

# Improving the Guam Department of Public Health and Social Services' (DPHSS') internal procurement processes through application of the Model for Improvement



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PIHOA 66<sup>th</sup> Board Meeting – Fall 2019

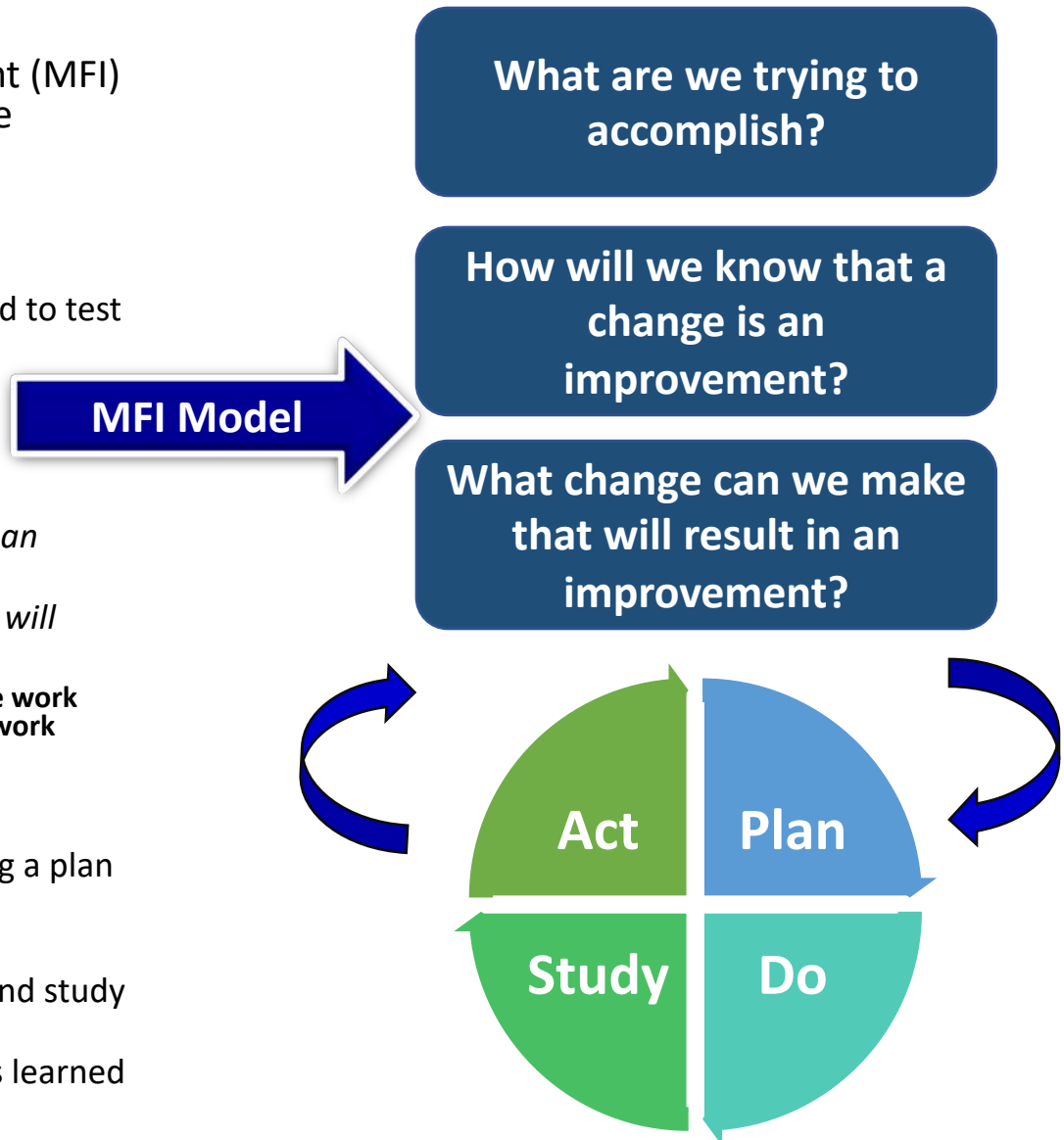
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Wednesday, November 20, 2019

