

# Quality Improvement in Healthcare

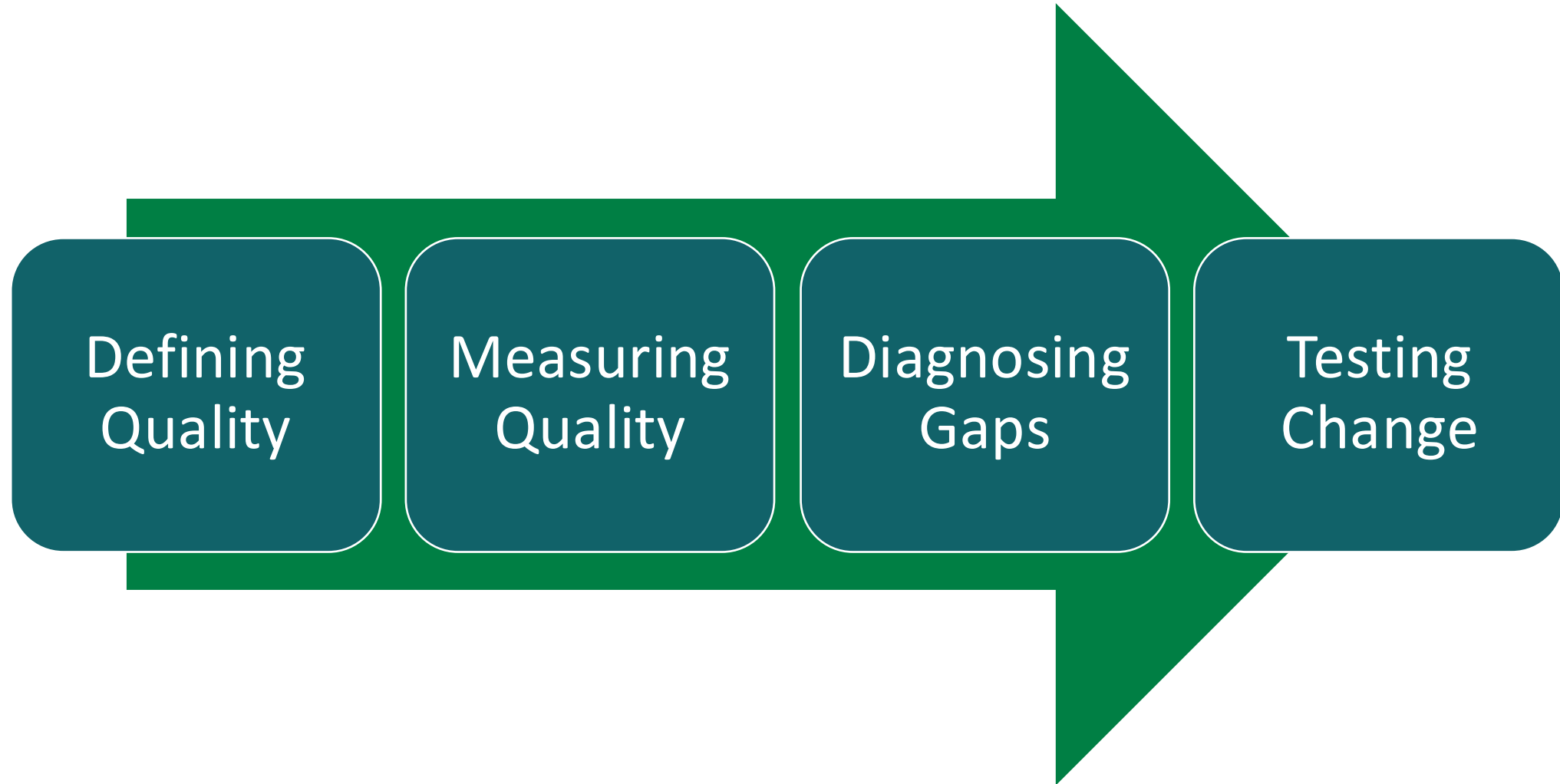
Module 25 Facilitator Answer Slides

Approximate time to complete module: 110 minutes

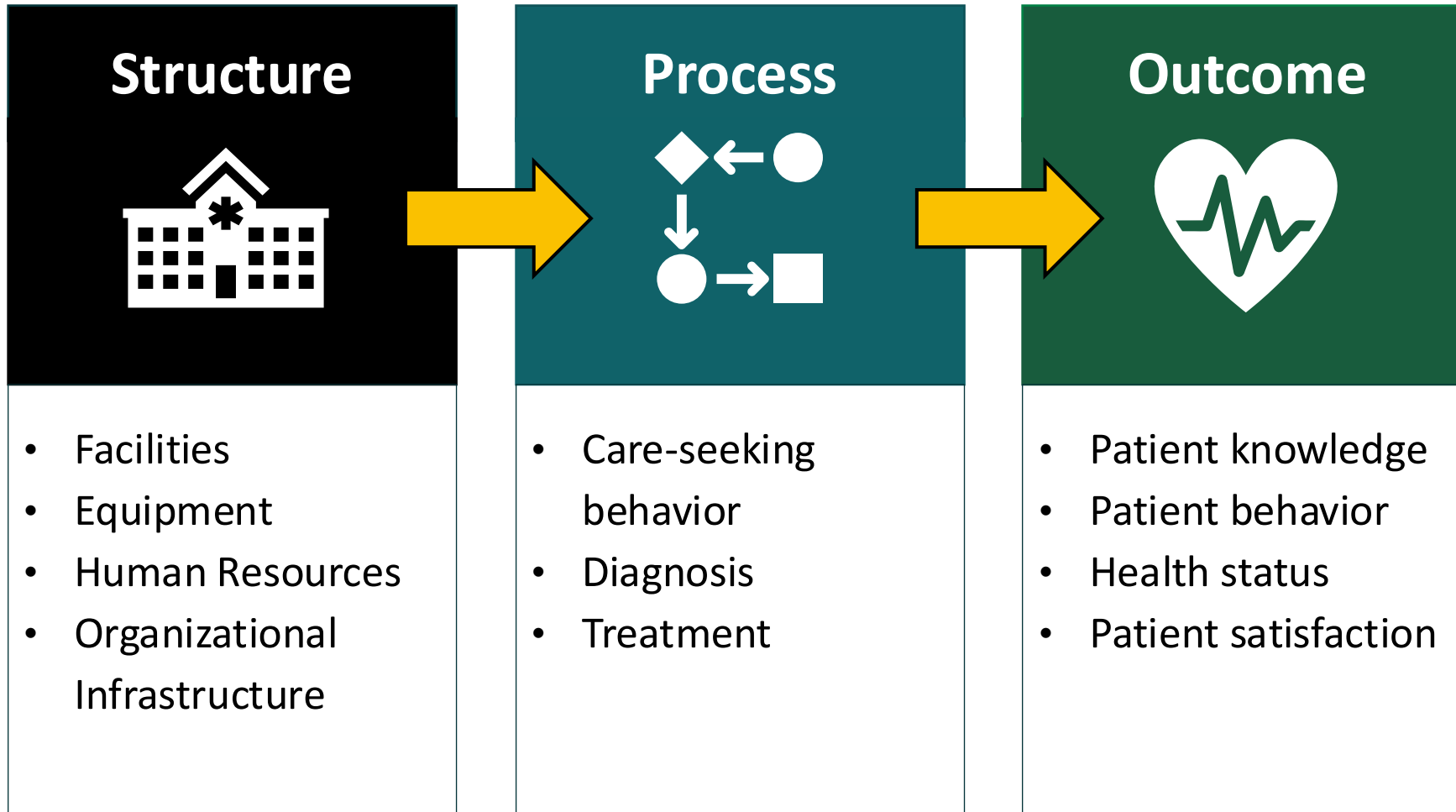


**Strengthening  
Interprofessional  
Education  
for HIV**

# Module Overview

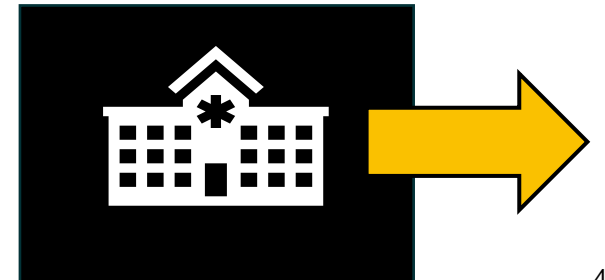


# The Donabedian Model: A Framework for Healthcare Quality



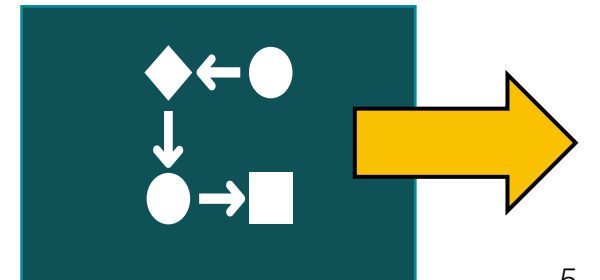
# Structure – Key Questions for Healthcare Quality

