This series is made possible with funding from IDPH and the Community Health Assessment and Planning Grant, 2024

November 21, 2024

Quality Improvement Training

IPLAN Training Webinar Series

This session is being recorded.

IPHI Training Team and Peer Presenters

- Laurie Call, Director, Center for Community Capacity Development (CCCD) – Illinois Public Health Institute
- Samantha Lasky, Program Manager CCCD – Illinois Public Health Institute

Training Needs Assessment

Zoom Poll Introductions

What is your level of experience with Quality Improvement in general?

- Very experienced
- Experienced
- Little experience
- No experience

What is your level of experience with Quality Improvement related to your Community Health Improvement Plan (CHIP)?

- Very experienced
- Experienced
- Little experience
- No experience

Today's Training Agenda

- Welcome and Introductions
- Quality Improvement Overview
- Developing the CHIP with QI
- Process Improvement Towards Outcome Attainment
- Q&A
- Training Needs Assessment
- Closing and Evaluation

Learning Objectives

Participants will be able to:

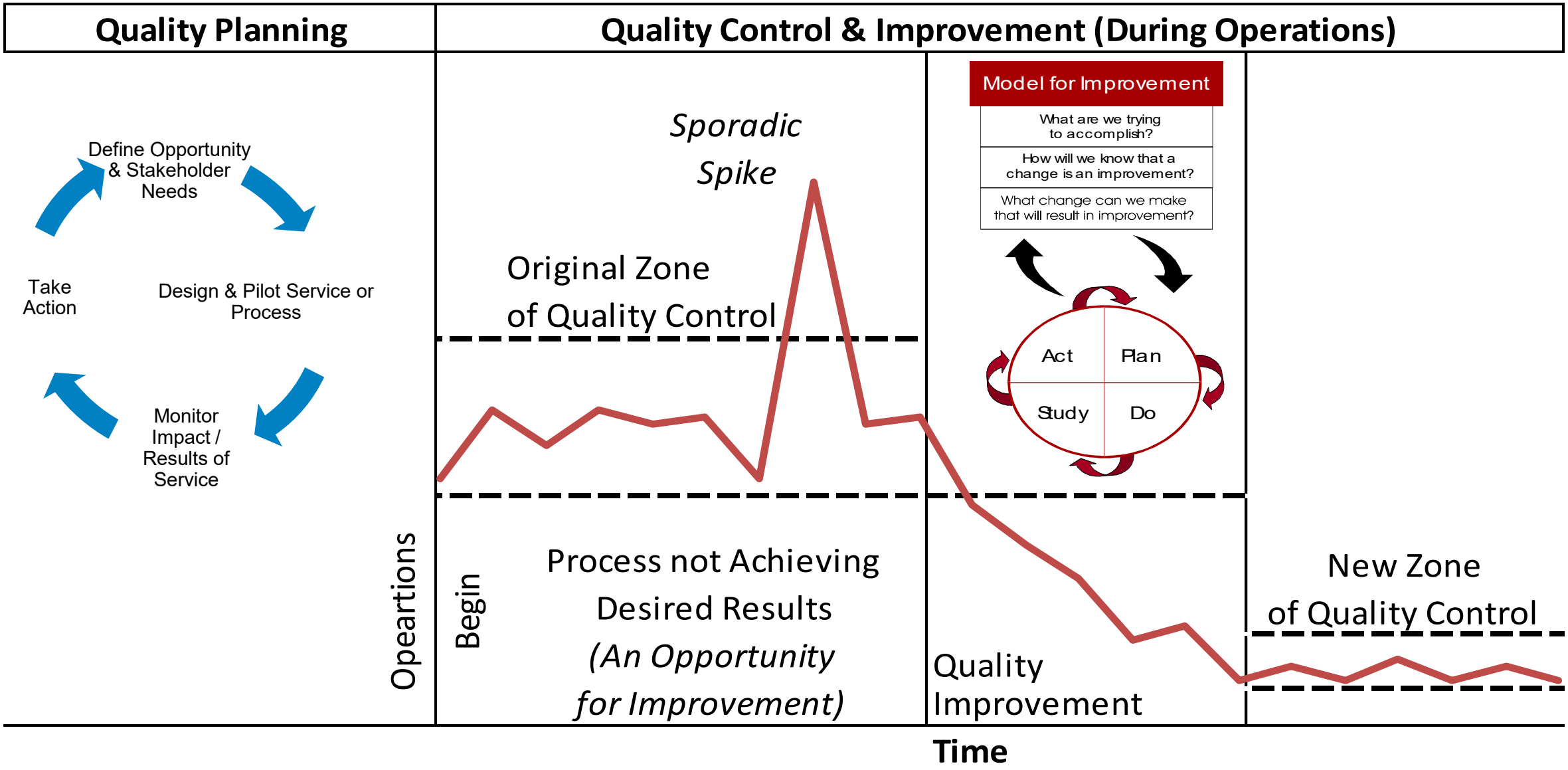
1. Describe how QI can be used to develop and improve the CHIP.
2. Explain the Plan-Do-Study-Act cycle.
3. Apply QI tools to identify root causes and contributing factors to health problems.
4. Select meaningful process measures towards intended outcomes.

Group Agreements

- Actively participate
- Take space/ Make space
- Seek to understand different perspectives.
- Allow facilitator to move conversation along
- Ask questions in the chat or raise hand
- We can "park" items we cannot address today and get back to you
- What else?

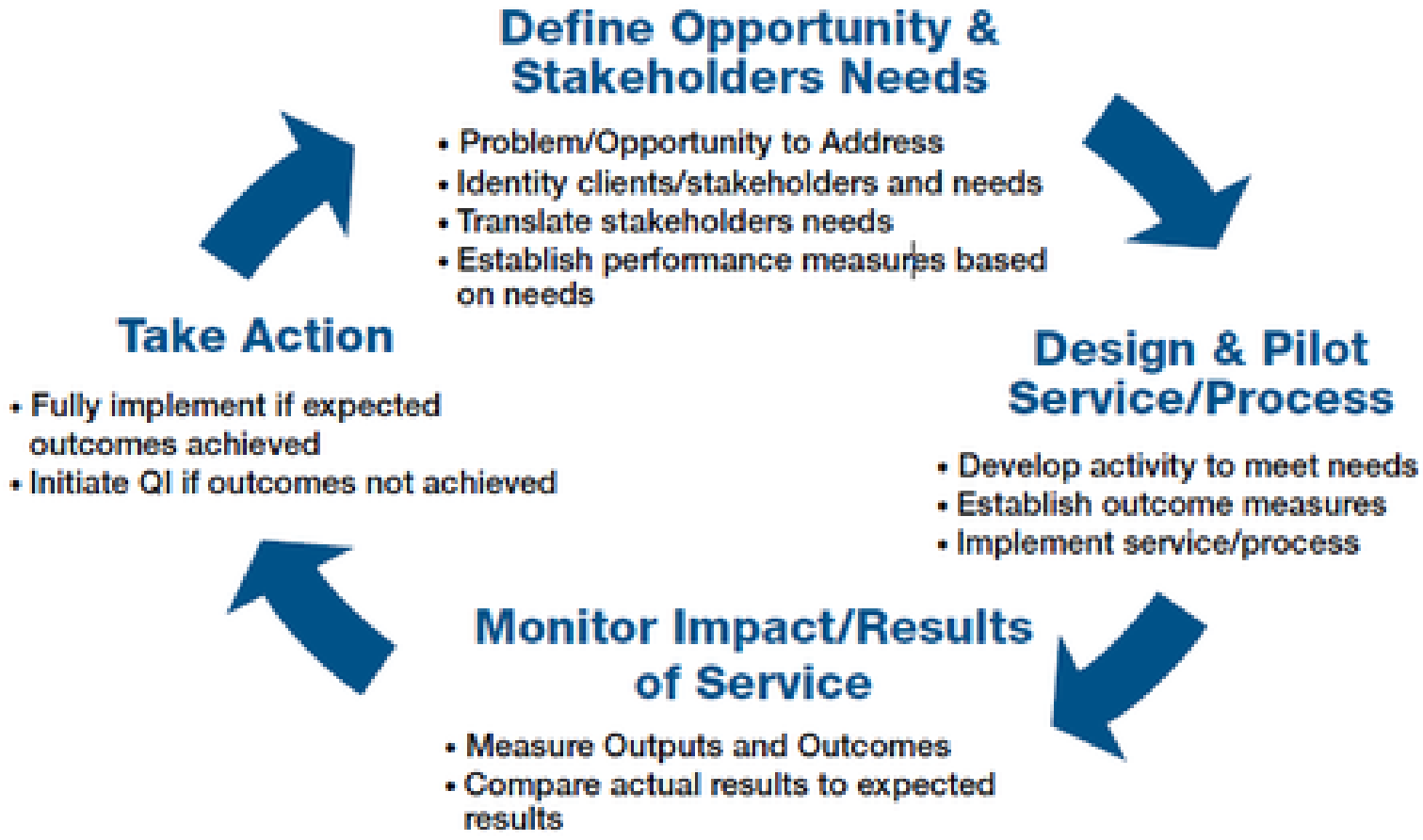
Quality Improvement Overview

The Quality Trilogy
(adapted from Joseph Juran)



Quality planning

- The role of **quality planning** is to design a process that will be able to meet established goals under operating conditions.



When to use Quality Planning…

Service/process has never existed before

Customer expectations are not known

Existing service/process performance is not capable of meeting customer expectations

Service/process is ad hoc; extremely variable; never been well defined or worked on before as a whole

No performance data exists or would take excessive time/expense to collect data

What is the difference between QA and QI?

Quality Assurance

- Reactive
- Works on problems after they occur
- Regulatory usually by State or
- Federal Law
- Led by management
- Periodic look-back
- Responds to a mandate or crisis
- or fixed schedule
- Meets a standard (Pass/Fail)

Quality Improvement

- Proactively selects a process to improve
- Works on processes
- Seeks to improve (culture shift)
- Led by staff
- Continuous
- Exceeds expectations

Beitsch, Leslie, "Understanding and Utilizing Basic QI Tools", December 5, 2012

Poll Question:

Where does your health department spend the most time?