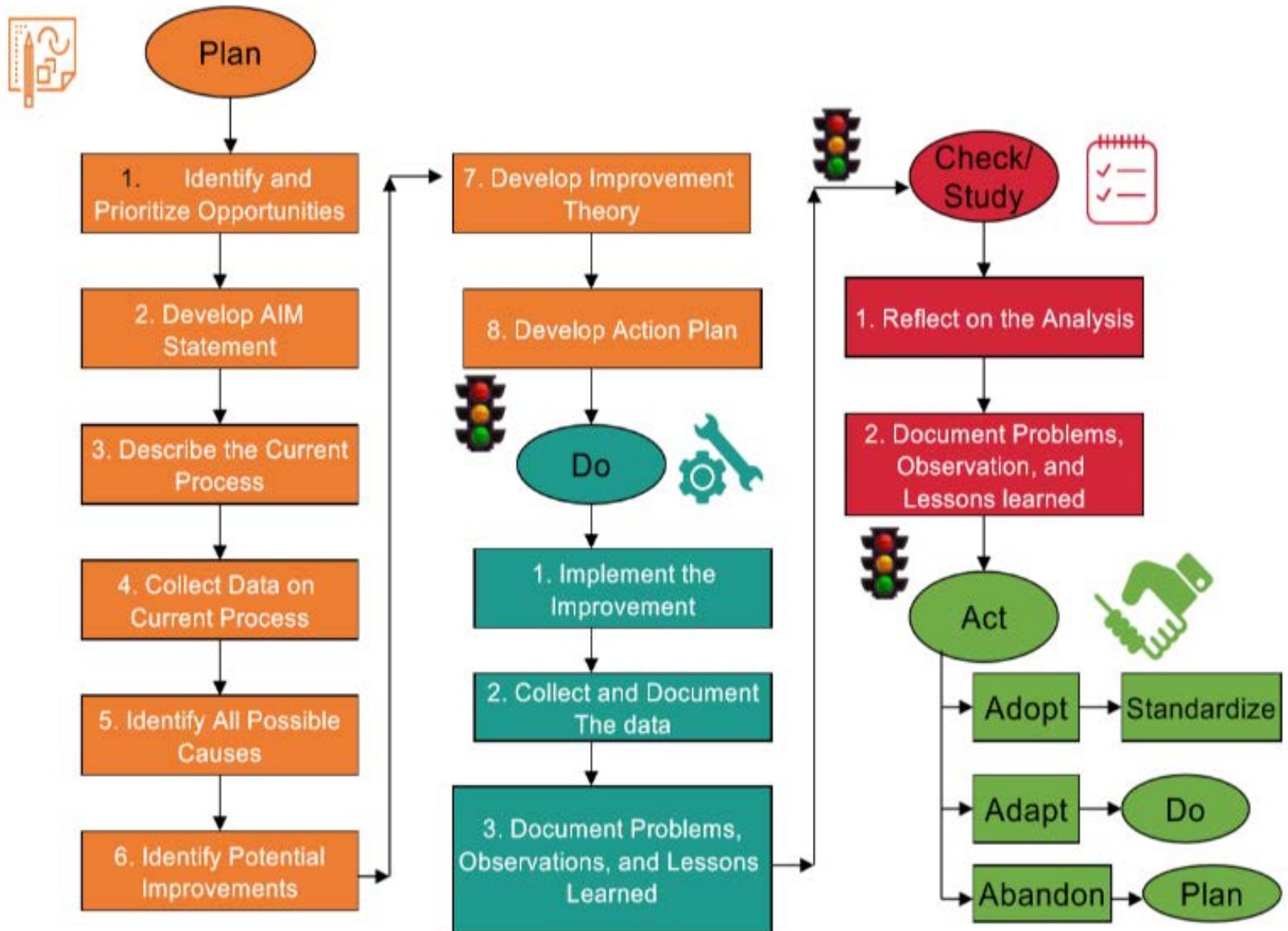


# Model for Improvement Refresher

- Developed by the Institute for Healthcare Improvement, the Model for Improvement (MFI) is a simple and powerful tool to accelerate improvement.
- The MFI is composed of two parts:
  - Three Fundamental Questions
  - The Plan-Do-Study-Act (PDSA) cycle, utilized to test changes and determine if the change is an improvement
- Three fundamental questions –
  - **Aim:** *What are we trying to accomplish?*
  - **Measures:** *How will we know an change is an improvement?*
  - **Changes:** *What changes can we make that will result in improvement?*
    - **Change Concepts:** Eliminate waste, improve work flows, focus on error proofing, change the work environment, etc.
- PDSA Cycle(s) –
  - **Plan:** Plan the test or observation, including a plan to collect data
  - **Do:** Try out the test on a small scale
  - **Study:** Set aside time to analyze the data and study the results
  - **Act:** Refine the change, based on what was learned from the test



# PDSA Process in Totality





# Applying the MFI to the Guam DPHSS' Procurement QI Project: Quality Improvement Training with the Public Health Foundation

## August 8-9, 2019 at the Pacific Star Resort and Spa Hotel



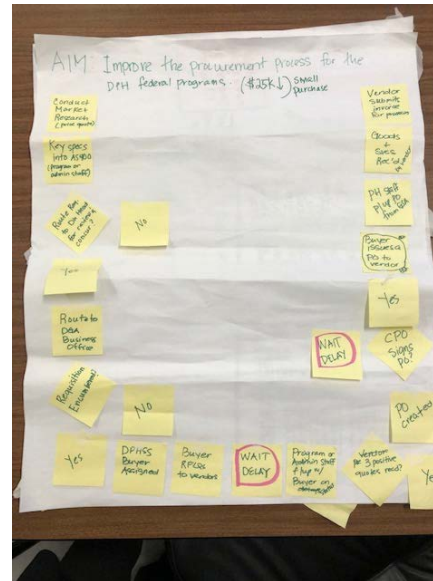
## Applying the MFI to the Guam DPHSS' Procurement QI Project: Quality Improvement Training with the Public Health Foundation