- **Facilities:** Are the facilities adequate to provide quality care?
- **Equipment:** Do staff have appropriate equipment (access to diagnostic tests, clinical equipment, medications, etc.)?
- **Human resources:** Is there adequate staffing to provide quality care?
- **Organizational structure:** Does leadership value and support quality assessment and quality improvement?



# Process – Key Questions for Healthcare Quality

- **Care-seeking behavior:** Are patients able to seek and access care?
- **Diagnosis:** Are the correct diagnoses made during clinic visits?
- **Treatment:** Are the correct treatments offered?



# Outcome – Key Questions for Healthcare Quality

- **Patient knowledge:** Are patients educated about their health?
- **Patient behavior:** Are patient behaviors leading to good health?
- **Health Status:** Are medical problems adequately controlled to ensure good health?
- **Patient satisfaction:** Are patients satisfied with their care?



# Sample Quality Indicator

$$\frac{80}{100} = 80\%$$

$$\frac{[\# \text{ of women with HIV still in care following delivery}]}{[\# \text{ of women with HIV and pregnancy seen in clinic}]} = \text{quality indicator (\%)}$$

## Numerator Criteria

# of women with HIV still in care following delivery

- ✓ Mother attended clinic appointment
- ✓ Appointment was with RN or clinician in the 3 months after delivery

## Denominator Criteria

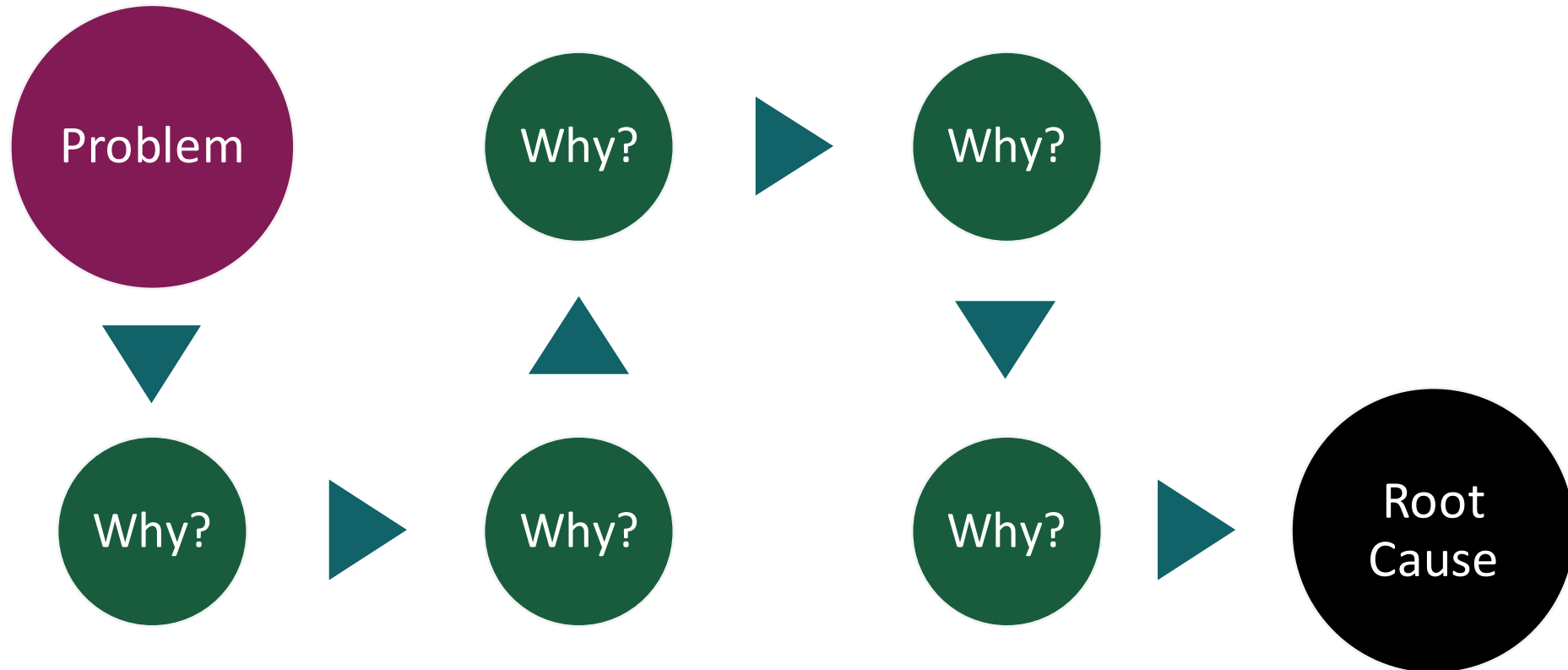
# of women with HIV and pregnancy seen in clinic

