

# Quality Improvement for the Global Health Trainee

What to Know Before You Start

Caitlin Visek, MD

Ashti Doobay-Persaud, MD



# Outline

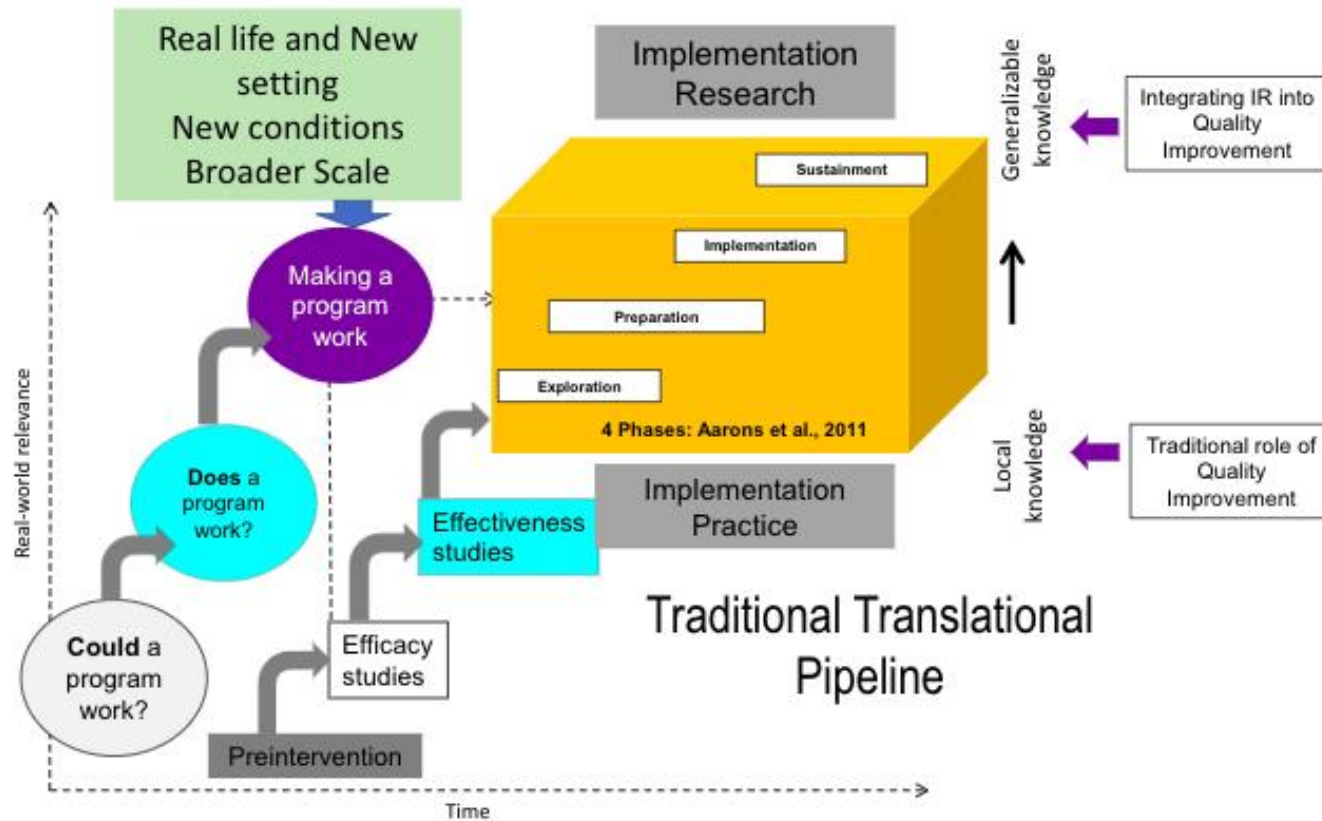
- I. Introduction to quality improvement in global health
- II. Framework for approaching a project
- III. Additional resources

# I. Introduction to quality improvement in global health



# Where does quality improvement sit?

Figure 1



Adapted from Brown et al., *ARPH* 2017

Figure 1. Traditional Translational Pipeline from: "Implementation Science; What is it, how can you use it and how it can help," presentation by Lisa Hirschorn, 2021.