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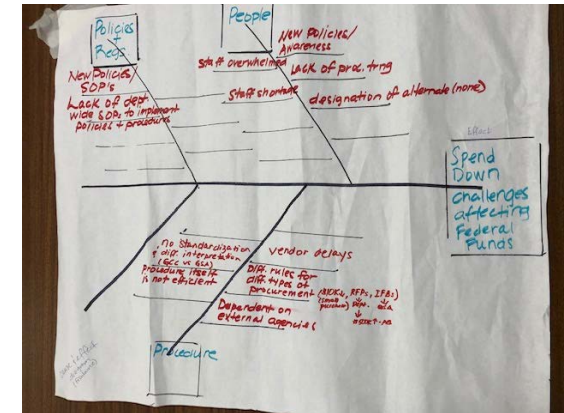
## QI Tools & Resources



## Process Map



## Cause & Effect Diagram



## Proposed Interventions

- ## 1. Identify and Prioritize Opportunities

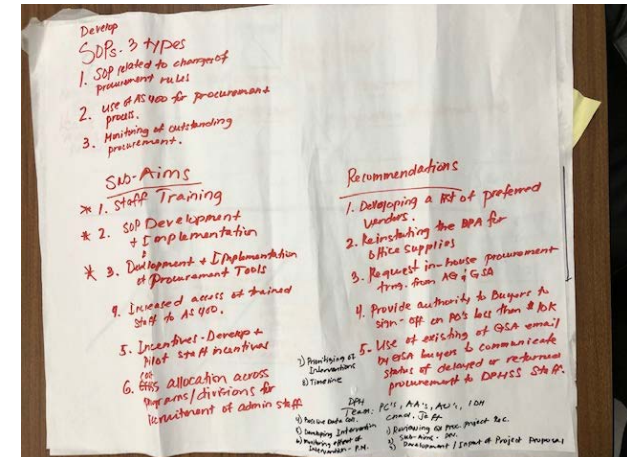
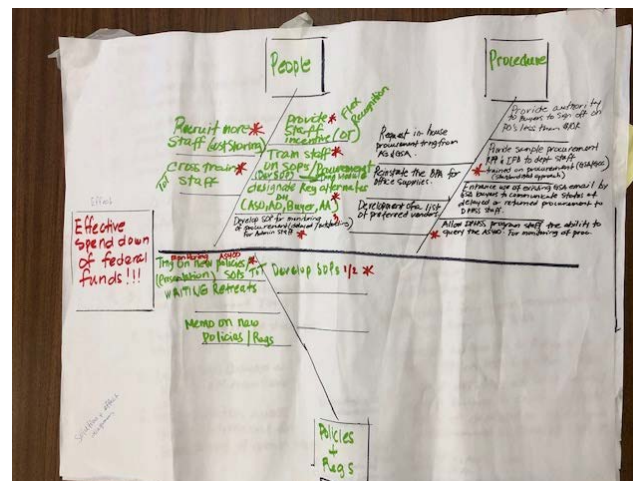
- ## 2. Develop Aim Statement