- ✓ Mother who gave birth 3-12 months prior to date of quality indicator calculation
- ✓ Mother and child survived childbirth
- ✓ Mother had at least 1 clinic appointment with nurse or clinician during pregnancy (and is not known to have transferred care elsewhere)
- ✓ Mother diagnosed with HIV prior to pregnancy or at any time in the pre-natal period

***Numerator and Denominator must meet all criteria.***

# 5 WHYs Technique

A quality improvement technique to identify the root cause of a problem by asking “Why” multiple times.



# How to Use the 5 WHYs Technique

1. Start with a problem statement.
2. Ask "Why" the problem exists.
3. Continue asking "Why" until a systems problem is identified.

★ On average, it takes five iterations of asking "Why" to find the root cause.

★ Sometimes the first "why" yields multiple responses, each requiring its own "5 Whys" analysis.

# 5 WHYs Problem Statement

**Problem: Low rates of completion of TB preventive therapy (TPT)**

**Question 1: Why do patients on ART not complete TB preventive therapy (TPT)?**

**Reason 1: Their medication supply is interrupted.**

→ The 5 Whys technique is applied to this reason on the next slide.

**Reason 2: They do not want to take medications because they do not feel sick.**

→ Apply the 5 Whys technique.

**Reason 3: It is difficult to come to the clinic for medications and check-ups.**

→ Apply the 5 Whys technique.

# 5 WHYs Example

1. Why do patients on ART not complete TB preventive therapy (TPT)?

→ Because their medication supply is interrupted.

2. Why is their medication supply interrupted?

→ Because patients do not come to pick up their medication refills.

3. Why do patients not come for refills?

→ Because travelling to the clinic interferes with their ability to work.

4. Why does it interfere with their ability to work?

→ Because the clinic only gives a 1-month supply of medications.

5. Why does the clinic only give a 1-month supply of medications?

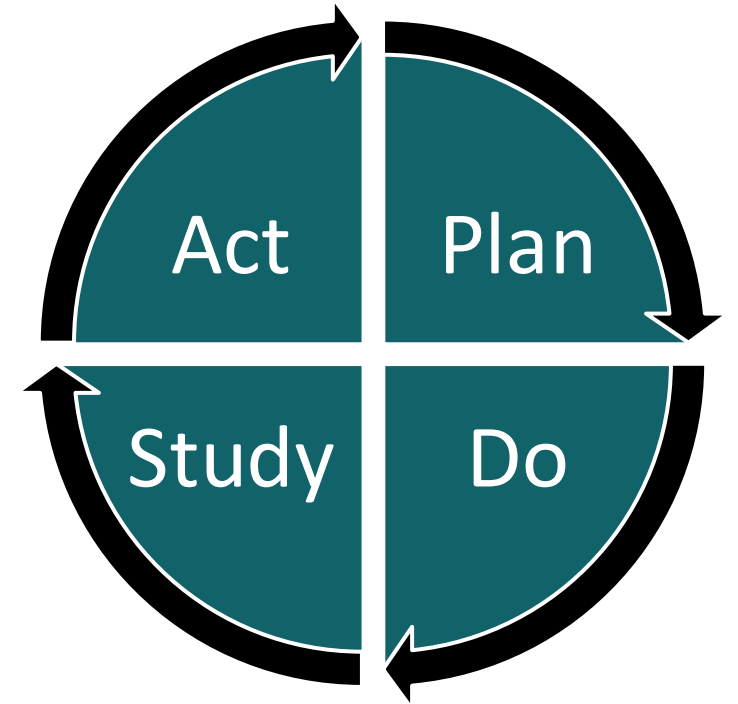
→ The pharmacy's pill bottles only have a 1-month supply of meds.