# What is “quality”?

Definition of quality (IOM, Crossing the Quality Chasm)<sup>1</sup>

## Safety

Avoiding injuries to patients from the care that is intended to help them.

## Timeliness

Reducing waits and sometimes harmful delays for both those who receive and those who give care.

## Effectiveness

Providing services based on scientific knowledge to all who could benefit and refraining from providing services to those not likely to benefit.

## Efficiency

Avoiding waste, including waste of equipment, supplies, ideas, and energy.

## Patient-centeredness

Providing care that is respectful of and responsive to individual patient preferences, needs, and values and ensuring that patient values guide all clinical decisions.

## Equity

Providing care that does not vary in quality because of personal characteristics such as gender, ethnicity, geographic location, and socioeconomic status.

# Quality an imperative for health systems improvement

Figure 2

## THE WHO HEALTH SYSTEM FRAMEWORK

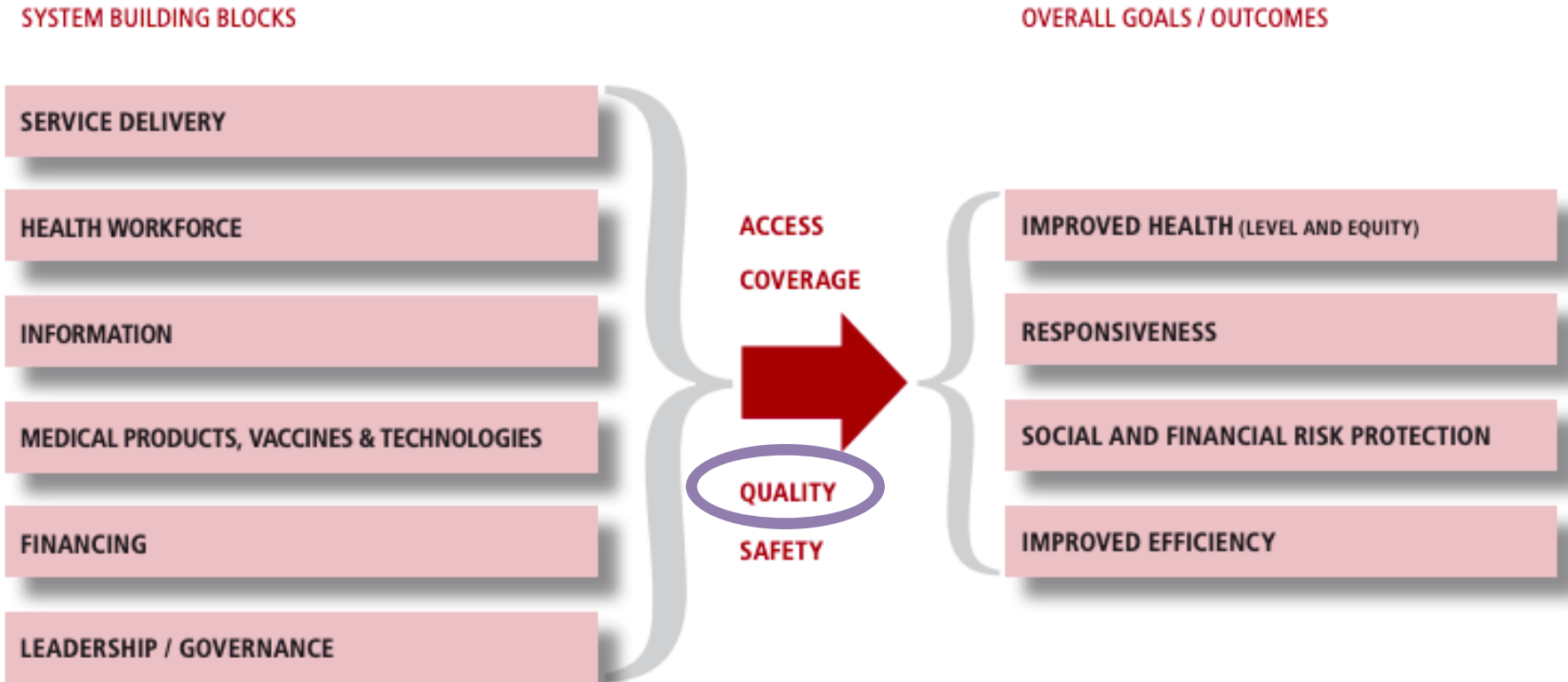


Figure 2. System Building Blocks from: World Health Organization, Everybody's Business: Strengthening Health Systems to Improve Health Outcomes, 2007.

# Quality improvement science

- Quality improvement science: a systematic approach to analyze performance and identify and implement interventions with the goal of performance improvement
- Many QI methodologies exist including Model for Improvement, Lean, Six Sigma
- While the goal is to improve care delivery, there is increasing recognition that QI has the potential to exacerbate existing inequalities by improving care for some groups but not others (Hirschorn et al., *BMJ* 2021)

# Model for Improvement

## Methodology overview

### Planning

- Set the aim
  - What are we trying to accomplish?
- Select measures
  - How will we know if an improvement has been made?
- Develop ideas for change
  - How can we make an improvement?

### Doing

- PDSA cycle

See the Institute for Healthcare Improvement's [website](#) for more detailed review of the Model for Improvement methodology