- ### 3. Describe the Current Process

- ## 5. Identify All Possible Causes

- ## 6. Identify Potential Improvements

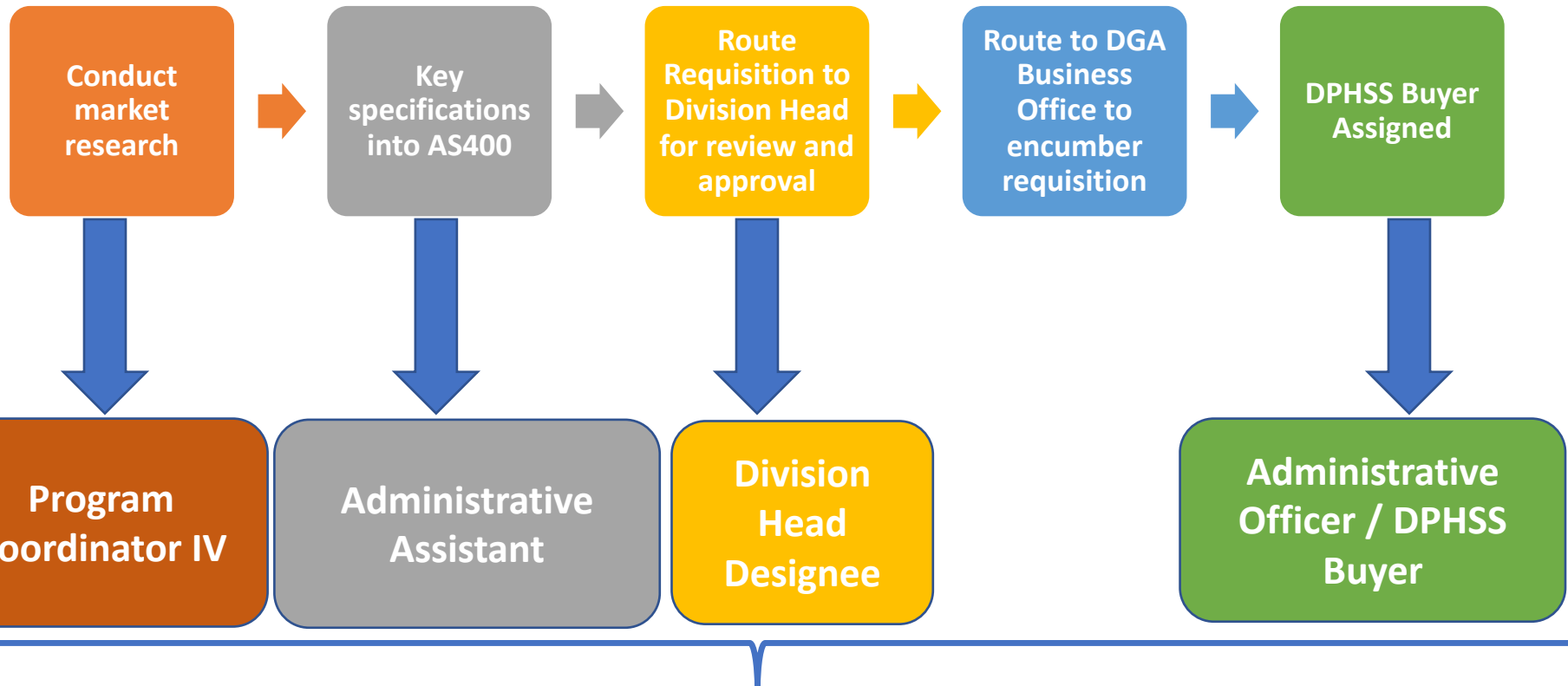
## Solution & Effect Diagram



# Applying the MFI to the Guam DPHSS' Procurement QI Project: Forming the Procurement QI Project Team

1. Identify and  
Prioritize  
Opportunities

Process Steps in Guam DPHSS Procurement Process for Small Requisitions under \$10K



Staff Roles of Members of Procurement QI Project Team



# Applying the MFI to the Guam DPHSS' Procurement QI Project: Identifying Opportunities for Improvement and Developing an Aim Statement

1. Identify and  
Prioritize  
Opportunities

2. Develop Aim  
Statement

## AIM or Opportunity Statement Template

**An opportunity exists to** improve the internal process for selected DPH federally funded programs.

*(name, process, or area to work on)*

**Beginning with**

October 1, 2019

*(beginning boundary, starting point)*

**and ending with**

September 30, 2020

*(ending boundary, finish point)*

**This effort should improve** the department's ability to effectively manage their grants and spend down their funds in a timely manner.

*(key characteristics of area the team is working on)*

**For the** selected DPH federally funded programs (ELC, PHEP, Diabetes, & Immunization)

*(customers, staff or those affected by the process under improvement)*

**This process is important to work on now because** the department continues to return federal funds. Insufficient spenddown of funds from all sources can result in reduced funding opportunities in the future, which significantly impacts a health department's ability to provide essential public health services.

*(what will it improve and for whom?)*

**The Baseline metric is defined as the following:** Increase spending by 10% over Fiscal Year 2018 levels by the end of FY2020 on September 30, 2020 in the 4 targeted programs.

*(Indicate the metric's starting point—current state)*

# Applying the MFI to the Guam DPHSS' Procurement QI Project: Identifying Opportunities for Improvement and Developing an Aim Statement (cont.)

1. Identify and  
Prioritize  
Opportunities

2. Develop Aim  
Statement

**An opportunity exists** to improve expenditure of the “Other Object Category”(OOC) funds (*excluding personnel, fringe, and indirect cost budget categories*) for four CDC-federally funded programs within the Guam DPHSS' Division of Public Health (DPH): Diabetes & Tobacco, Epidemiology and Laboratory Capacity Building (ELC), Public Health Emergency Preparedness (PHEP), and the Immunization programs.

**In FY 2018** these four programs were awarded **\$1,469,185** in “Other Object Category” (*excluding personnel, fringe, and indirect cost budget categories*) funds to support program goals. Of that amount, **\$1,183,983** were spent, and \$285,202 (**19.4%**) of awarded OOC funds were returned to the federal government, across all four programs.

**Our overarching aim** is to improve the expenditure of the OOC funds in the four target programs by **10%** by the end of FY2020; in FY2020, the four targeted programs received a total of **\$838,708** in OOC funds. Applying the improvement aim of 10% in increased spending to the total awarded amount (compared to FY2018) would result in an estimated returned amount of **\$78,839** by the end of FY2020.

