great results, it inspires confidence in the team's own ability to solve their problems.

When an Improvement Collaborative Network (ICN) sets ambitious aims at the beginning of the journey, it helps to focus the team's attention on identifying changes that lead to measurable improvement. In practice, teams set ambitious collective aims and worked hard to generate significant improvements every 12 to 18 months; QI teams took the aim and schedule seriously, and produced accordingly. If the solution to a problem could not be found, people brainstormed and experimented until they identified a way around the impediment. For facility-based teams appearing to have hit a roadblock, an effective strategy was for a visiting Project Officer to use creativity techniques to help the team brainstorm possible solutions.

#### Form effective QI teams.

Determining the composition of QI teams was a joint decision of the Project and health system managers, with the aim of creating accountability among team members whose managers mandated they attend Learning Sessions. In many instances, the first PDSA test by QI teams after a Learning Session was to debrief management and secure additional support to begin to test and implement changes within their facilities. We encouraged facilities to include on QI teams health workers who were key to the process of care being improved. We recommended that each facility define a core project team that attended the in-person Learning Sessions, as well as an expanded team to engage others in the work upon return to the facilities. The idea of an expanded team was meant to encourage facility-wide adoption of the improvement initiative. It also served to address attrition realities so that there would be enough people at the facility who were knowledgeable about the Project's strategies at any given point in time.

Within the hospital learning network, PFA! prioritized doctors, midwives, nurses, outpatient staff, data officers, laboratory personnel, pharmacists, and others who were part of the care of mothers, children, and newborns for participation on the Project QI teams. At the sub-district level, we prioritized sub-district heads and the health posts, referring to them for team participation. In part, these decisions about QI team composition were made to align with and reinforce existing structures within the health system.

#### **KEY CHALLENGES**

#### Expect early skepticism about QI.

PFA! experienced enthusiastic acceptance of QI as well as some skepticism. In some instances, this skepticism came about once teams started struggling with exactly what using QI in the Project meant operationally for facility teams participating in the work. This may have arisen from the Project not having fully explained the continuous nature of QI and the sharp focus on local data to drive local improvements. The concept of the QI methodology itself being the intervention for the Project — as opposed to more "tangible" interventions like providing an incubator, a new building, etc. — proved initially difficult to grasp. This may also have been compounded by the fact that most health projects operating in Ghana at the time did not include such intense and regular follow-up. It was not until health workers had developed and tested their own change ideas and recorded early wins that their confidence in the QI methodology grew. It was then that it dawned on some teams that all we were promoting were locally owned solutions to well-diagnosed systems and process failures using quality planning tools. In effect, people were solving their own problems using a systematic approach.



#### **F** RECOMMENDATIONS

#### Selecting Intervention Sites

. Develop a clear criteria for selecting sites — for example, baseline performance, commitment of system managers, diversity of sites, resources available to the project to work in challenging terrains, political considerations.

#### Forming QI teams

- . Work closely with management at participating sites to select appropriate team members and to ensure that team members attend Learning Sessions knowing they are accountable to management for the project work. If possible, a management member should attend Learning Sessions.
- In selecting members for the core QI team, focus on selecting health workers that are most key to the process of care being improved.

#### Maximizing the Value of Learning Sessions

- · Prioritize participant learning over a rush to complete the planned Learning Session agenda. Any unfinished business may be addressed during the next site visit.
- For all sessions, adopt the strategy of quick introduction to subject (theory), adequate time for group work, and adequate time for plenary presentations and discussions.
- . Create a fun learning environment (with stimulating energizers, exciting exercises, role plays, marketplace formats, etc.), ensuring that all these are closely tied into the core challenges that teams are trying to improve.







Photo: MEM