1. Quality Assurance
2. Quality Improvement
3. Quality Planning
4. About Equal Time Spent in All 3

Institute for Healthcare Improvement
Model for Improvement

AIM Statement

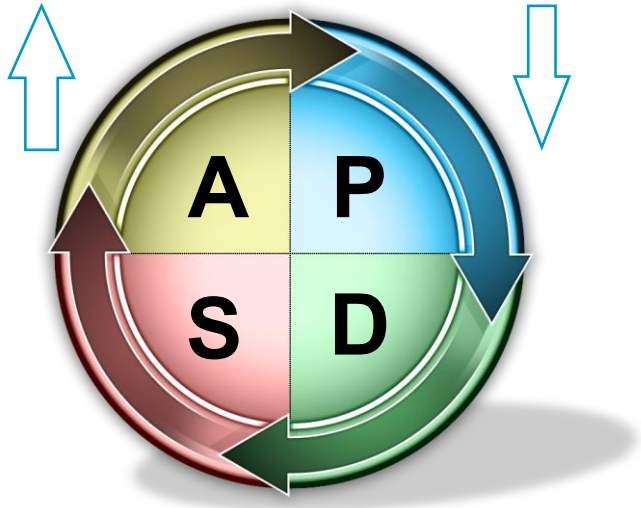
Data

Root Cause Analysis

1. What are we trying to accomplish?

2. How will we know that a change is an improvement?

3. What changes can we make that will result in an improvement?

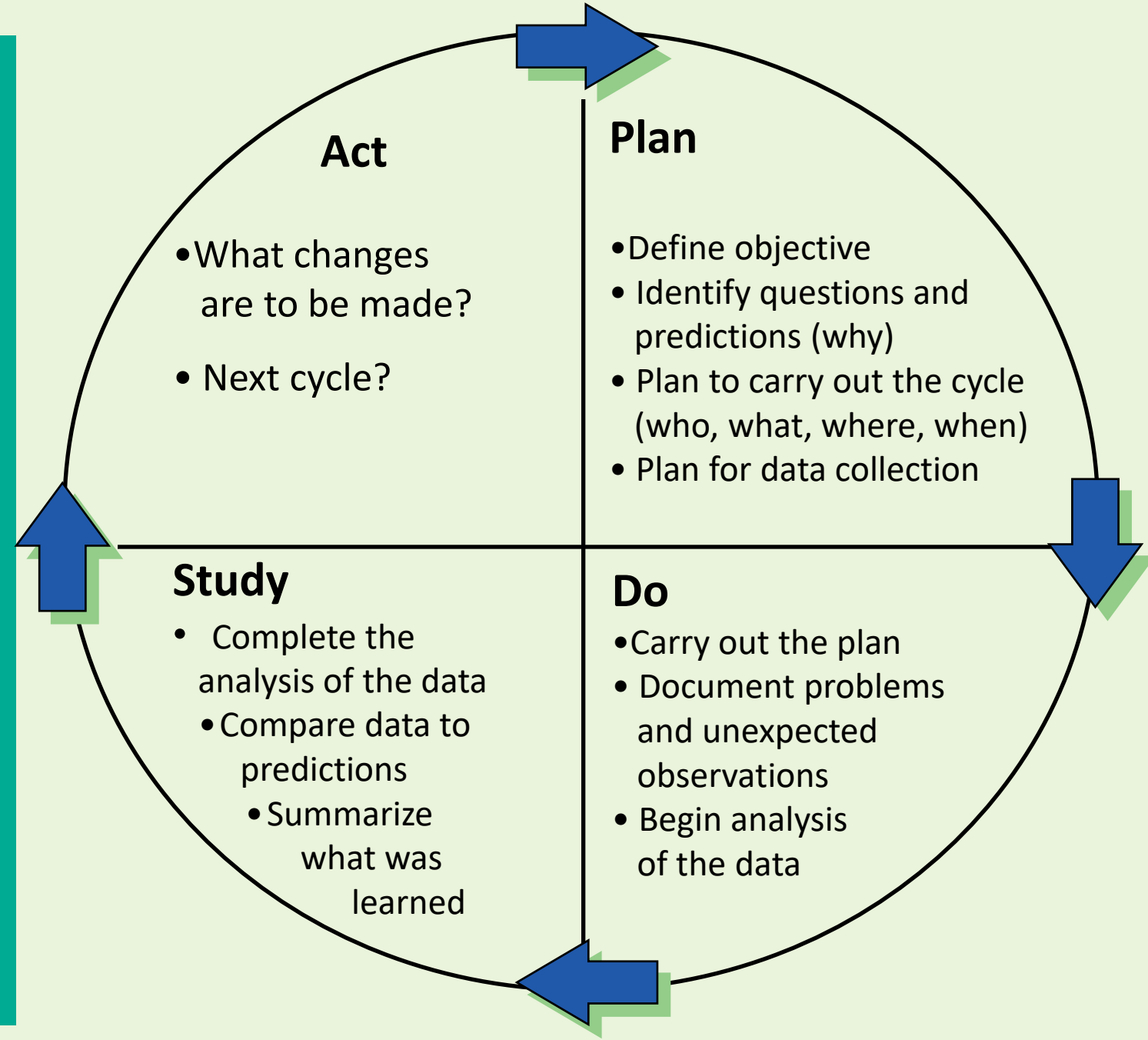


Multiple Cycles

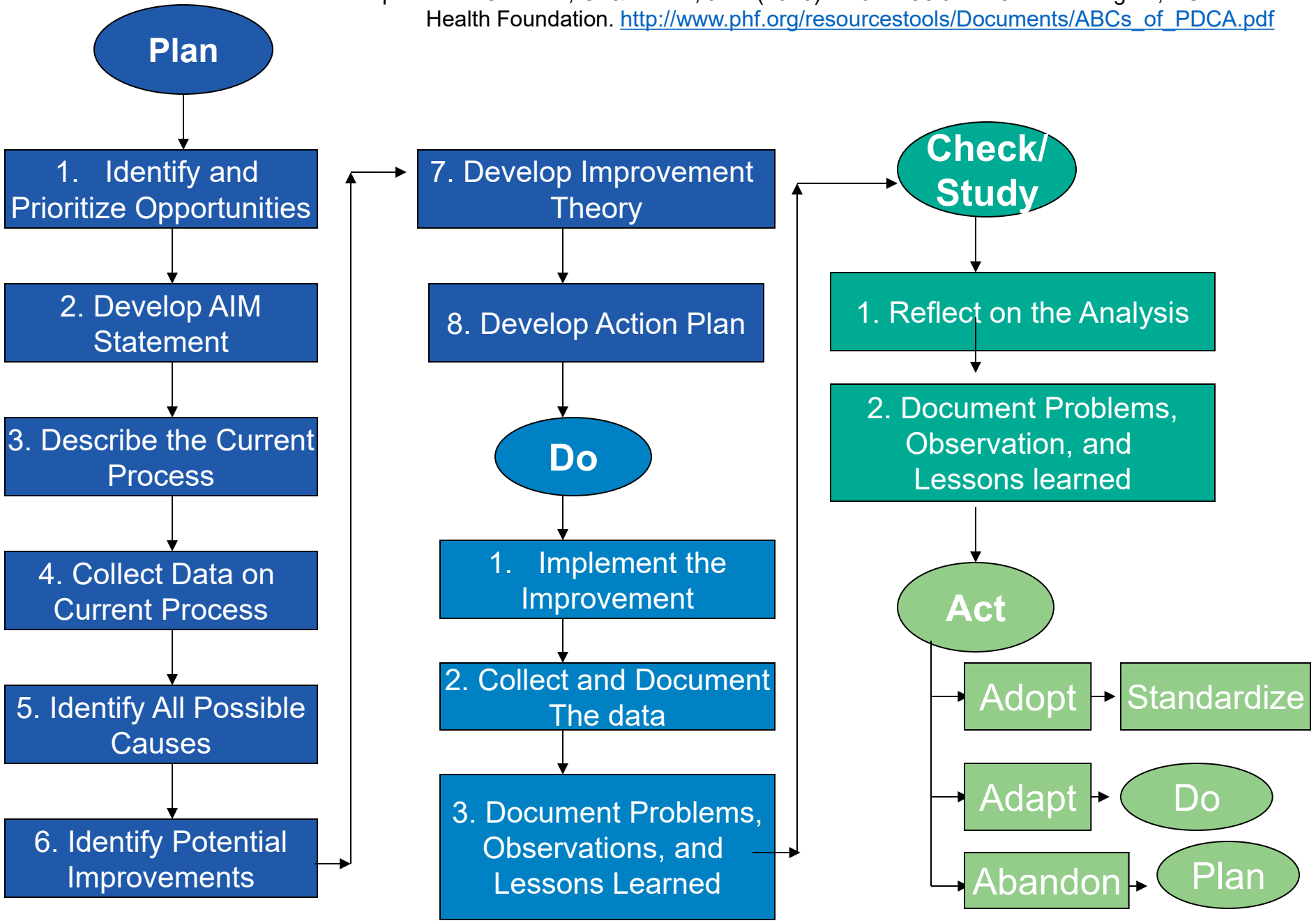
Designed to Accelerate Change.

Reference: Langley, Nolan, Nolan, Norman, & Provost. *The Improvement Guide*

The PDSA Cycle for Learning and Improvement



Adapted from Gorenflo, G. & Moran, J.W. (2010). *The ABCs of PDCA*. Washington, DC: Public Health Foundation. http://www.phf.org/resourcestools/Documents/ABCs_of_PDCA.pdf



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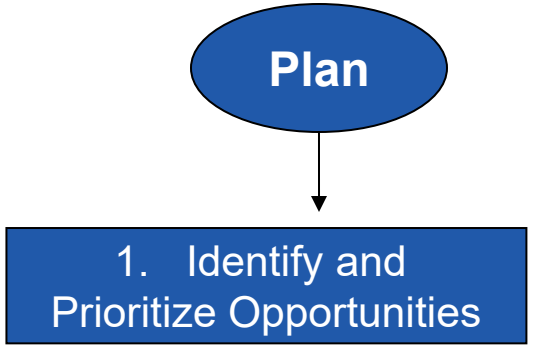


Examples

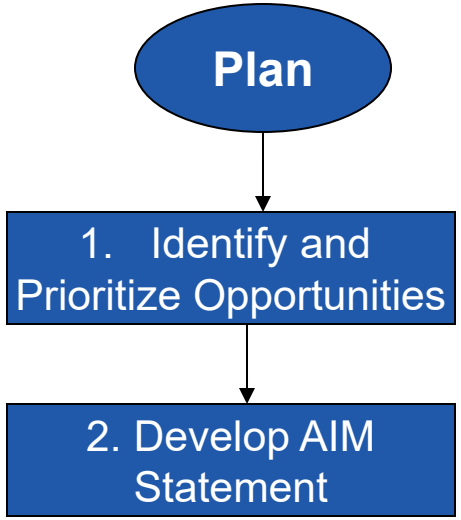
- Long customer wait times
- No shows for appts
- Inaccurate data
- Lengthy process time
- Budget over or underspent
- Low testing scores
- Failed inspections or compliance tests
- Failure to meet targets

1. Identify and Prioritize Opportunities

- Brainstorm possible QI project topics, there may be many options
- Select just one problem to address
- Develop a "problem statement"

Potential Tools: Prioritization matrix to select a project

Adapted from ABCs of the PDCA Cycle, G. Gorenflo and J. Moran, http://www.phf.org/resourcestools/Pages/The_ABCs_of_PDCA.aspx



2. Develop AIM Statement

- Express the one change you are you seeking to accomplish as a SMART Objective
- What improvement are you seeking?

(Measure of change) + (in what?) + (by whom) + (by when)

SMART

Specific
Measurable
Achievable
Relevant
Time-bound

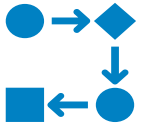
Aim Statement Worksheet

Step 1

What Are We Trying to Accomplish? (A brief measurable statement of the AIM.)

Step 2

How Will We Know That a Change is an Improvement? (Potential measures of success, including implications for future improvements that build on the improvements made in this project.)



Step 3

What baseline data do you have or do you need? (How did you identify this opportunity, with what data, from what source(s)? Brief description of the problem with any baseline data currently available.)

Step 4

What Changes Can We Make That Will Result in an Improvement? (Initial hypotheses, any benchmark data or best practices related to the issue, potential impact/overlay with other programs and activities and list of the stakeholders (internal and external) and their concerns.)

Sample AIM Statements (SMART Format)

(Measure of change) + (in what) + (by whom) + (by when)

By November 2027, increase the % of youth ages 18 and younger who will receive preventive dental exams and referrals from 14% to 30%.

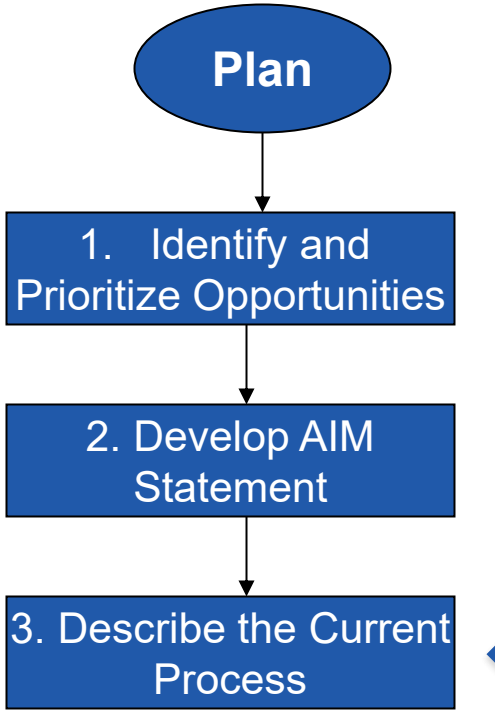
To raise 1 or more doses of HPV vaccine coverage levels among 13-17 year olds in Vaccines for Children clinics (26) from 38% to 50% by January, 2026.

By December 2014, 100% of staff timesheets will be submitted on-time and error-free. (from baseline of 60%)

By January 2026, reduce by 25% temperature violations during temporary food inspections.

Decrease the number of days for the contract approval cycle from 25 days to 10 days by January 2026.

Adapted from ABCs of the PDCA Cycle, G. Gorenflo and J. Moran, http://www.phf.org/resourcestools/Pages/The_ABCs_of_PDCA.aspx

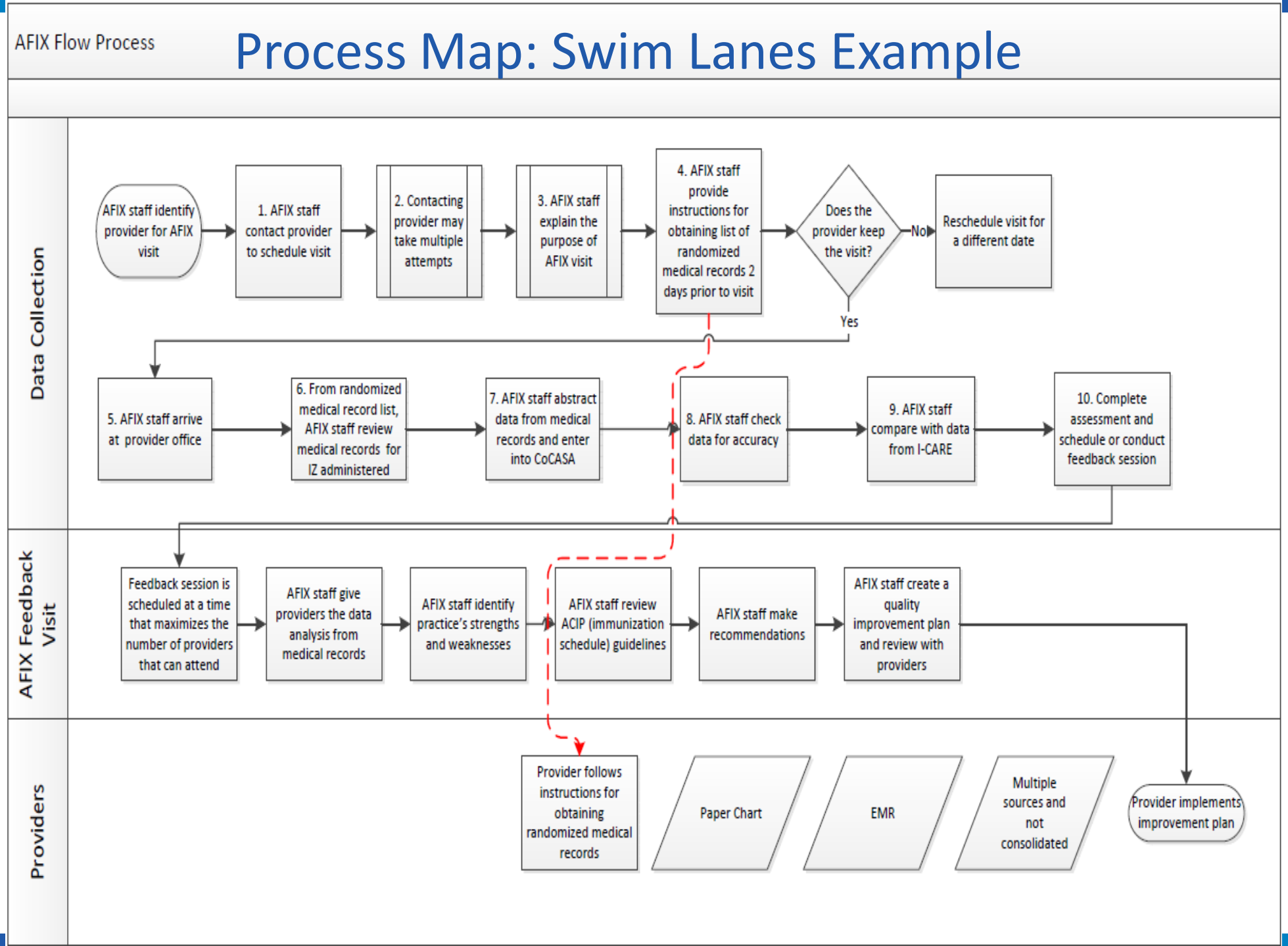


3. Describe the Current Process

- Understand the "process" and identify potential areas for improvement
- How does the process work now?