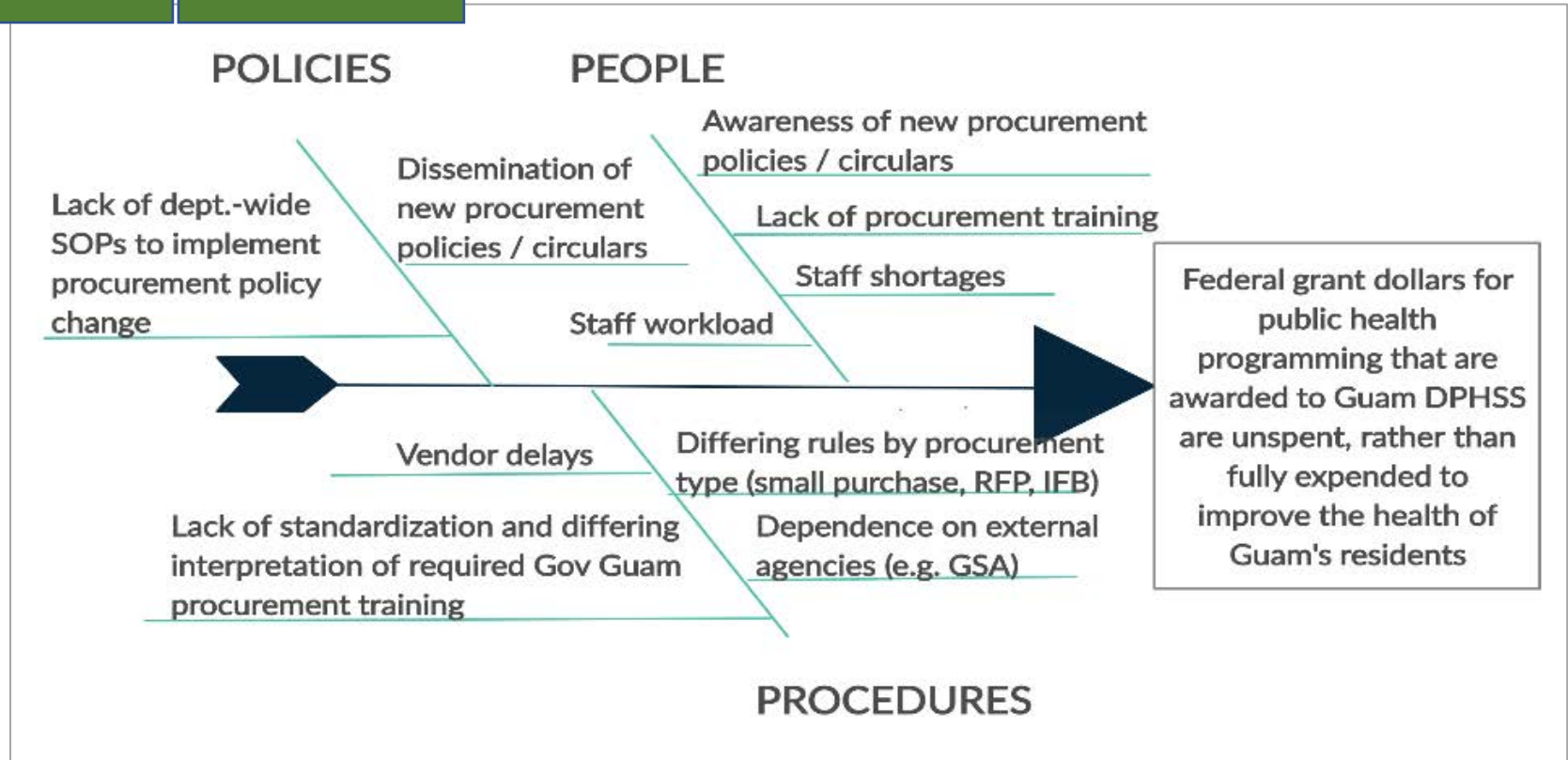
This project seeks to improve the procurement processes to assure that awarded funds are utilized as planned to improve the health of residents of Guam.



# Applying the MFI to the Guam DPHSS' Procurement QI Project: Utilizing a Cause and Effect Diagram to Describe the Current Guam DPHSS Procurement Process' Challenges