# Plan-Do-Study-Act (PDSA)

Figure 3

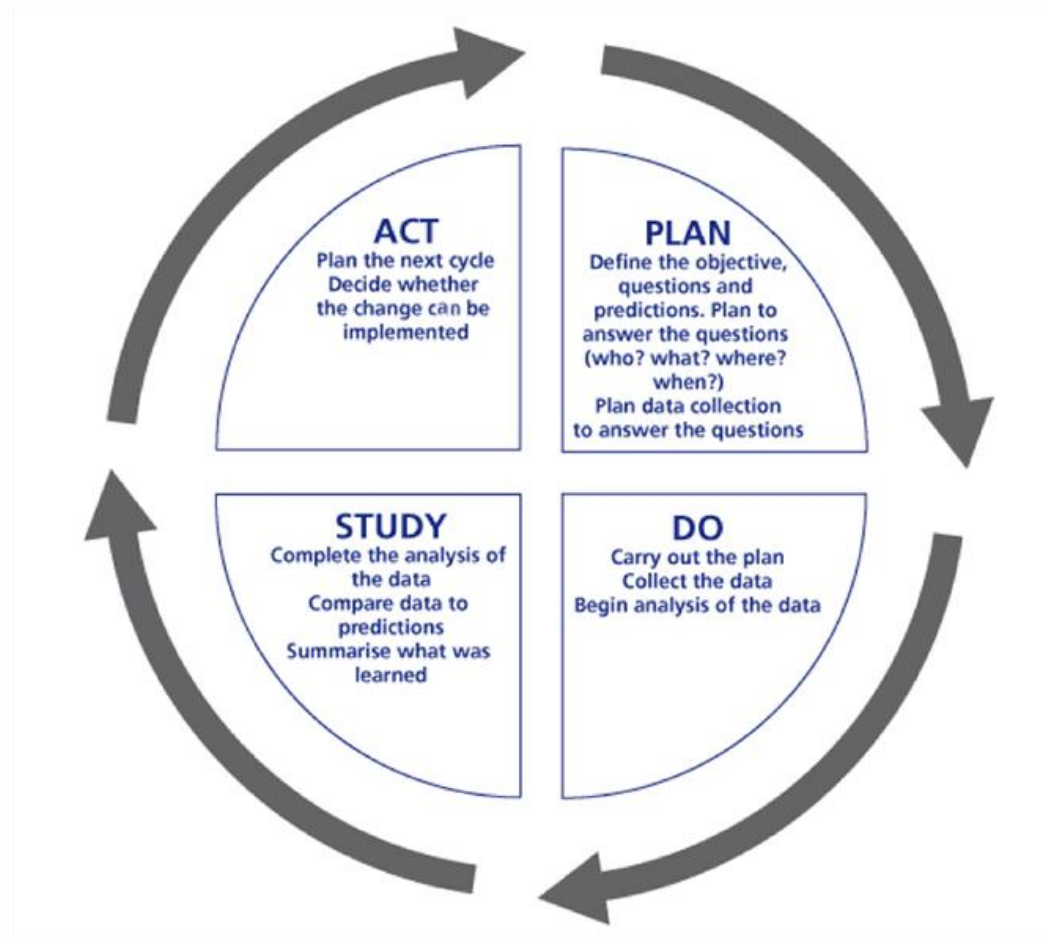


Figure 3. PDSA cycle from: University of Iowa Health Care, 2017, <https://medcom.uiowa.edu/theloop/announcements/a-powerful-tool-for-jedi-and-learn-practitioners-pdsa-model-for-learning-and-improvement>.

## II. Framework



# Framework

1. Identify the problem or gap in care
2. Discuss priorities with stakeholders (health workers, patients, communities)
3. Set the goal
4. Evaluate the initiative from an ethical perspective
5. Collect baseline data
6. Implement and test changes
7. Plan to make improvement sustainable

# 1. Identify the problem or gap in care



- Can be general –what is the issue you want to improve?
- Can use data to identify leading causes of morbidity/mortality to help prioritize possible improvement opportunities
- Staff and patient interviews can also help identify gaps
  - [COPE handbook](#) offers helpful guides for eliciting clinical staff and patient perspectives (EngenderHealth 2003)
- Compare current performance with existing evidence/standards (ideally local / context-appropriate standards)

## 2. Discuss priorities with stakeholders (health workers, patients, communities)

- Understand what aspects of the issue are most important to the host –e.g. timeliness of care, cost, safety, equity
- Align your initiative with host’s goals and practices
- Assemble a team of individuals who are involved in the targeted process and can advise/assist with the improvement initiative