**Root Cause:** Their medication supply is interrupted due to system constraints in medication packaging and distribution.

# Plan-Do-Study-Act (PDSA) Cycle

**What is it?** A four-step iterative process that is used for quality improvement in healthcare.

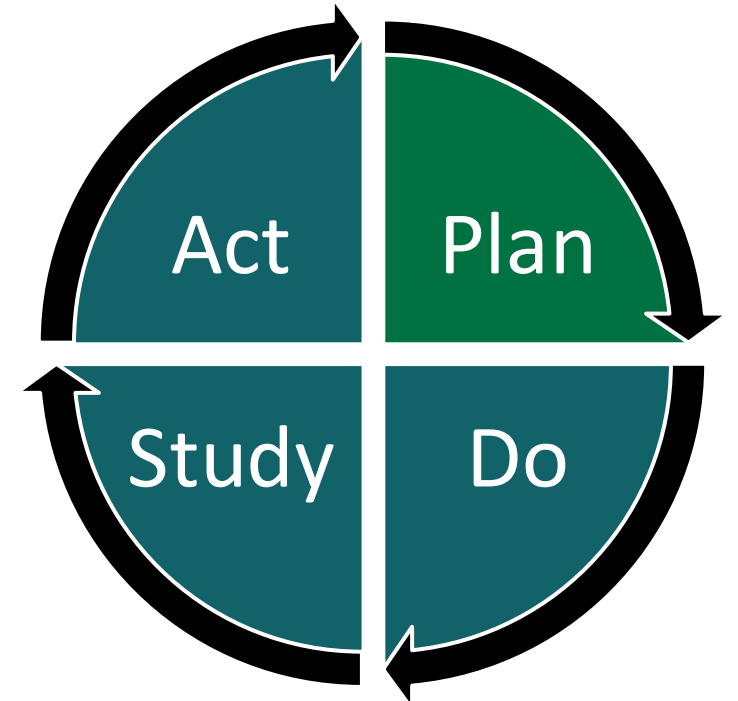
- 1. Plan:** Plan the intervention, including the plan for collecting data.
- 2. Do:** Run the intervention on a small scale.
- 3. Study:** Analyze the results and compare them to your predictions.
- 4. Act:** Based on what you learned from the intervention, make a plan for your next step.



# Plan

**Plan the intervention, including the plan for collecting data.**

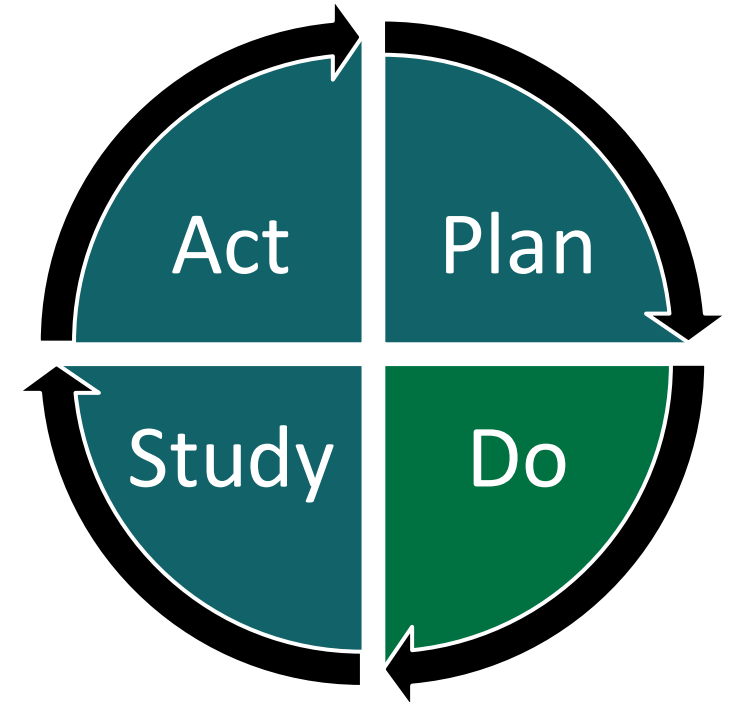
- **State the question** you want to answer and make a prediction about what you think will happen.
- **Develop a plan** to test the change.  
(Who? What? When? Where?)
- **Identify what data** you will need to collect.