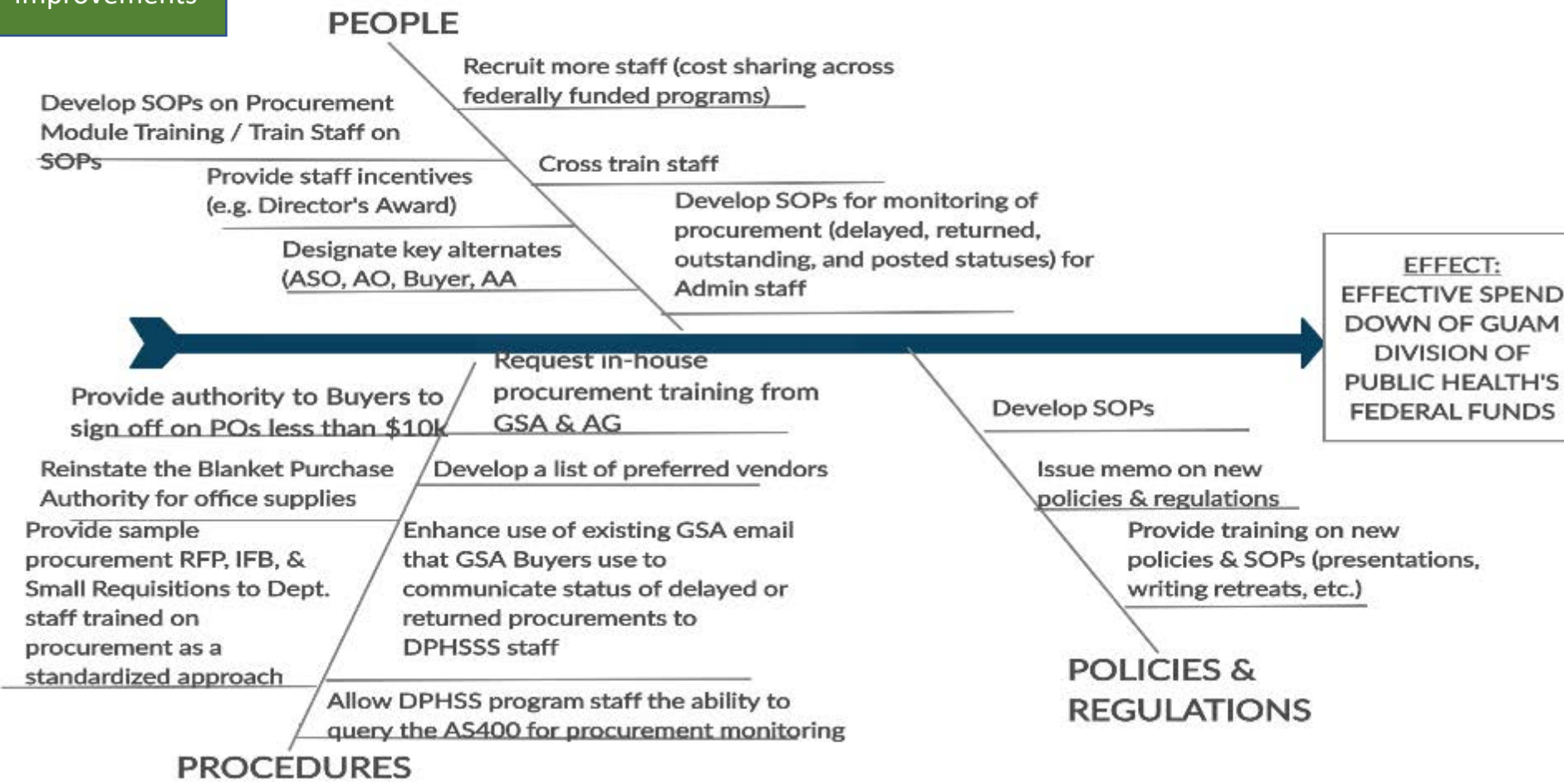
3. Describe the Current Process

5. Identify All Possible Causes



# Applying the MFI to the Guam DPHSS' Procurement QI Project: Utilizing a Solution and Effect Diagram to Identify Potential Improvements to the Current Guam DPHSS Procurement Process

6. Identify Potential Improvements



# Applying the MFI to the Guam DPHSS' Procurement QI Project: Development of Baseline Measures

## 4. Collect Data on Current Process

### Baseline Measures:

- To **reduce** the percent (by month) of requisitions returned by ASO or DPHSS Buyer due to staff error across all 4 DPH programs (compared to the FY18 average monthly return rate)
- To **decrease** the average number of days for processing of purchase orders less than \$10,000 across all 4 DPH programs (compared to the FY18 average number of days)
- To **increase** the number of staff trained on the procurement process across all 4 DPH programs (as compared to the number of staff trained across all 4 DPH programs in FY18)

# Applying the MFI to the Guam DPHSS' Procurement QI Project: Overall Aim's Baseline Data Analysis

## 4. Collect Data on Current Process

### Estimated Improvement in Unspent Funds across all 4 programs from FY2018 to FY2020

Fiscal Year	Total Awarded Other Object Categories	Total Returned/Unspent	Percent Returned of Total Awarded
FY 2018	\$ 1,469,185	\$ 285,202	19%
<b><i>FY 2020 Goal</i></b>	\$ 838,708	\$ <b>(Estimated)</b> 78,839	<b>(Estimated)</b> 9%
<b>10% reduction in the percent of returned funds.</b>			<b>10%</b>

The overarching aim is to improve expenditure of “other object category” funds in the four targeted programs by 10% by the end of FY20, which would result in a reduction of the returned/unspent amount to an estimated figure of \$78,839.