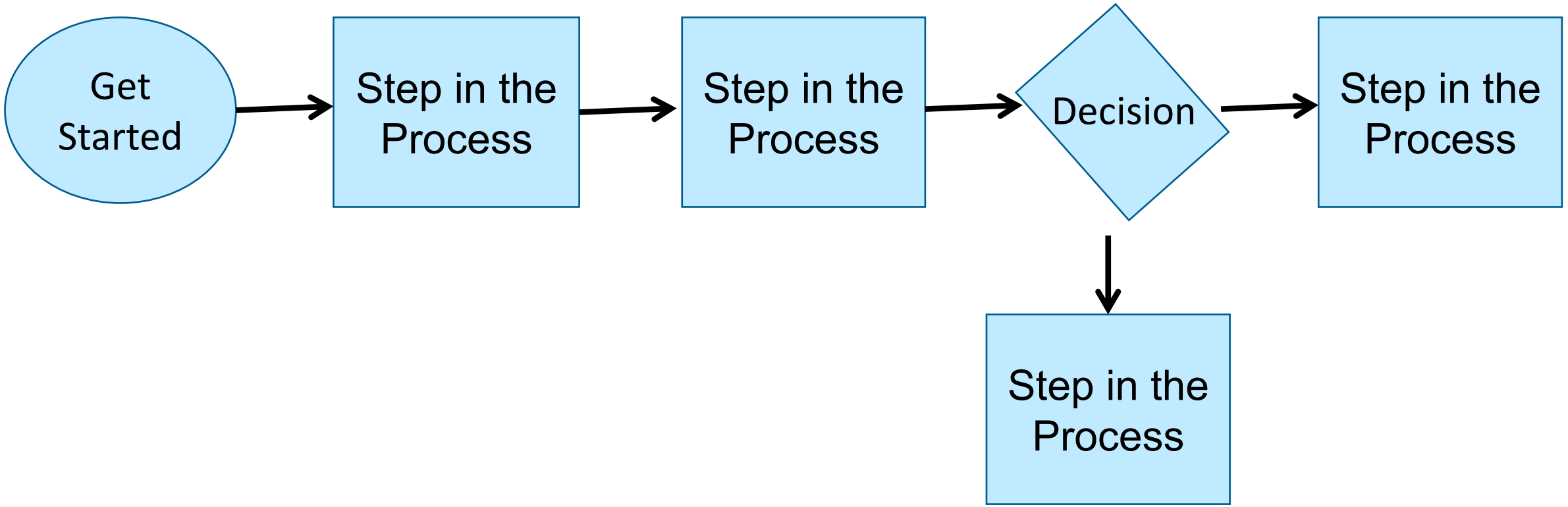
Potential Tools: Workflow diagram (e.g., flow chart, value stream mapping)

Process Map: Swim Lanes Example

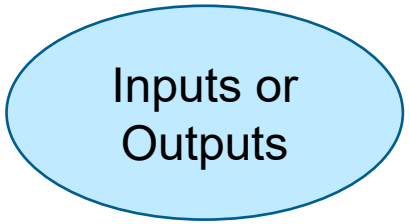


What is a Process Map?

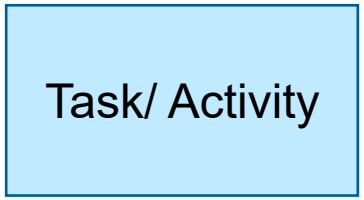
- A pictorial representation of the sequence of actions that comprise a process.



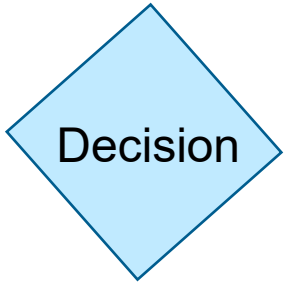
Basic Flowchart Symbols



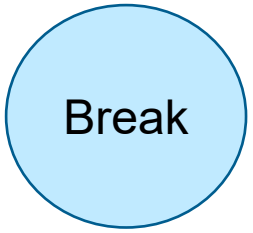
An **oval** indicates materials, Information or action (inputs) to start process or show results at end (output).



A **box or rectangle** is used to show a task or activity performed in the process. Although multiple arrows may come into each box, usually only one output or arrow leaves each activity box.



A **diamond** shows those points in the process where a yes/no question is being asked of a decision is required.



A **circle** with either a letter or number identifies a break in the flowchart and its continued elsewhere on same page or another page

Arrows show the direction or flow of the process

Why is Process Mapping Important?

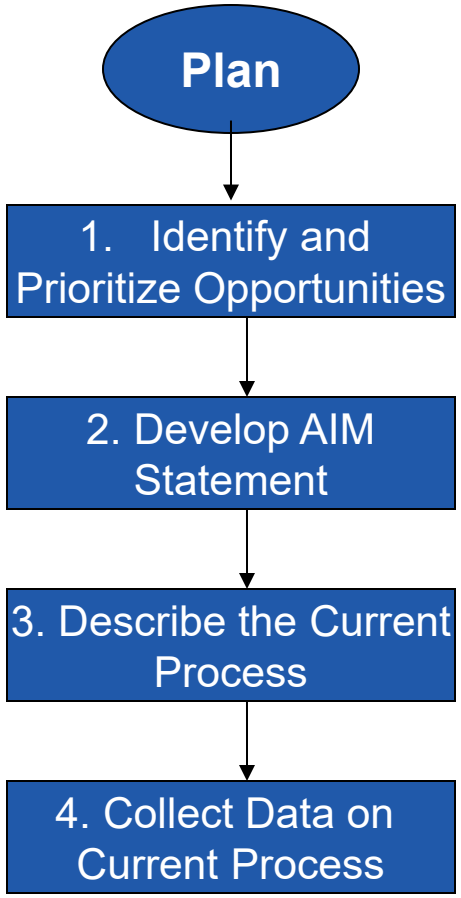
"You cannot begin to improve a process until you understand it!"

W. Edwards Deming

"You don't learn to Process Map,
You Process Map to learn."

Dr. Myron Tribus

Adapted from ABCs of the PDCA Cycle, G. Gorenflo and J. Moran, http://www.phf.org/resourcestools/Pages/The_ABCs_of_PDCA.aspx



4. Collect Data on Current Process

- Collect/analyze data that aligns with the measure(s) in the AIM Statement
- What data do you already collect or can you collect to understand the problem or may serve as baseline data?

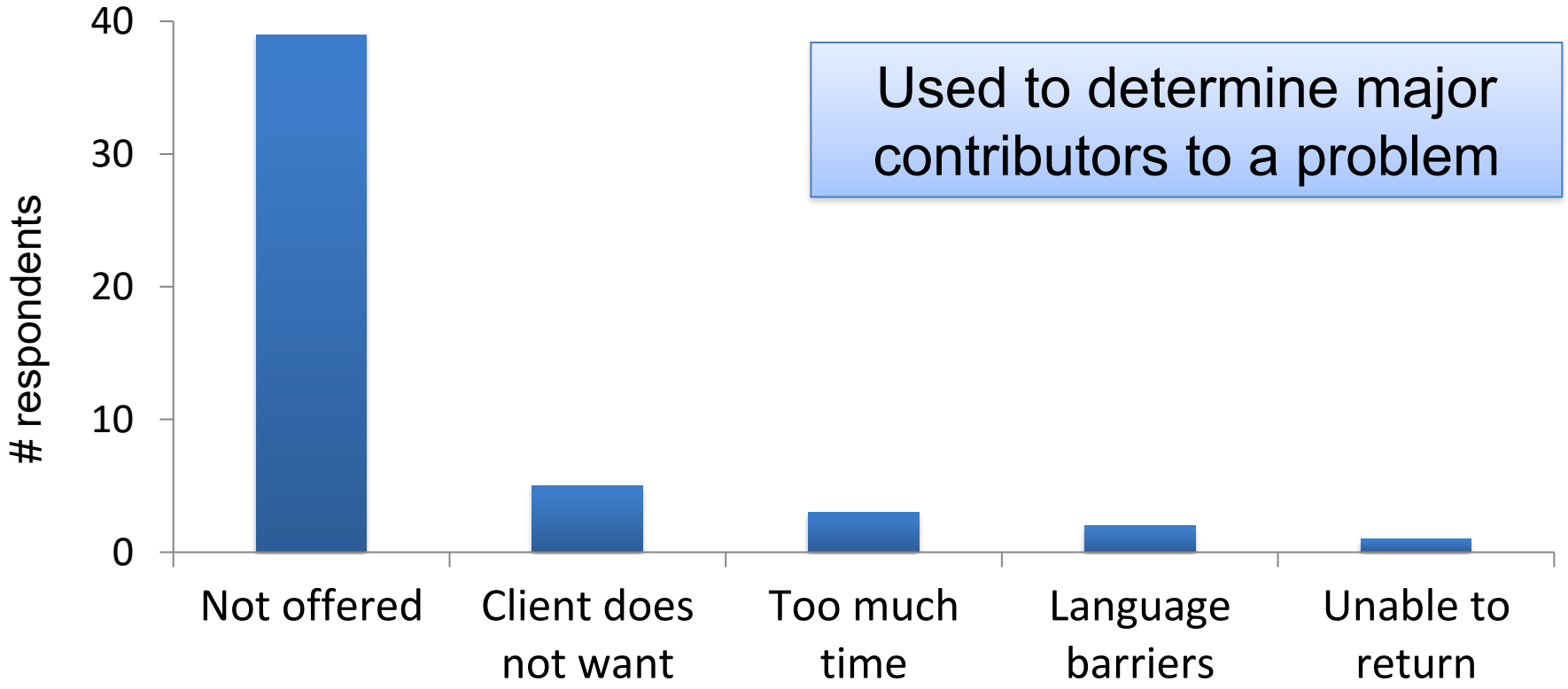
Potential Tools: Pareto charts, histogram, run charts, scatter plots, control charts, etc.

Pareto Principle:

20% of sources cause 80% of any problem

Pareto Chart:

Why do fewer clients in clinic B receive HIV tests?



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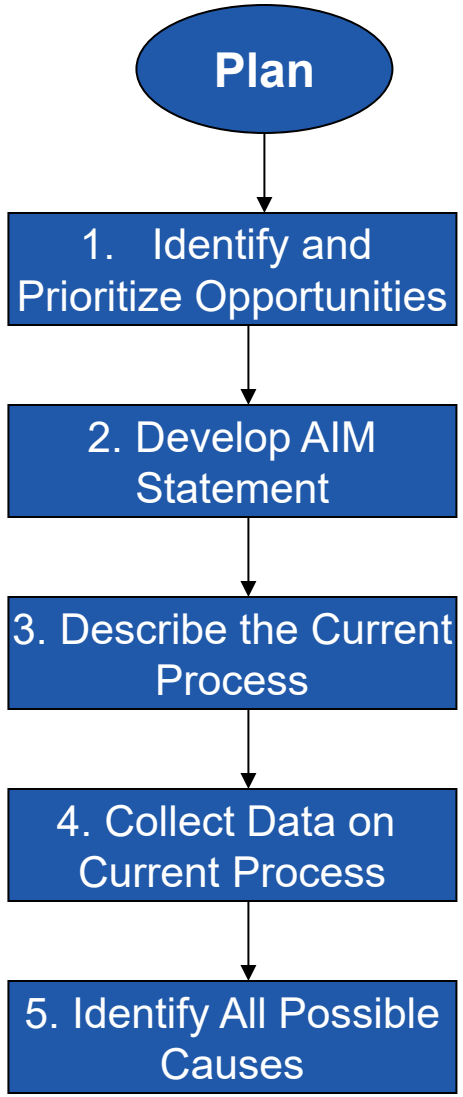


Adapted from ABCs of the PDCA Cycle, G. Gorenflo and J. Moran, http://www.phf.org/resourcestools/Pages/The_ABCs_of_PDCA.aspx

5. Identify All Possible Causes

- Identify all possible causes of the problem and determine the one root cause you will focus on.