### 3. Set the goal

- This is where you narrow to a specific goal that is SMART (specific, measurable, achievable, realistic, and timely)
- Review the goal with stakeholders to gain buy-in and ensure that the project responsive to local needs



Figure 4 from: The Coaching Tools Company.com, <https://www.thecoachingtoolscompany.com/smart-goals-complete-guide-for-coaches-with-pdf/>

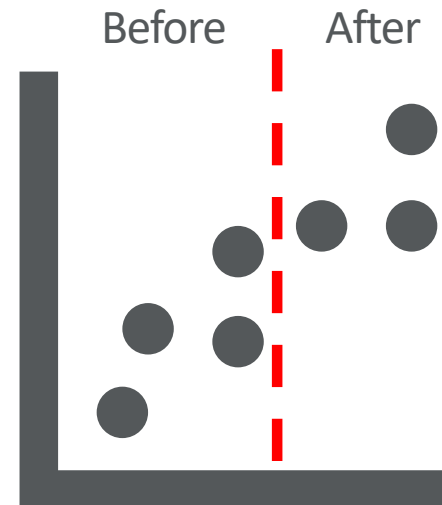
## 4. Evaluate the initiative from an ethical perspective

- Consider the global health principles of service, sustainability, professionalism, and safety (Wilson 2012) when determining whether the engagement is ethical
  - **Service:** goal should be to serve best interests of the patient, remaining respectful of local practices; providers should recognize their own limitations
  - **Sustainability:** partner with local stakeholders and employ education where appropriate; develop means of assessing outcomes
  - **Professionalism:** uphold standards of care and ensure community not negatively impacted by the engagement
  - **Safety:** ensure visiting team members undertake appropriate preparations and receive necessary authorizations prior to travel
- **Equity** is another important consideration. Initiatives which do not explicitly consider equity run the risk of exacerbating existing differences in care quality and outcomes for disadvantaged populations (Hirschorn 2021)