# Applying the MFI to the Guam DPHSS' Procurement QI Project: Development of Improvement Theories / Change Ideas

## 7. Develop Improvement Theory



Development of procurement SOPs, reflecting latest Gov. Guam procurement policy updates

**December 2019 -  
January 2020**



Development of a yearly procurement planning tool

**March 2020**



Development of sample procurement packages/job aids and preparation checklists for small requisitions, RFPs, IFBs

**December 2019 –  
January 2020**



Training on the electronic AS400 database for procurement entry and monitoring

**April-May 2020**



Training of DPH staff on the execution of the procurement process, in accordance with internal DPH best practices

**February 2020**



Development of a staff incentive package

**August-September 2020**

# Applying the MFI to the Guam DPHSS' Procurement QI Project: Prioritization of Improvement Theories / Change Ideas

## 7. Develop Action Plan

### Deployment of the Problem Selection Grid/Group Consensus

Problem/ Project: Improvement Theory	Importance (High, Medium, Low)  [Assign one value to each of the sub-aims below]	Impact (High, Medium, Low)  [Assign one value to each of the sub-aims below]	Control or Influence  [Assign one value to each of the sub-aims below]	Improvement or Opportunity Ranking  1= Highest Priority 2= Moderate Priority 3= Low Priority
Procurement Tools (1 <sup>st</sup> priority- shares team with SOP)	High	High	Control	1
SOP Development and Implementation (1 <sup>st</sup> priority- shares team with Procurement Tools)	High	High	Control	1
Staff Training (1 <sup>st</sup> priority- separate team)	High	High	Control	1
Development and follow through of a Procurement Plan (2 <sup>nd</sup> priority)	High	High	Control	1
AS400 Staff Training (3 <sup>rd</sup> priority)	High	High	Influence	1
Staff Incentives (4 <sup>th</sup> priority)	Low	Low	Control	3

## 7. Develop Action Plan

[illegible]

## 7. Develop Action Plan

# Applying the MFI to the Guam DPHSS' Procurement QI Project: Development of the Project Action Plan Using a PDSA Worksheet (Staff Training Example)

## PDSA worksheet

plan - do - study - act - plan - do - study - act - plan - do - study - act

**Background:** What led you to start this project? Is this cycle a continuation of another cycle? Include any baseline data that has already been collected.

### Plan

**Aim/Objective Statement for this cycle:** What do you hope to learn? What are you trying to improve (aim), by how much (goal) and by when (timeframe)?

Train/retrain staff on how to process an EOA, budget current allotment, and how to process the different types of req. (improve/progress).

**Specific questions to address in this cycle:**

1. How to complete the establishment of account form and budget allotment schedule
2. Process of #1 (Process & Flow)

3. How to process the different types of requisitions (RFQ, IFB, small purchases, sole source)

**Predictions/Hypotheses** (What do you think will happen?)

Less errors, less returned req., cross training, speed of processing (Program Manager will no longer have to wait for the administrative support staff).

**Plan for change/test/intervention:**

**Who (target population):** Administrative Assistant, Administrative Officer, Program Coordinator

**What (change/test):** Development and implementation of training modules aligned with the following: establishment of account form and budget allotment schedule, processing of the different types of requisitions (RFQ, IFB, small purchase, sole source)

**When (dates of test):** 2 days (consecutive) for training starting February 2020. A post-training survey will be conducted 3 months after training to assess retention of post training knowledge.

**Where (location):** Guam DPHS Mangilao Campus Room #105

**How (description of plan):** Program Coordinator IV/DSC-RFP/Sole Source; Administrative Officer/DEH; - Small Requisitions; Administrative Services Officer/DGA Blanket Purchase Agreements; Administrative Officers – Standard Operating Procedures using DOA & GSA examples.

**Measures** (What will you measure in order to meet your aims? How will know that a change is an improvement? Will you use outcome or process measures?)

## PDSA worksheet

plan - do - study - act - plan - do - study - act - plan - do - study - act

To increase the number of staff trained on the procurement process (as defined by receiving training in the 3 modules; process of establishing accounts and creating budget allotments; processing of the 3 primary types of requisitions (RFP, IFB, & Small Requisitions)) from x number of staff in FY18 to x number of staff in FY20 by May 31, 2020.

**Plan for data collection:**

**Who (will collect):** Training Sub-Team of the larger QI Procurement Project Team.

**What (measures):** To increase the number of staff trained on the procurement process (as defined by receiving training in the 3 modules; process of establishing accounts and creating budget allotments; processing of the 3 primary types of requisitions (RFP, IFB, & Small Requisitions)) from x number of staff in FY18 to x number of staff in FY20 by May 31, 2020.

**When (time period):** February and May 2020

**Where (location):**

**How (method):**

Knowledge, Attitudes, and Practices (KAP) survey will be administered as a pre and post test before and after the conclusion of the training. Results will be followed with a second administration three months after the conclusion of the training.