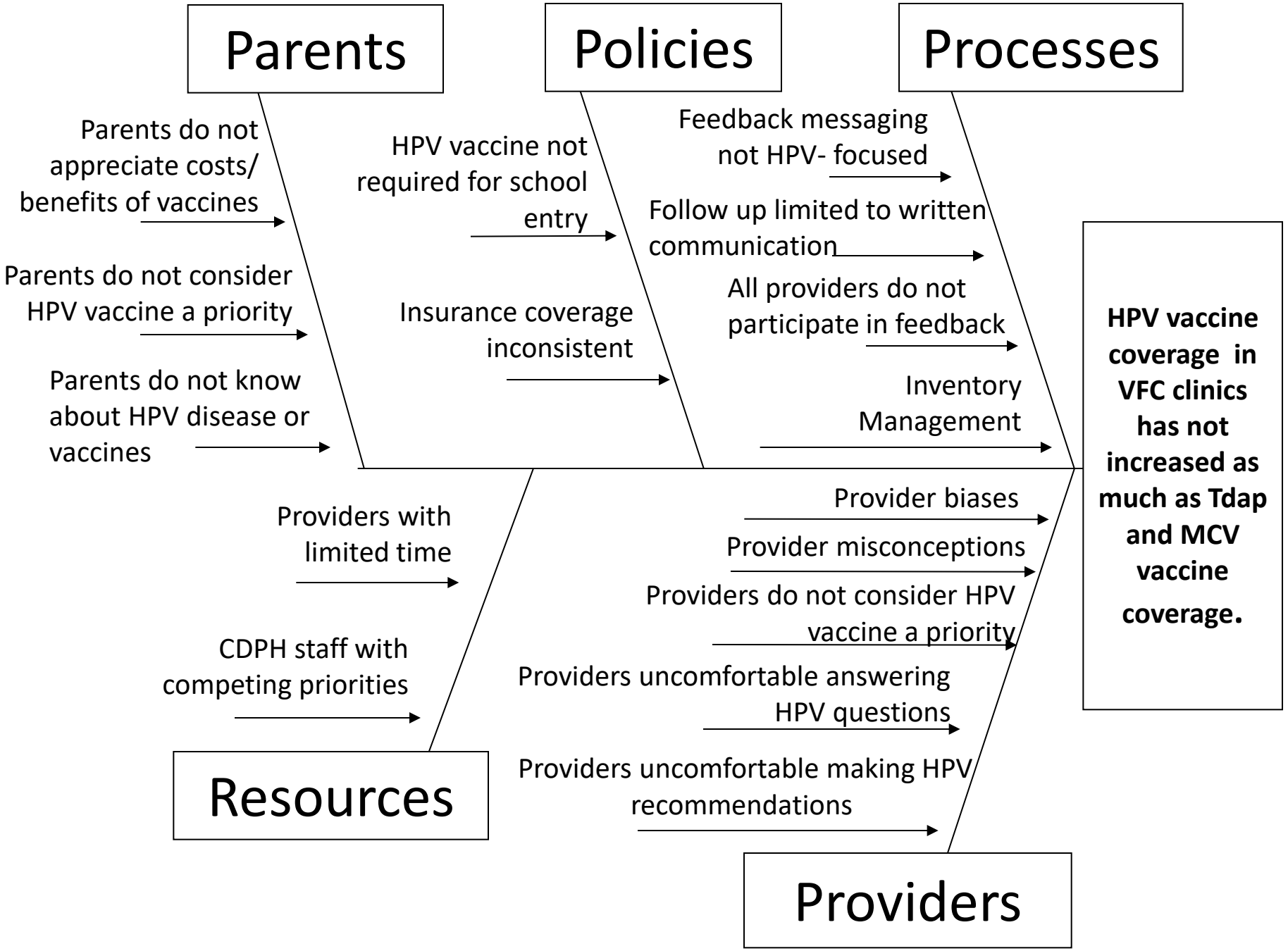
Potential Tools: Affinity diagram, cause and effect/fishbone diagram, the 5 whys, interrelationship diagraph, prioritization matrix, control and influence chart

Affinity Diagram

- Phrase the issue under discussion in a full sentence.
- Participants identify one idea (answer) per post it-note (brief sentence or a phrase). Usually 3-5 ideas from each person.
- Without talking, participants sort ideas into “like” groupings.
- Name the groupings – create headers using consensus of group.

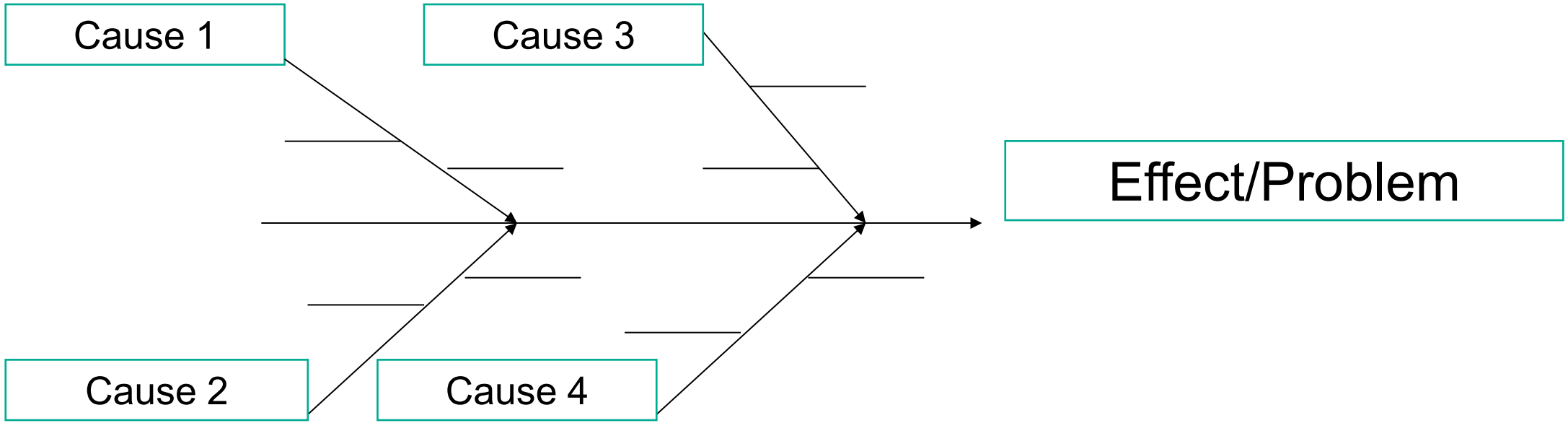
Public Health Memory Jogger

Image: http://www.baran-systems.com/Products/Affinity%20Diagram%20for%20Excel/index_concept.htm


Parents
Policies
Processes
Parents do not appreciate costs/ benefits of vaccines
Parents do not consider HPV vaccine a priority
Parents do not know about HPV disease or vaccines
HPV vaccine not required for school entry
Insurance coverage inconsistent
Feedback messaging not HPV- focused
Follow up limited to written communication
All providers do not participate in feedback
Inventory Management
HPV vaccine coverage in VFC clinics has not increased as much as Tdap and MCV vaccine coverage.
Providers with limited time
CDPH staff with competing priorities
Resources
Provider biases
Provider misconceptions
Providers do not consider HPV vaccine a priority
Providers uncomfortable answering HPV questions
Providers uncomfortable making HPV recommendations
Providers

Fishbone Diagram

- Draw an arrow leading to a box that contains a statement of the problem
- Draw smaller arrows (bones) leading to the center line, and label these arrows with either major *causal categories* or *process categories*
- For each cause, identify deeper, root causes

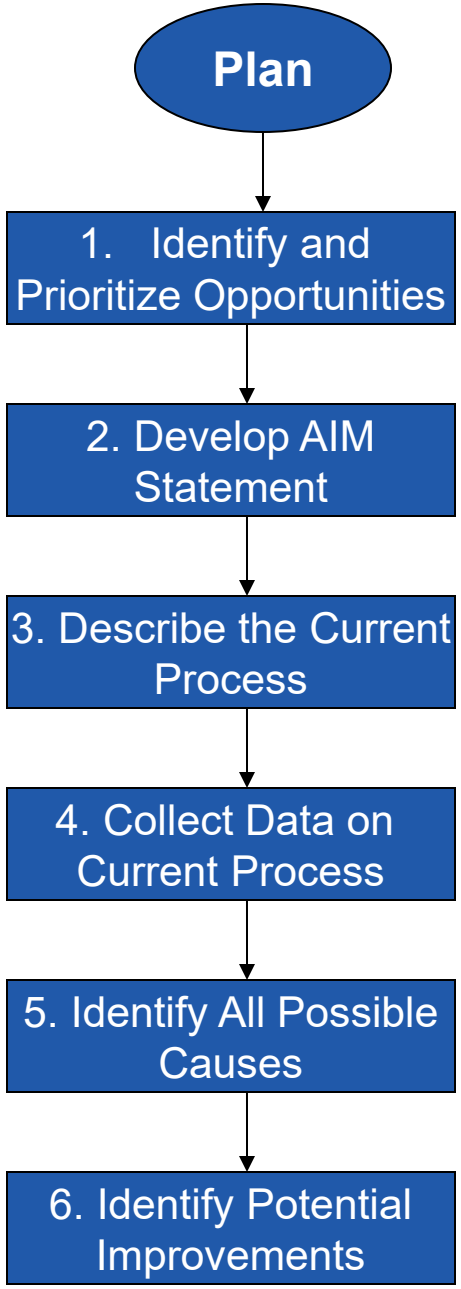


Fishbone Diagrams: Hints & Tricks

- **Find the right problem or effect statement**
  - The problem statement should reflect an outcome of a process that you control or influence
  - Be specific & reach consensus
- **Find causes that make sense and that you can impact**
  - Generate categories through:
    - Brainstorming
    - Looking at your data
  - Ask “why?” to achieve a deeper understanding
  - Know when to stop
    - Stick to what you and your managers can control or directly influence
- **Make use of your results**
  - Decide if you need more data
  - Consider causes that come up again and again, and causes that group members feel are particularly important

Michigan Public Health Institute 2006. Memory Jogger, page 32.

Adapted from ABCs of the PDCA Cycle, G. Gorenflo and J. Moran, http://www.phf.org/resourcestools/Pages/The_ABCs_of_PDCA.aspx

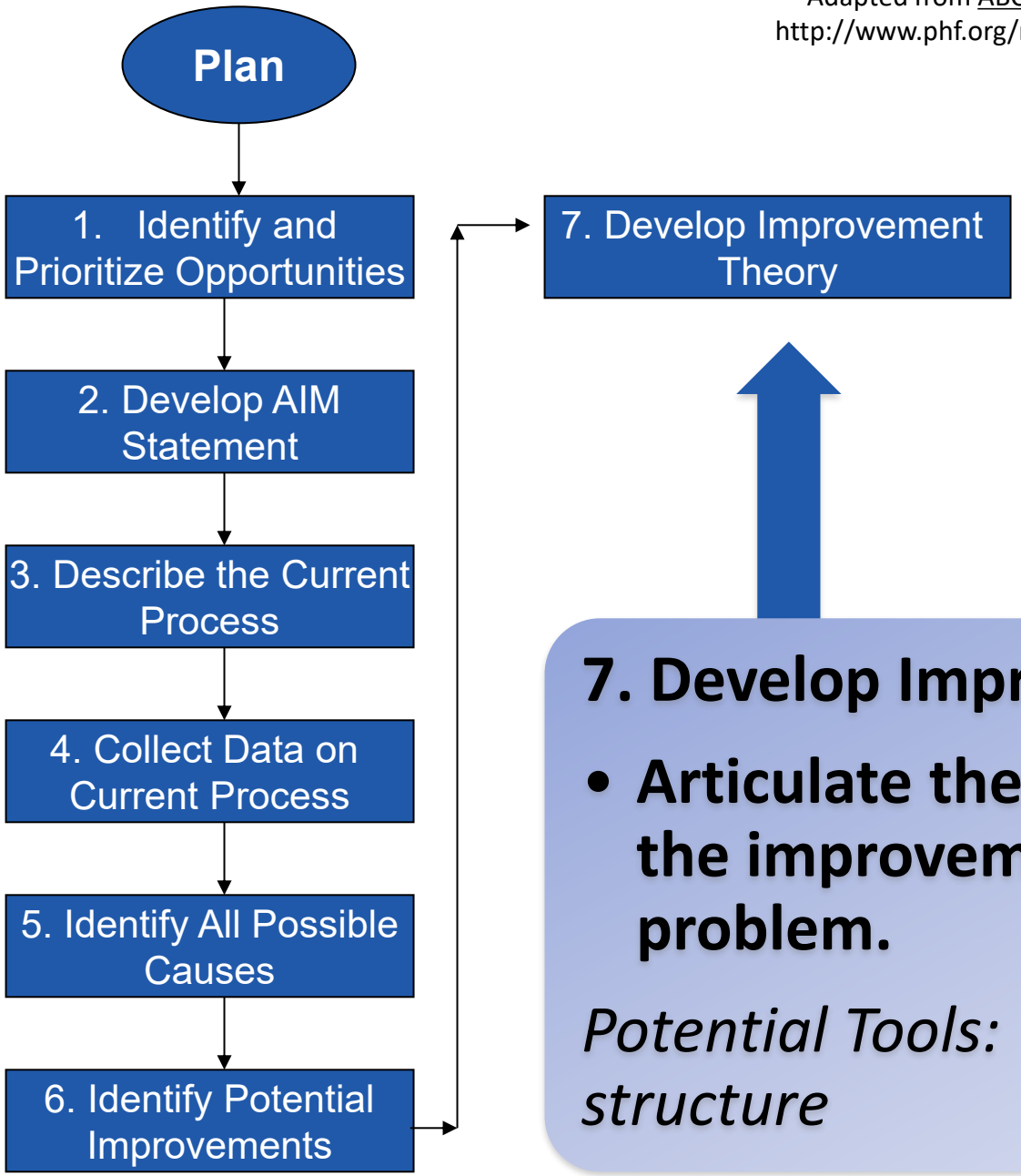


6. Identify Potential Improvements

- Identify potential improvements to address the root cause
- Agree on one improvement (i.e., intervention) to test
- Revisit AIM Statement and revise measureable improvement objectives, as needed