# Do

**Run the intervention on a small scale.**

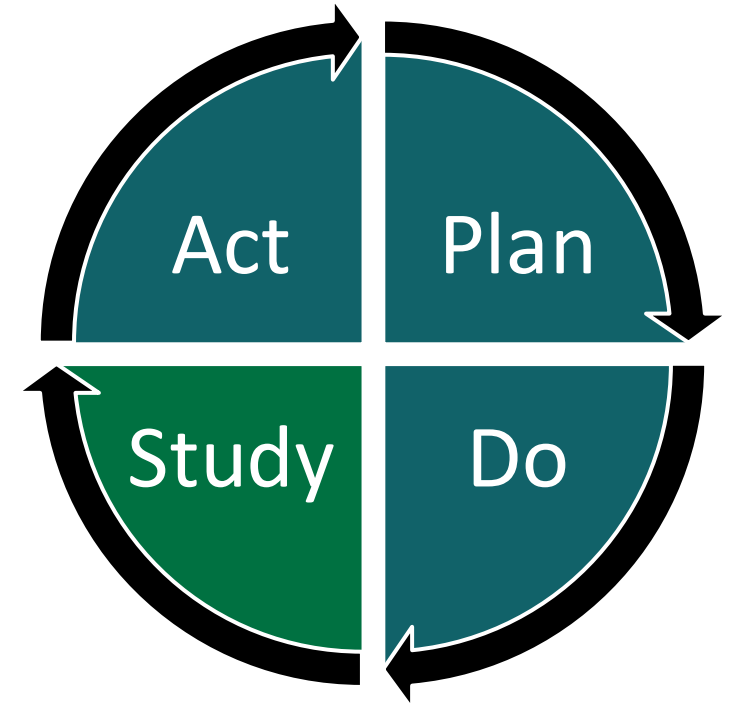
- **Carry out the test.**
- **Document problems** and unexpected observations.
- **Collect and** begin to **analyze** the data.



# Study

Analyze the results and compare them to your predictions.

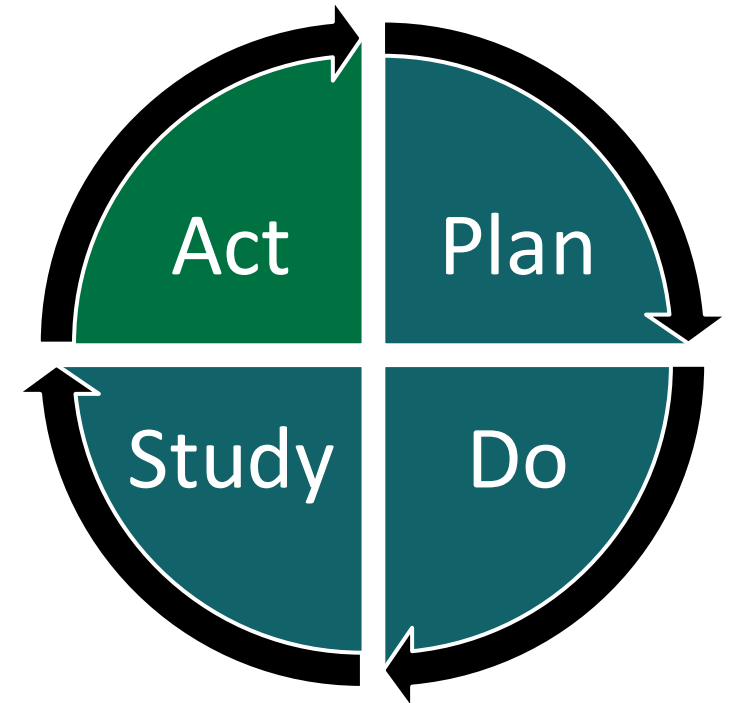
- **Complete**, as a team, if possible, **your analysis** of the data.
- **Compare the data** to your prediction.
- **Summarize and reflect** on what you learned.