1. Wilson et al , "Principles of Underserved Global Health Volunteerism," *APM Perspectives*, 2012.

## 5. Collect baseline data

- If not easily available, you may need to collect this before starting the intervention
- Baseline data is essential for comparison post-intervention
- May be helpful to create a flowchart of the target process to help identify how things work currently and how they could be improved
- Consider disaggregating data to identify disparities and opportunities to improve equity (Hirschorn 2021)





## 6. Implement and test changes

- Test changes using PDSA cycle or other methodology
- Identify which changes produce beneficial results
- Through multiple cycles, identify intervention(s) that result in improved processes and/or outcomes



Figure 5. PDSA Cycle from: Smartsheet, <https://www.smartsheet.com/content/plan-do-study-act-guide/>.

## 7. Plan to make improvement sustainable

- Identify who will manage the process and guard against backsliding in the future
- In most cases, host should own the end process



### III. Helpful resources





## Additional resources

Please see the Global Health Quality Improvement Educational Resources spreadsheet, which provides an annotated list of existing educational resources for learning and applying QI methodology, including links to online courses, toolkits, and handbooks

# References

# References

1. Institute of Medicine (US) Committee on Quality of Health Care in America. *Crossing the Quality Chasm: A New Health System for the 21st Century*. National Academies Press; 2001; pp. 5–6. Accessed April 1, 2021. <https://www.nap.edu/catalog/10027/crossing-the-quality-chasm-a-new-health-system-for-the>.
2. World Health Organization. *Everybody's Business: Strengthening Health Systems to Improve Health Outcomes*. WHO Document Production Services; 2007. Accessed March 23, 2021. [https://www.who.int/healthsystems/strategy/everybodys\\_business.pdf](https://www.who.int/healthsystems/strategy/everybodys_business.pdf)
3. Scott, K. and Jha, A. Putting Quality on the Global Health Agenda. *New England Journal of Medicine*. 2014; 371(1), 3-5. Accessed March 6, 2021. <https://pubmed.ncbi.nlm.nih.gov/24988552/>
4. Abrampah et al. Quality improvement and emerging global health priorities. *International Journal for Quality in Health Care*. 2018, 30(S1), 5–9, doi: 10.1093/intqhc/mzy0075. Accessed March 6, 2021. [https://academic.oup.com/intqhc/article/30/suppl\\_1/5/4980402](https://academic.oup.com/intqhc/article/30/suppl_1/5/4980402)
5. United Nations. *Transforming Our World: The 2030 Agenda for Sustainable Development*. 2015. Accessed February 27, 2021. <https://sdgs.un.org/2030agenda>.
6. Kruk, M, et al. High-quality health systems in the Sustainable Development Goals era: time for a revolution. *Lancet Glob Health* 2018; 6: e1196–252. Accessed March 6, 2021. [https://www.thelancet.com/journals/langlo/article/PIIS2214-109X\(18\)30386-3/fulltext](https://www.thelancet.com/journals/langlo/article/PIIS2214-109X(18)30386-3/fulltext).
7. "Implementation Science; What is it, how can you use it and how it can help," presentation by Lisa Hirschorn, 2021.
8. Wilson et al. Principles of Underserved Global Health Volunteerism. *APM Perspectives*, 2012. [https://www.amjmed.com/article/S0002-9343\(12\)00072-1/fulltext](https://www.amjmed.com/article/S0002-9343(12)00072-1/fulltext)
9. Hirschorn et al. Aiming beyond equality to reach equity: the promise and challenge of quality improvement. *BMJ* 2021; 374 n939. Accessed October 15, 2021. <https://www.bmj.com/content/374/bmj.n939>
10. Wilson, Merry, and Franz, "Rules of Engagement: The Principles of Underserved Global Health Volunteerism," *Am J Med*. 2012 Jun; 125(6): 612–617. Published online 2012 Apr 11. doi: 10.1016/j.amjmed.2012.01.008
11. Stover K., Holschneider S., and Massoud M.R., "Course: Improving Health Care Quality" *USAID*. Published online 2015 Oct 19. <https://www.globalhealthlearning.org/course/improving-health-care-quality/page/choosing-improvement-priorities?erid=node-151546-60>.