Potential Tools: Prioritization matrix, Influence and Control chart

Adapted from ABCs of the PDCA Cycle, G. Gorenflo and J. Moran, http://www.phf.org/resourcestools/Pages/The_ABCs_of_PDCA.aspx

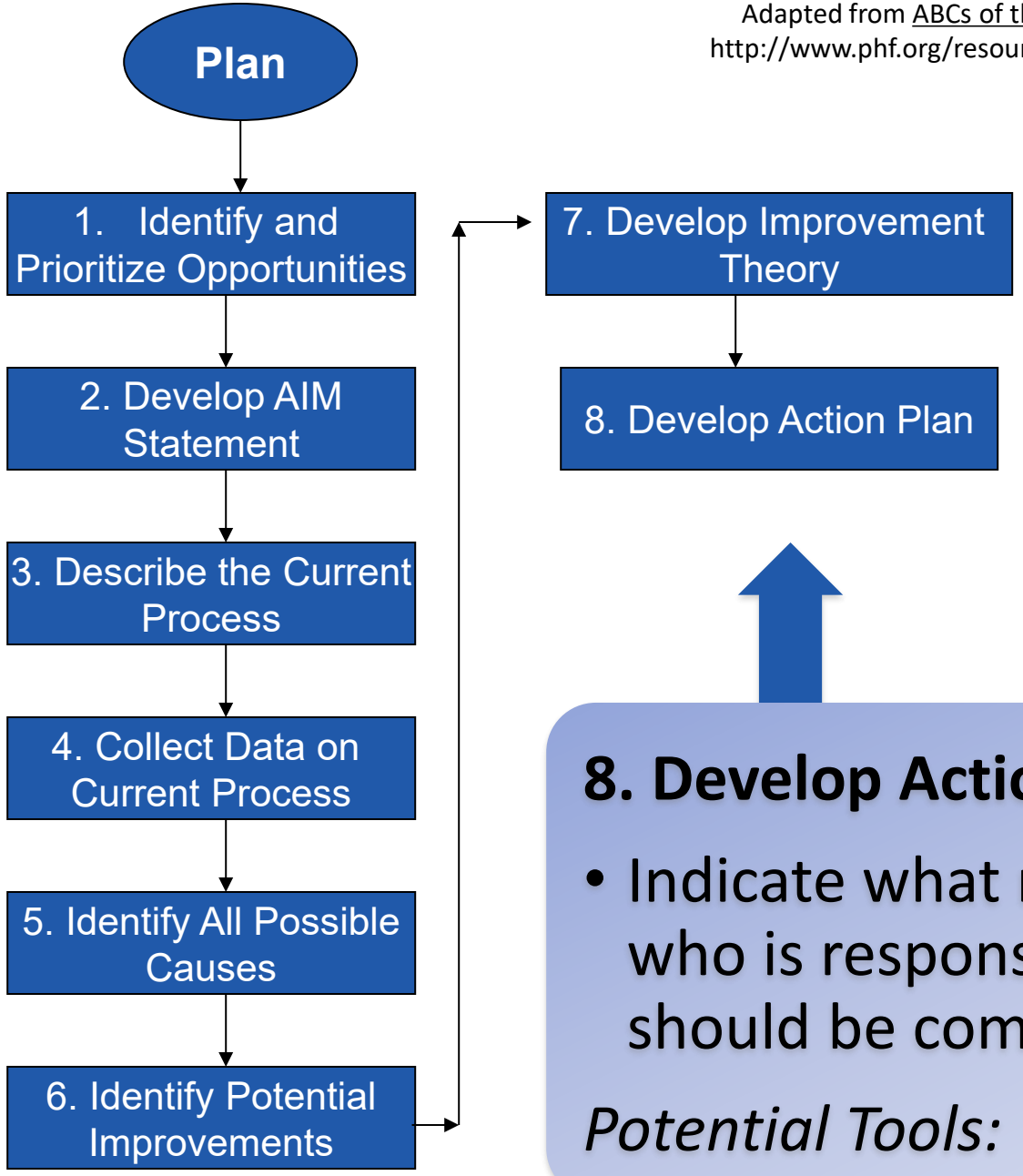


7. Develop Improvement Theory

- **Articulate the effect you expect the improvement to have on the problem.**

Potential Tools: "If…. Then…" structure

Adapted from ABCs of the PDCA Cycle, G. Gorenflo and J. Moran, http://www.phf.org/resourcestools/Pages/The_ABCs_of_PDCA.aspx

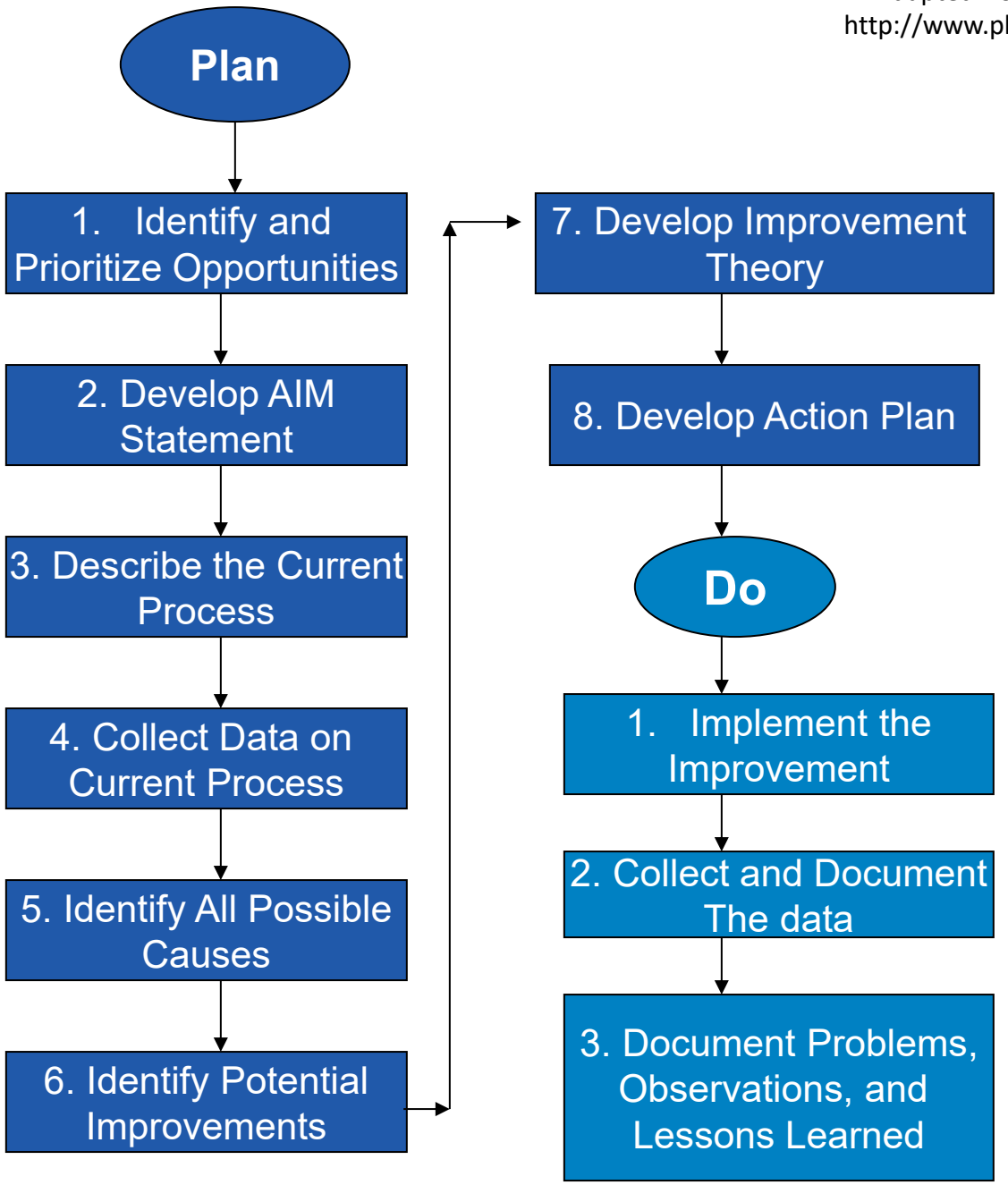


8. Develop Action Plan

- Indicate what needs to be done, who is responsible, and when it should be completed

Potential Tools: PDCA Action Plan

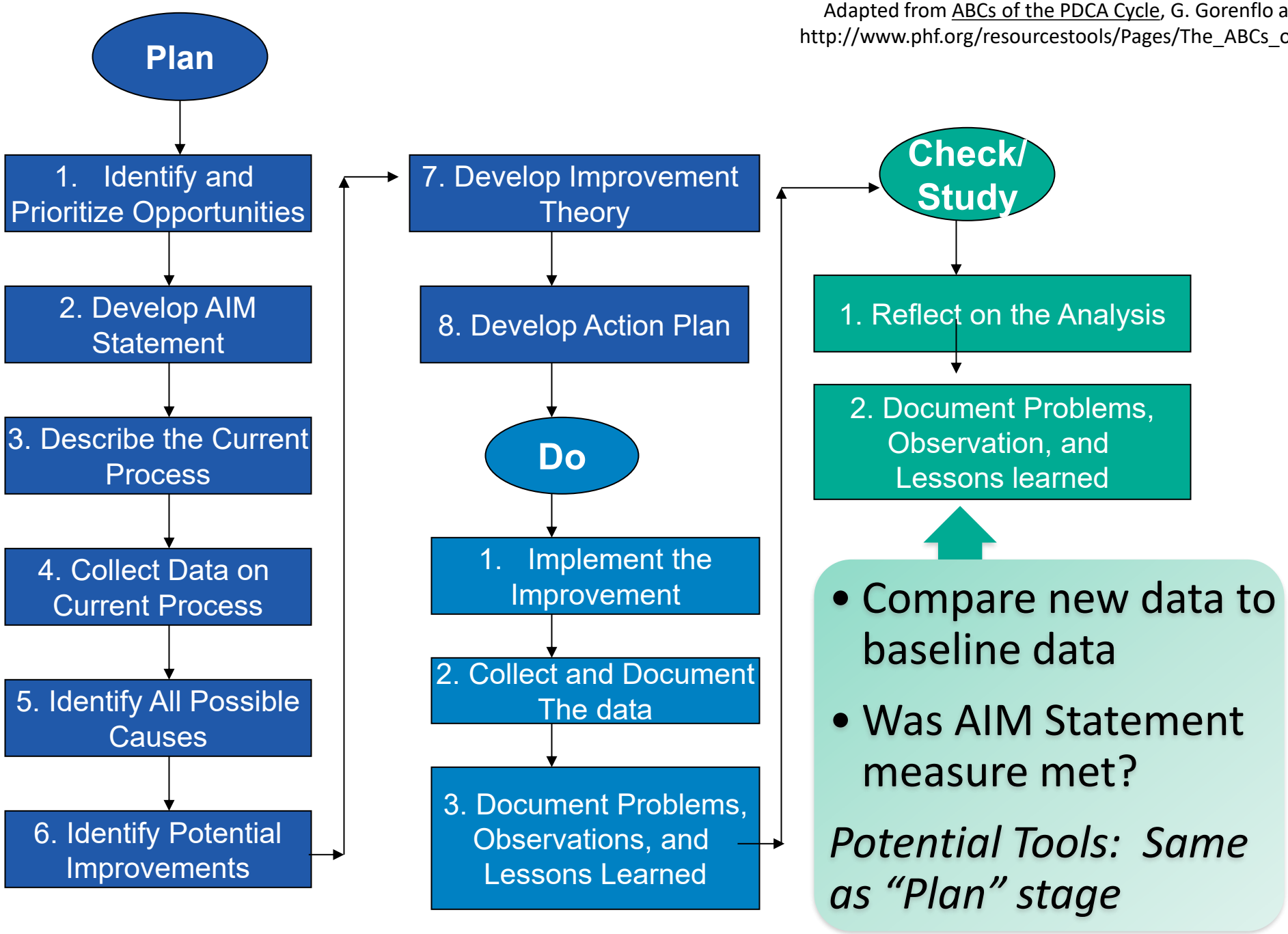
Adapted from ABCs of the PDCA Cycle, G. Gorenflo and J. Moran, http://www.phf.org/resourcestools/Pages/The_ABCs_of_PDCA.aspx