# Guam DPHSS QI Procurement Project in Summary

## Procurement Improvement QI Project

### Implement Six Interventions over time

Development of procurement SOPs, reflecting latest Gov. Guam procurement policy updates

Development of sample procurement packages / job aids and preparation checklists for small requisitions, RFPs, IFBs

Training of DPH staff on the execution of the procurement process, in accordance with internal DPH best practices

Training on the electronic AS400 system, for procurement entry and monitoring

Development of a staff incentive package

Development of a yearly procurement planning tool

### So that we

**Reduce** the percent (by month) of requisitions returned

**Decrease** the average number of days for processing of purchase orders less than \$10,000

**Increase** the number of staff trained on the procurement process across all 4 DPH programs

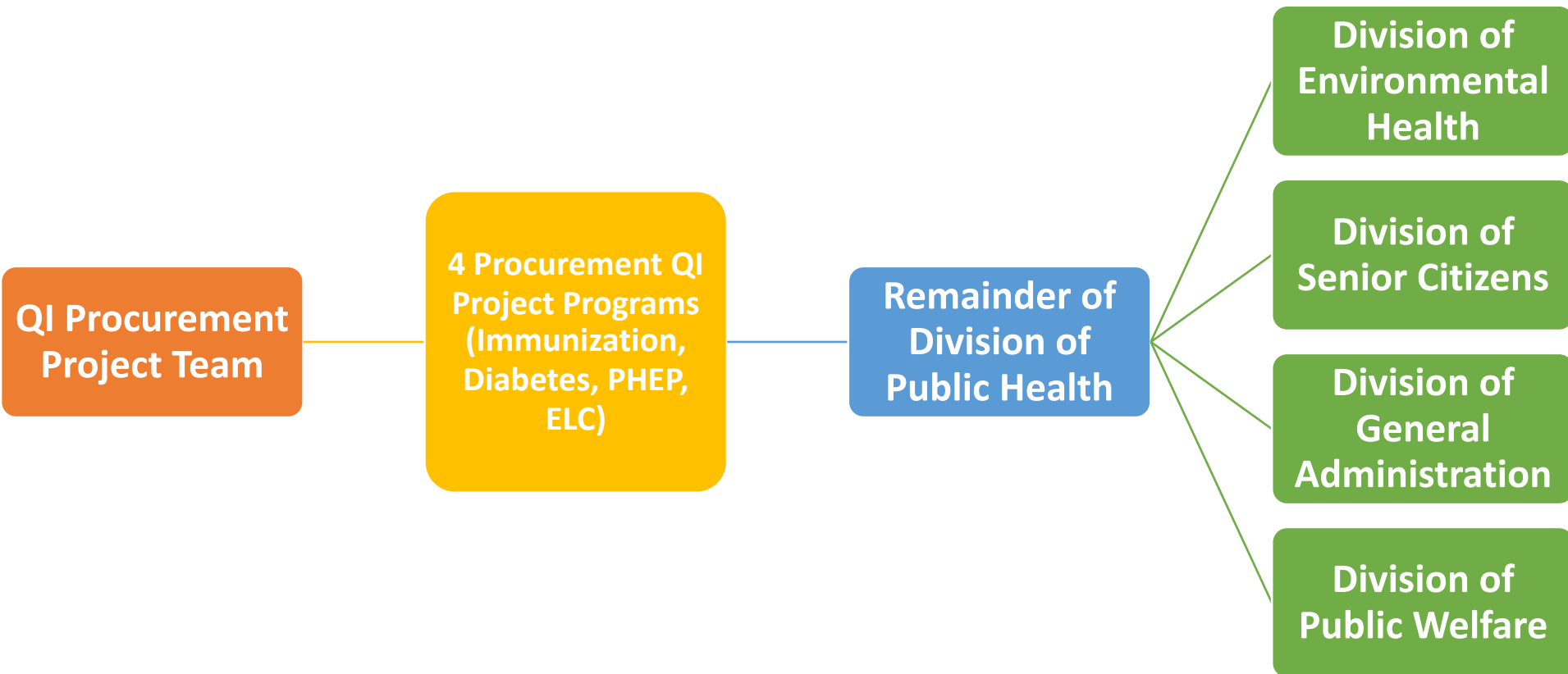
*These measures will be tracked monthly throughout FY2020 and compared with FY 2018*

### To achieve our aim

Ensure that awarded funds are utilized as planned to improve health of residents of Guam.

*Should result in successfully decreasing returned funds across all 4 DPH programs in FY2020 to \$78,839 (10% improvement in % of returned funds, as compared to FY2018).*

# Guam DPHSS Procurement QI Project Organizational Longitudinal Effect(s): Diffusion of QI Processes throughout the Department of Public Health and Social Services



# Guam DPHSS Procurement QI Project Success Factors



**Sonja Armbruster, Public Health Foundation  
Performance Improvement Consultant**

- Delivery of initial Quality Improvement training in August 2019; and provision of coaching and mentoring to the Procurement QI Project Coordinator, Bertha Taijeron



**Samuel Aptekar, CDC Public Health Associate  
(PHAP) assigned to the Guam DPHSS  
Performance Improvement Management Office**

- Key member of the Guam DPHSS Procurement QI Project team; provision of support to the QI Project's sub-teams in development of their actions plans

# Thank you to the following who provided support to this QI Project:

- Robert Greathouse, Regional Public Health Advisor
- Linda Unpingco DeNorcey, DPHSS Director
- QI Procurement Team Members
- PIHOA
- Public Health Foundation
- CDC

**Any questions?**