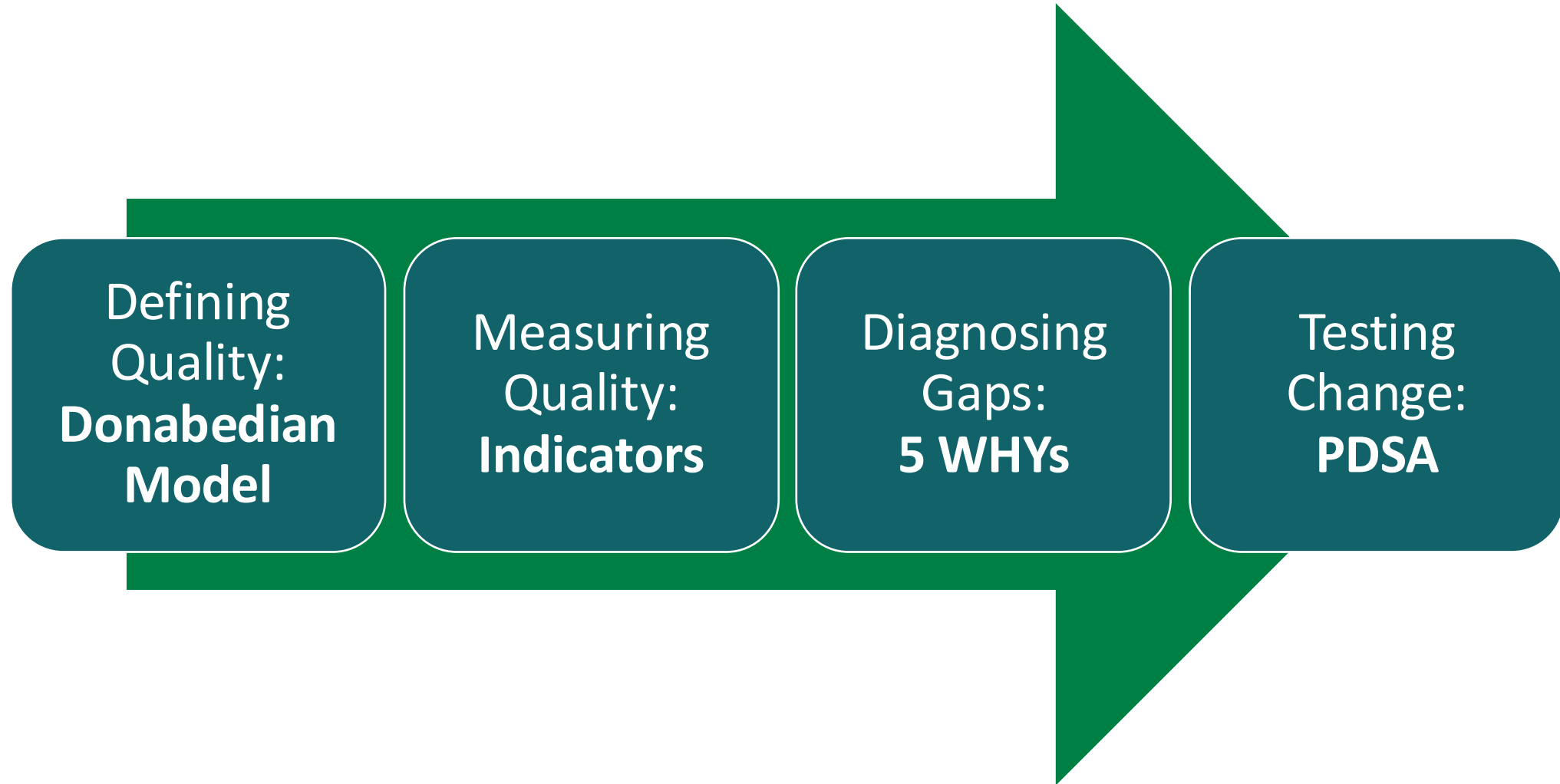
# Act

Based on what you learned from the intervention, make a plan for your next step.

- **Adapt, Adopt, or Abandon**
  - **Adapt** - make modifications and run another test
  - **Adopt** - test the change on a larger scale
  - **Abandon** - don't do another test on this change idea
- Prepare a **plan for the next PDSA.**



# Module Overview Review



# Learning Objectives

1. Describe what comprises “quality” in healthcare delivery
2. Appreciate your role in delivering high-quality healthcare
3. Define the components necessary to measure quality (e.g. quality indicators) and appreciate how quality indicators are used
4. Understand the use of quality indicators in the care for people with HIV
5. Investigate the root cause(s) of a low-performing quality indicator
6. Apply the PDSA framework to improve healthcare quality and study its impact