Implement the Action Plan & collect data

Potential Tools: Action Plan, spreadsheets

Adapted from ABCs of the PDCA Cycle, G. Gorenflo and J. Moran, http://www.phf.org/resourcestools/Pages/The_ABCs_of_PDCA.aspx



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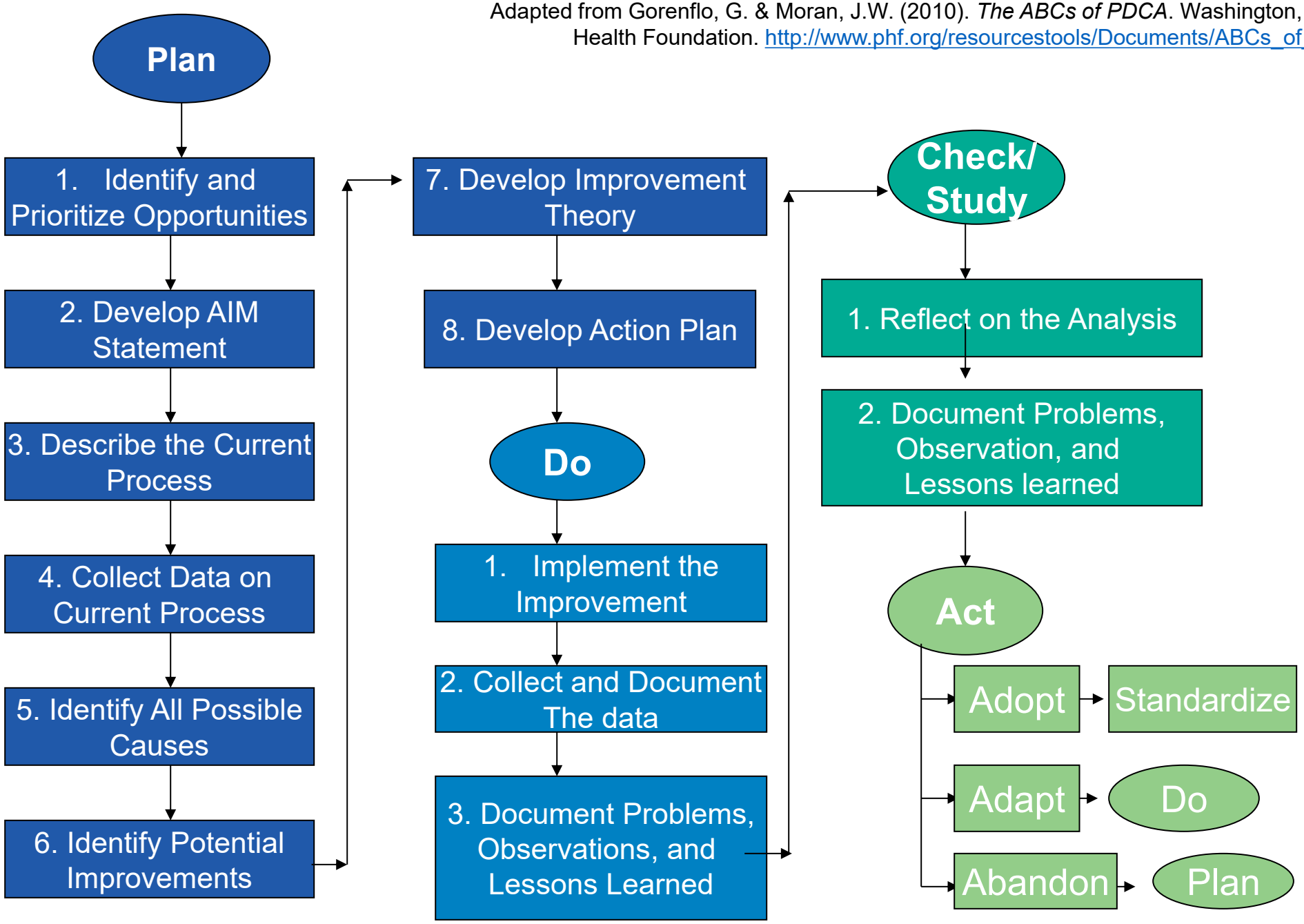
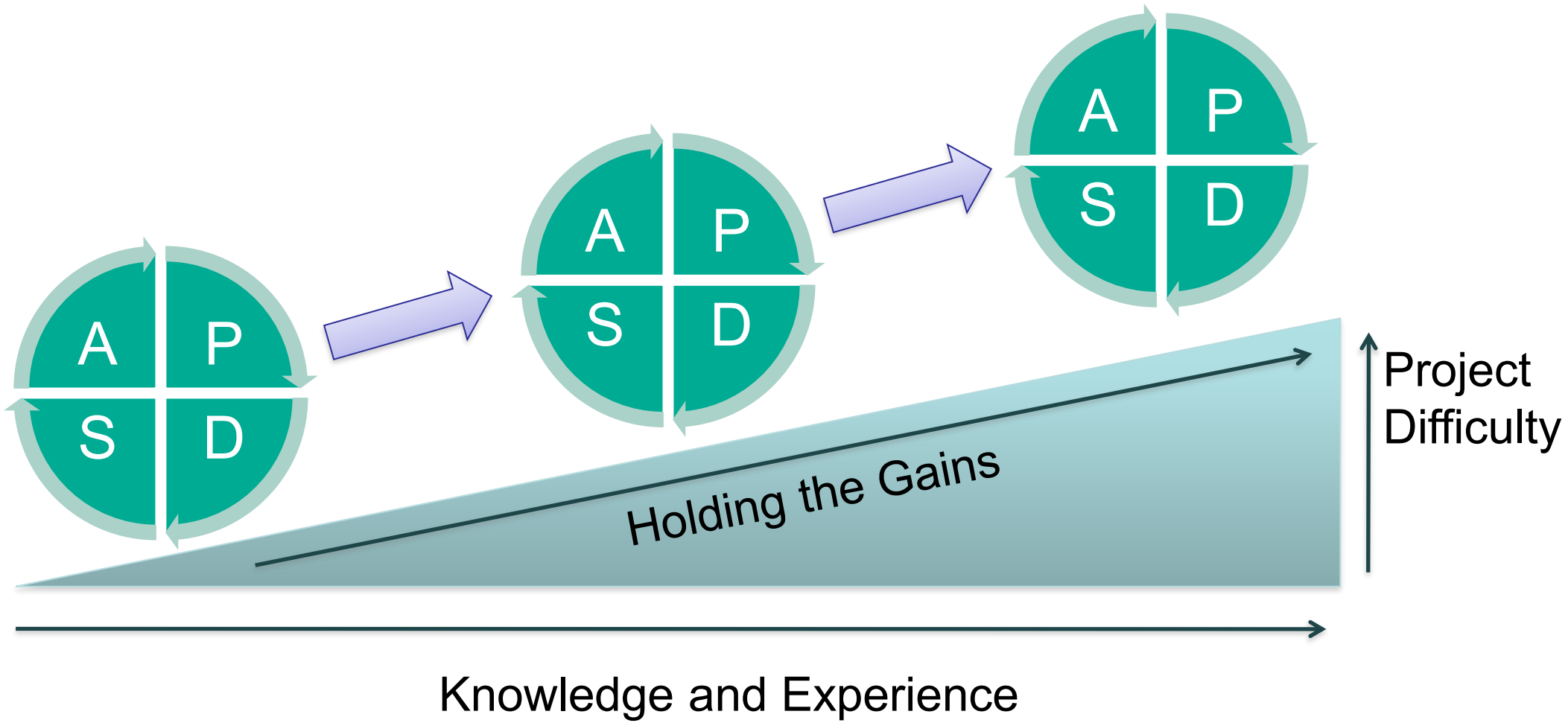
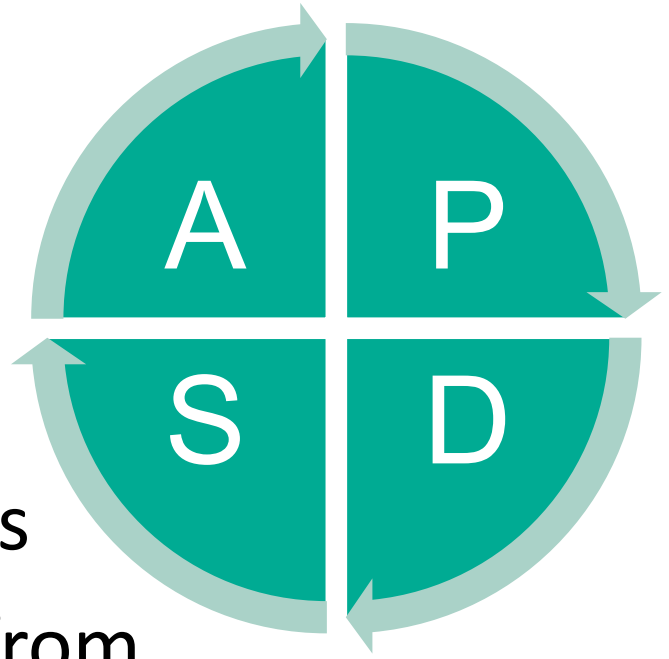


Rapid Cycle PDSA



Duffy, G., Moran, J., and Riley, W. Rapid Cycle PDCA. Published in Quality Texas Foundation Update (August 2009). Available at: http://www.phf.org/resourcestools/Pages/Rapid_Cycle_PDCA.aspx

Rapid Cycle PDSA



- Short cycles
- Iterative process
- Hold the gains from one cycle to the next
- Recurring cycles allows testing of multiple interventions

Duffy, G., Moran, J., and Riley, W. Rapid Cycle PDCA. Published in Quality Texas Foundation Update (August 2009). Available at: http://www.phf.org/resourcestools/Pages/Rapid_Cycle_PDCA.aspx

Questions and Observations

Ways to participate…

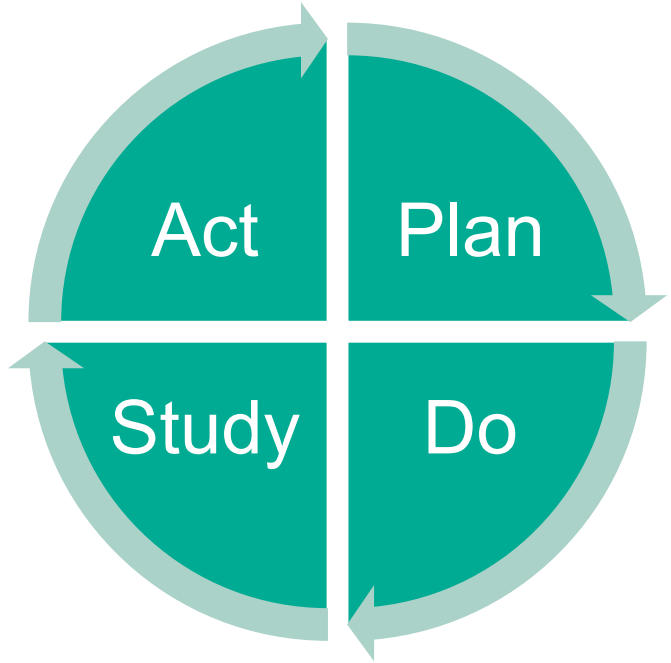
- Raise a hand and we will unmute your line.
- Type a comment or question in the chat log.

Share the following…

- Any questions or comments.
- An example of a QI project.
- A challenge or success with QI.

Principles of Quality Improvement

1. Know your stakeholders and what they need
2. Focus on processes
3. Use data for making decisions
4. Use teamwork to improve work
5. Make quality improvement continuous
6. Demonstrate leadership commitment

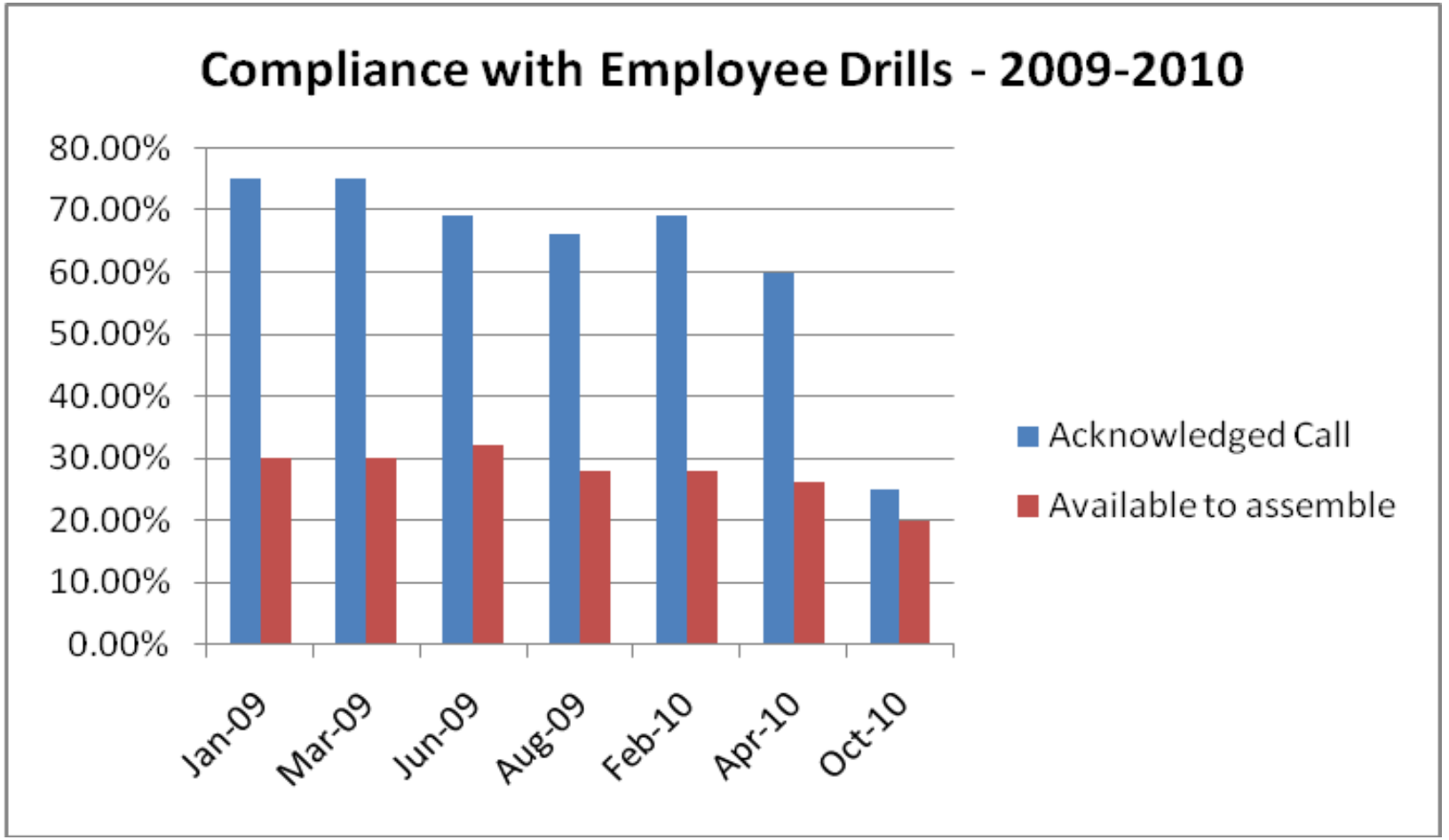


MARMASON Consulting: Quality Improvement in Public Health: It's Not Another Program

People or Process?

Public Health Emergency Response Program

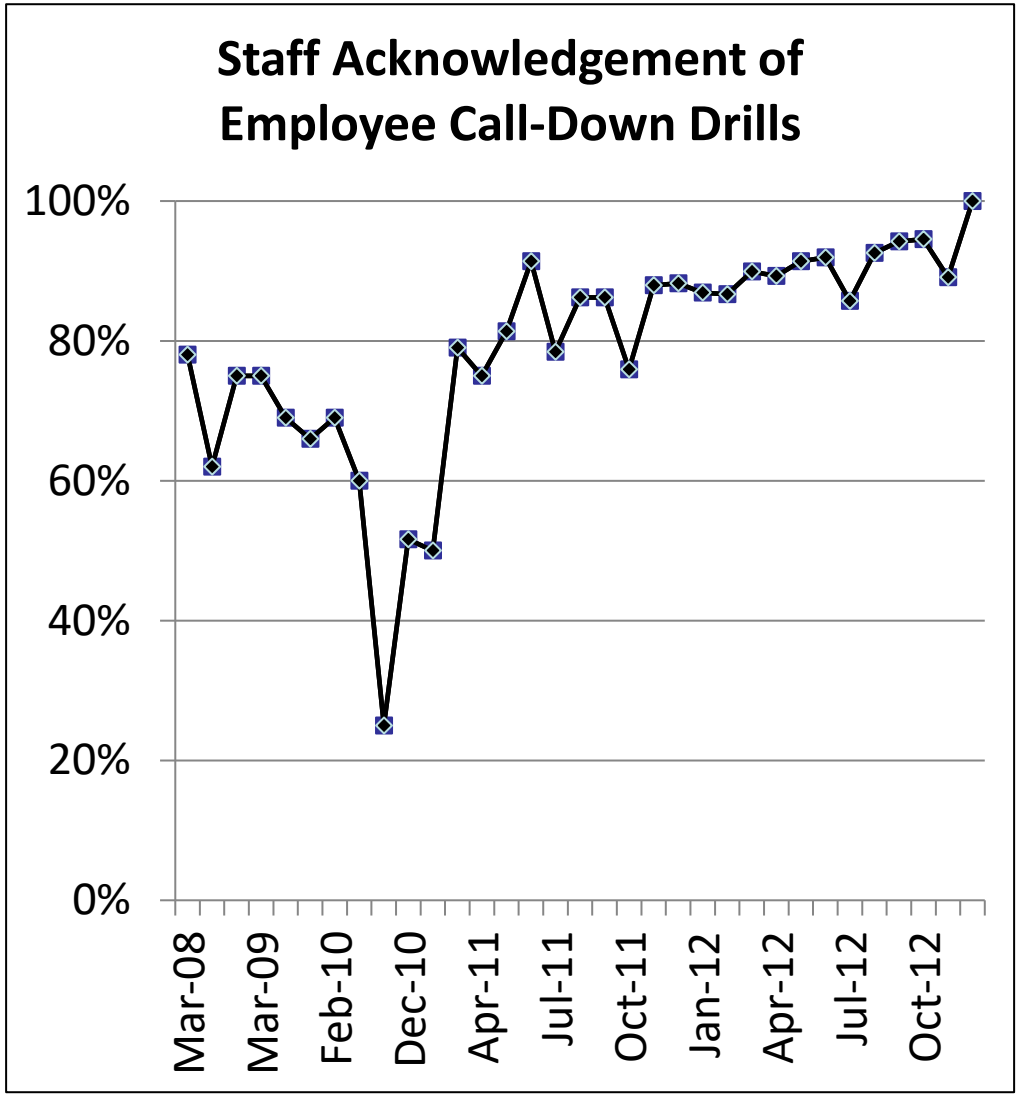
- **Problem**: Decline in employee call-down response in Oct. 2010
- **Theory**: People are not responding



Check Assumptions by Looking at Process

Public Health Emergency Response Program

- **Reality**: System not accurately recording responses, lack of understanding
- **Result**: Change in system = improved (and SUSTAINED) improvement



Team Charter

- Team Purpose
  - Why Team Exists
  - Adequate Knowledge and Representation on Team
  - Understanding of Stakeholders
- Team Behavior and Operations
  - Ground Rules
  - Decision-Making
  - Communication
  - Roles and Participation Agreements
  - Values
- Documentation and Measures of Team Progress
  - Indicators of Team Progress – Movement in right direction.
  - Types of Measures and Outcomes
  - Short, Intermediate and Long-term
  - Projected Dates

Developing the CHIP with QI

NACCHO
National Association of County & City Health Officials

QI on the CHIP: Project Charter Template

This project charter guides communities through a process to conduct a quality improvement (QI) project of a community health improvement plan (CHIP) priority area. This template pushes communities to frame QI around the root causes of health inequity and engage cross-sectoral partners and community members in the improvement process.

Part 1: Background and Context

What is the current situation?

1. CHIP Priority Area:

2. Problem Description: *Briefly describe why this CHIP priority was selected and what specific community health indicators you have that informed this. Identify the magnitude of the problem, the populations experiencing inequities and how they are being impacted.*

3. Social and Structural Determinants: *Identify and describe the specific social or structural determinants of health that are leading to the inequities described above. What historical context in the community sheds insights on the identified inequities?*

4. Current Systems and Processes: *Describe how the community, including your health department, is currently meeting the needs of the populations experiencing inequities relating to your CHIP priority. What are the systems and processes involved? When have they been effective and where do they fall short?* ***Provide any baseline data that may be available.***

5. Intervention Levels: *Describe how upstream your current efforts are. To what degree are current efforts to address these inequities changing the context within which those most impacted live? Are most interventions treating the health problem at the individual level versus the systems level, preventing inequities by making social or structural level changes at the community or societal levels?*

QI on the CHIP: NACCHO's Project Charter Template

- Background and Context
  1. CHIP Priority Area
  2. Problem Description
  3. Social and Structural Determinants
  4. Current Systems and Processes
  5. Intervention Levels

QI on the CHIP: NACCHO's Project Charter Template

- About Your Project

What are we trying to accomplish?

6. Project Description
7. Team Members

NACCHO
National Association of County & City Health Officials

Part 2: About Your Project

What are we trying to accomplish?

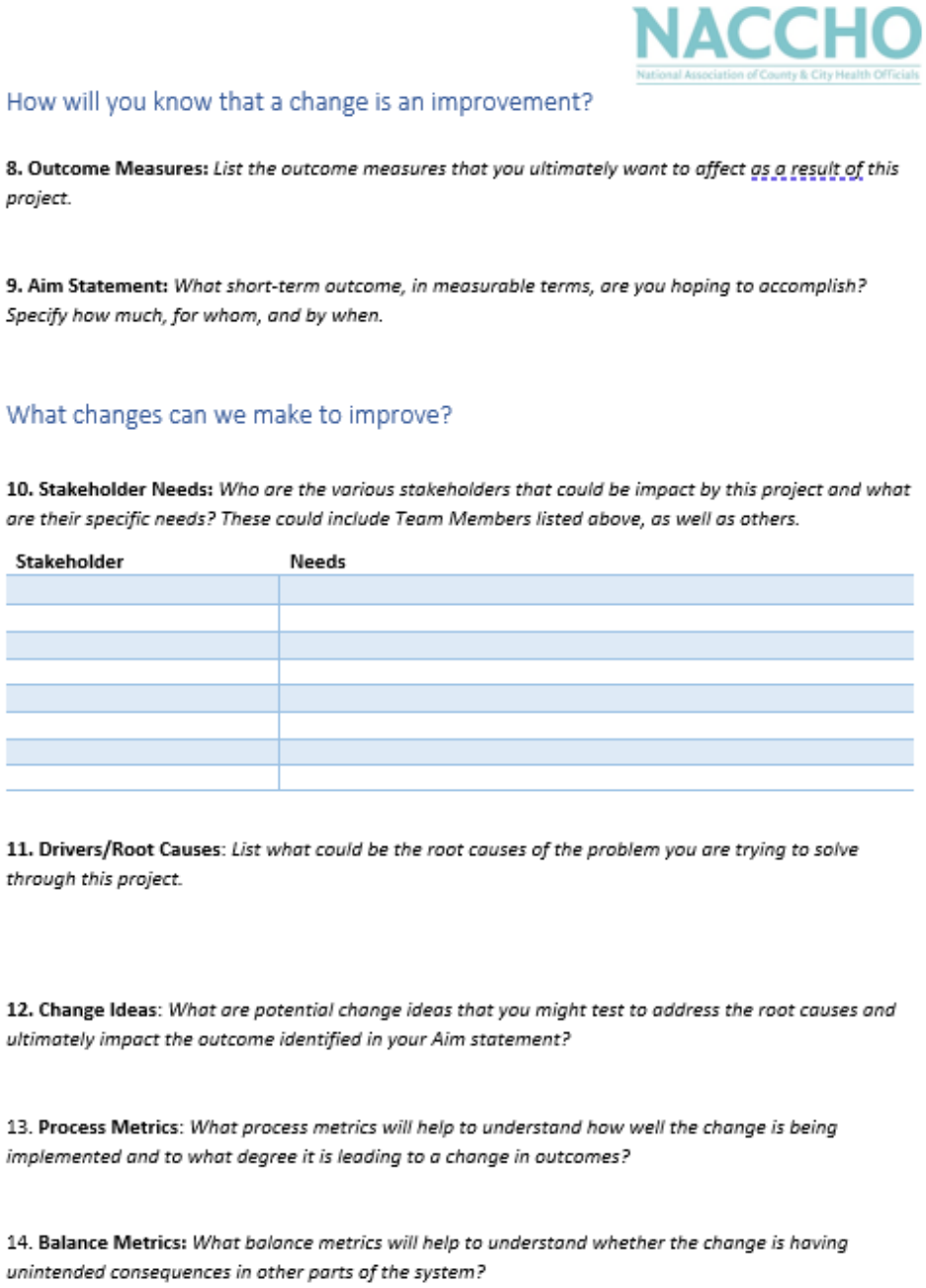
6. Project Description: *For this project, describe what specific aspect of the problem or system will be the focus? Think through each of the following considerations when describing your project:*

- *The social or structural determinant(s) of health that will be addressed*
- *How this project may impact existing inequities?*
- *Which aspects of the existing systems or processes will be improved?*
- *What are the scope and boundaries (e.g., geographic)?*
- *What specific populations and subpopulations experiencing the inequities will be the focus of the project?*

7. Team Members: *List the Leadership and Design Team members whose input and support this project will require.* Note that some members can serve on both teams.

Name	Affiliation	Core or Design Team	Expertise/Role

QI on the CHIP: NACCHO's Project Charter Template



How will you know that a change is an improvement?

8. Outcome Measures: *List the outcome measures that you ultimately want to affect as a result of this project.*

9. Aim Statement: *What short-term outcome, in measurable terms, are you hoping to accomplish? Specify how much, for whom, and by when.*

What changes can we make to improve?

10. Stakeholder Needs: *Who are the various stakeholders that could be impact by this project and what are their specific needs? These could include Team Members listed above, as well as others.*

Stakeholder	Needs

11. Drivers/Root Causes: *List what could be the root causes of the problem you are trying to solve through this project.*

12. Change Ideas: *What are potential change ideas that you might test to address the root causes and ultimately impact the outcome identified in your Aim statement?*

13. **Process Metrics**: *What process metrics will help to understand how well the change is being implemented and to what degree it is leading to a change in outcomes?*

14. **Balance Metrics:** *What balance metrics will help to understand whether the change is having unintended consequences in other parts of the system?*

- About Your Project

How will you know that a change is an improvement?

8. Outcome Measurement
9. Aim Statement

What changes can we make to improve?

10. Stakeholder Needs
11. Drivers/Root Causes
12. Change Ideas
13. Process Metrics
14. Balance Metrics (to measure possible unintended consequences)

Small Group Activity

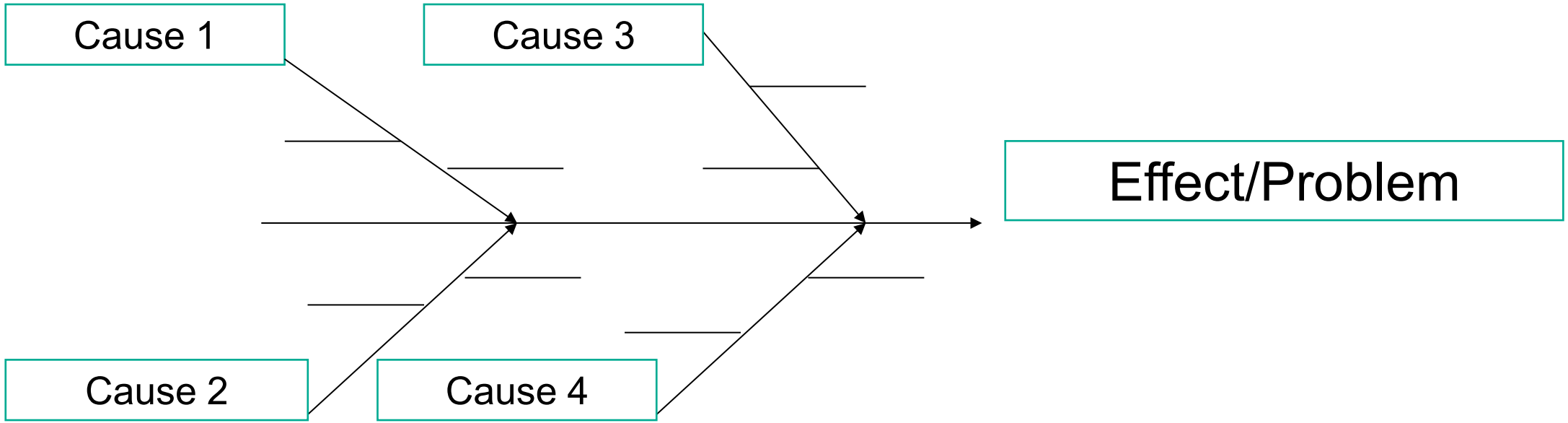
- Break out groups of 6-8
- Each group will address Food Insecurity as the problem
- Answer Qs 1-6, spending most time on 4-6. Assume you are from same community, contribute what you can.
- Think about how you can use this with your CHIP

Debrief

- **Group Report Out**
  - **How was this experience for you?**
  - **Could you see your health department using this tool?**
  - **Why or Why not?**

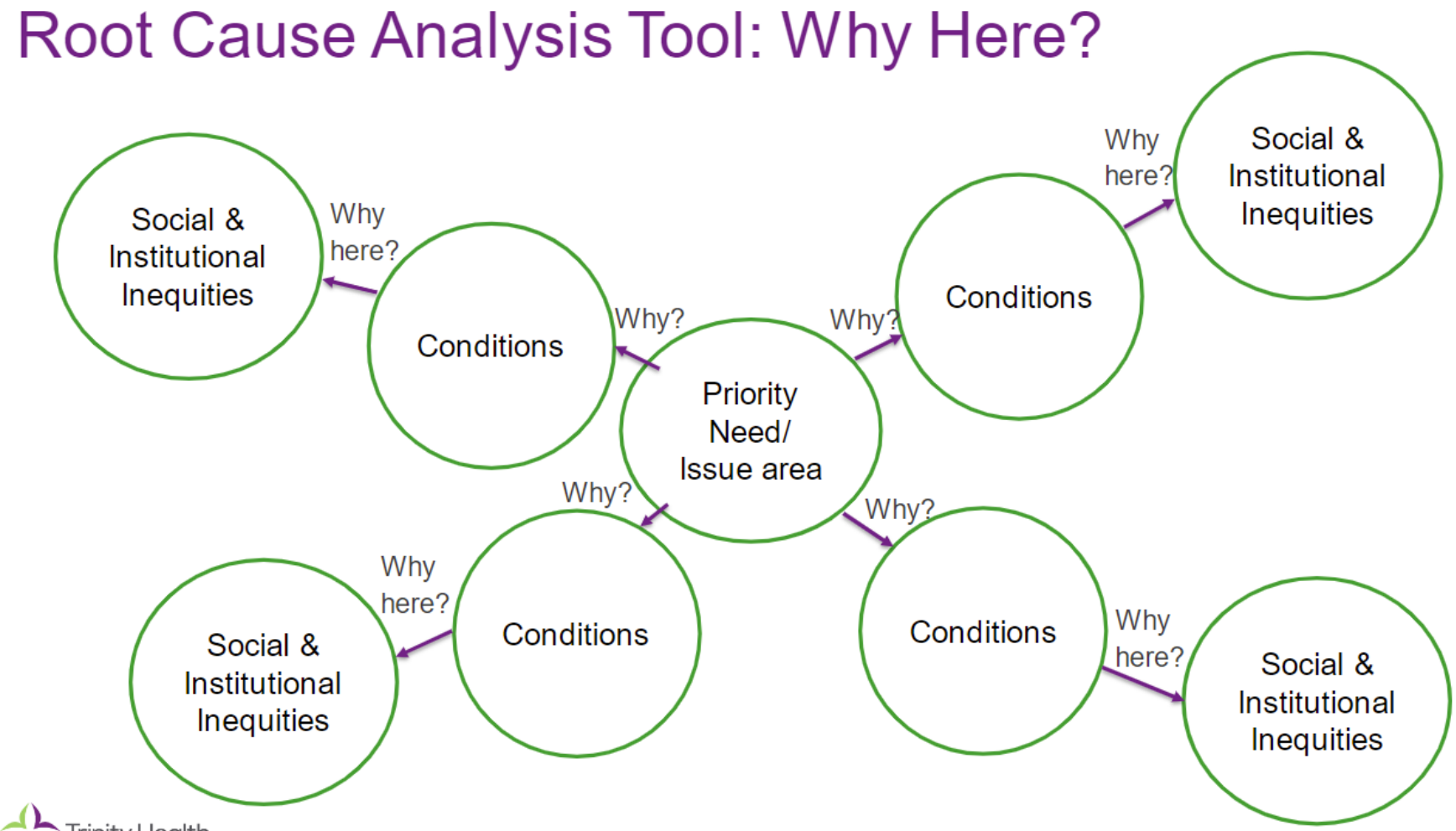
Fishbone Diagram

- Draw an arrow leading to a box that contains a statement of the problem
- Draw smaller arrows (bones) leading to the center line, and label these arrows with either major *causal categories* or *process categories*
- For each cause, identify deeper, root causes



Why? Why here?

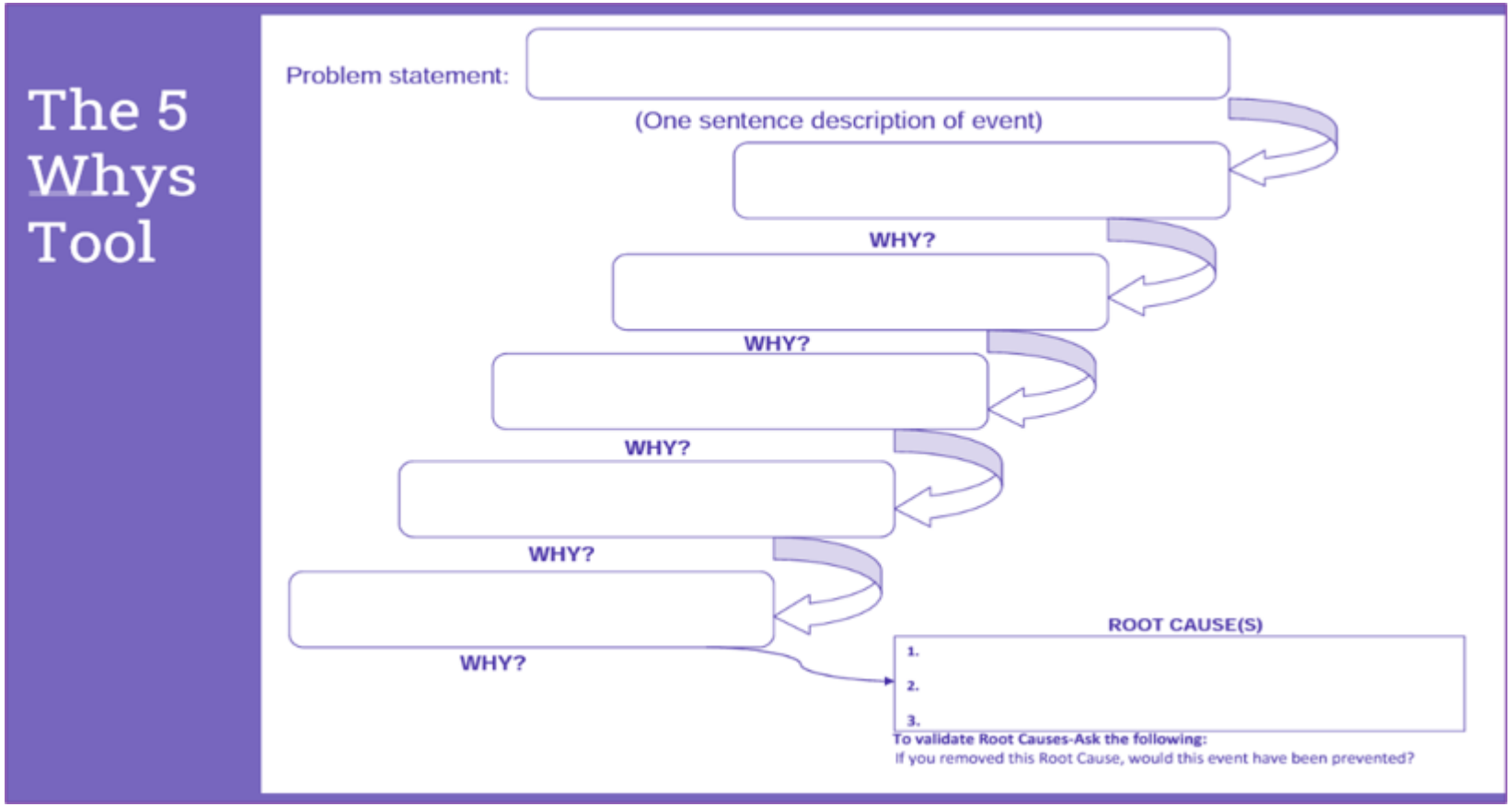
- Local context is important to understand root causes. Consider asking why and why here?
- This is similar to direct and indirect contributing factors.



Trinity Health

The 5 Whys

- Use the 5 whys to dig deeper to identify and understand the root causes



Process Improvement Towards Outcome Attainment

Process vs. Outcome

Process measures are about measuring what you, your staff, and partners do to implement a strategy or intervention.

- Are we doing things right?

Outcomes measure the impact or result of strategies and interventions.

- Are we doing the right things?

Choosing the Most Meaningful Process Measures

- Participation
- Satisfaction
- Content Planned vs. Delivered
- Cost
- Staffing
- Dissemination or Distribution Rates
- Level of Community Engagement
- What else?

What will tell you how well a system is functioning and following established guidelines? The measures should tell you "what is being done" to achieve a desired outcome.

Q&A Session

This series is made possible with funding from IDPH and the Community Health Assessment and Planning Grant, 2024

Thank you!

Evaluation:
https://survey.alchemer.com/s3/8105363/Quality-Improvement-Training-Evaluation

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Join us for the rest of our webinar series!

Register at:
bit.ly/m/IDPHIPLANwebinarseries

Group Technical Assistance sessions will be available for the following dates:

- December 4th 1-2pm (Q&A with IDPH Data Stewards)