



**RQITA**  
RESOURCE CENTER

# Quality Improvement Workbook

A one-stop resource for interactive  
quality improvement activities and  
worksheets.

## About Us

Telligen serves as the Rural Quality Improvement Technical Assistance (RQITA) Resource Center contractor for Health Resources & Services Administration (HRSA) under the Federal Office of Rural Health and Policy (FORHP). The RQITA Resource Center provides technical assistance for the Medicare Beneficiary Quality Improvement Project (MBQIP) which services Critical Access Hospitals (CAH) under the Medicare Rural Hospital Flexibility Program (Flex) and the Small Health Care Provider Quality Improvement Grantees (SHCPQI).

## Enhanced One-on-One Technical Assistance

Telligen is proud to provide enhanced technical assistance to its partners. Technical assistance is the process of providing targeted, one-on-one support to increase capacity for quality improvement and to improve processes based on an organization's goals. The Telligen RQITA Resource Center team offers enhanced technical assistance such as assistance with data reporting data analysis and a variety of quality improvement tools to support the development of evidence-based evaluation practices and more.

## Using This Workbook

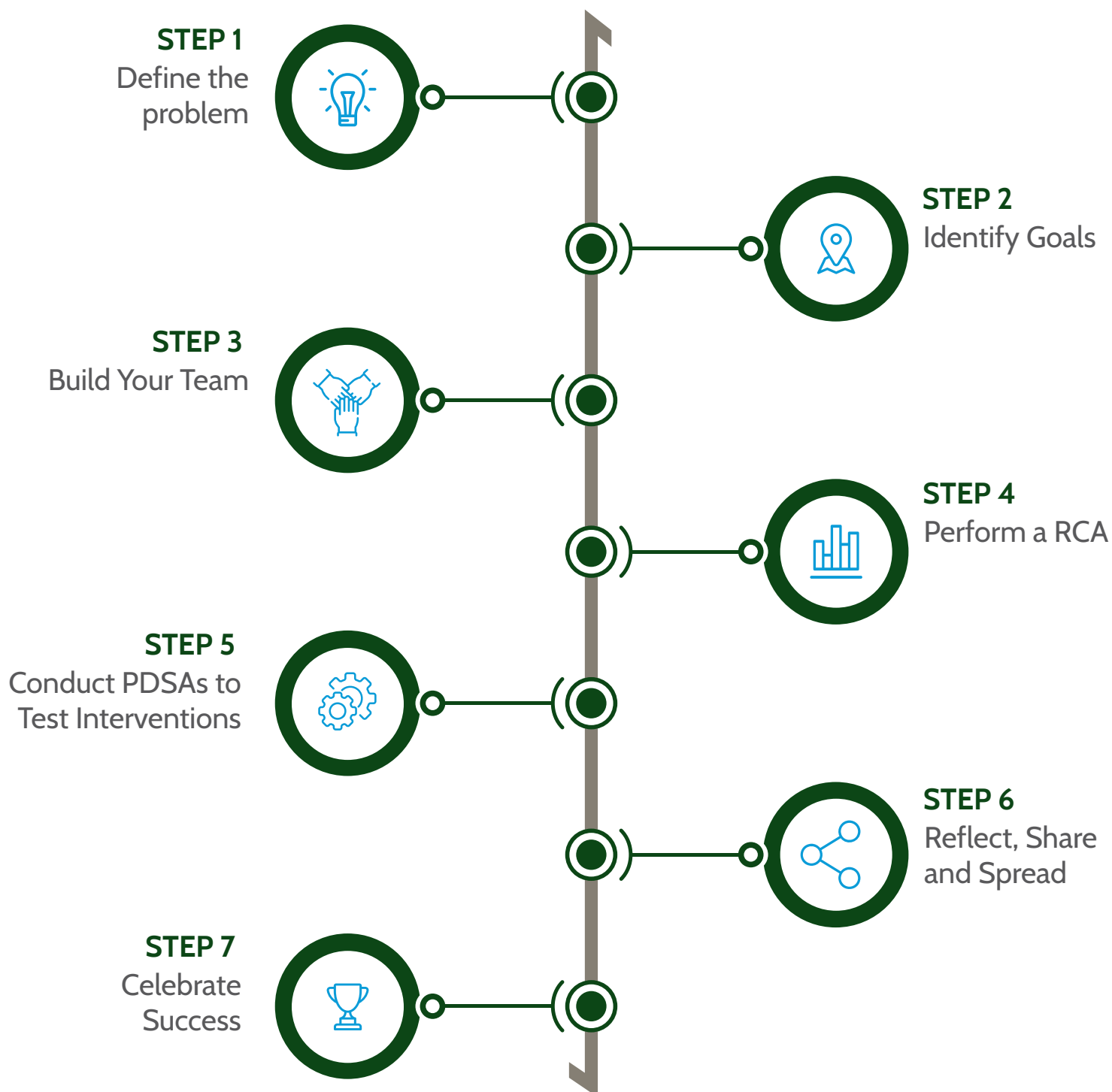
In this workbook you will find valuable resources to support your team's quality improvement efforts. We have created a timeline to follow and ways to track progress during your organization's quality improvement journey. For more information or assistance, contact your [State Flex Program](#) or the [RQITA Resource Center team](#).

### Interactive Worksheets Included in this Workbook

<a href="#">Five Whys Worksheet</a>	The Five Whys is a simple problem-solving technique that helps to get to the root of a problem quickly.
<a href="#">Root Cause Analysis (RCA) Pathway</a>	This interactive step-by-step guide is used for completing a root cause analysis.
<a href="#">Fishbone Diagram Worksheet</a>	The fishbone diagram is a tool to help the root cause analysis team identify the causes and effects of an event and get to the root cause.
<a href="#">PDSA Worksheet</a>	This worksheet will guide you through the steps to conduct a Plan-Do-Study-Act (PDSA) process or cycle.
<a href="#">Sustainability Decision Guide</a>	This is a resource to help leaders or teams determine if the interventions and changes they are making are sustainable.
<a href="#">PIP Documentation</a>	This tool is for documenting and summarizing Performance Improvement Project (PIP) activities.
<a href="#">Community Coalition Charter</a>	The Community Coalition Charter helps coalitions to outline their motivating vision, shared purpose, members, meeting norms, schedule, etc.
<a href="#">Team Charter</a>	A project charter clearly establishes the goals, scope, timing, milestones and team roles and responsibilities for a PIP.

## Step-by-Step Path to Quality Improvement

The graphic below demonstrates an overview of the quality improvement process. Click on any of the steps displayed to jump to the supporting section in this document.



## Define the Problem

- Review relevant data (e.g., [County Health Rankings](#), [ICD-10 Z Codes](#), [Care Compare](#), [Hospital Compare](#)), internal hospital level data, and reports from the Flex Monitoring Team (FMT), such as [State Profiles](#), the Critical Access Hospital Measurement and Performance Assessment System ([CAHMPAS](#)), quarterly [MBQIP Reports](#), and [FMT Publications](#).
- Review topic-specific self-assessment responses.
- Assess the current state by completing a provider, community or topic assessment.
- Write out a problem statement that captures insights gained from data review.

## Identify Goals

- Set goals that clearly answer the question, “*What do you want to accomplish?*”
- Well-written goals should also be S.M.A.R.T.I.E.:
  - S – Specific
  - M – Measurable
  - A – Achievable
  - R – Realistic
  - T – Time-based
  - I – Inclusive
  - E – Equitable



*Not sure about creating your goal? No problem! You can use our fill-in-the-blank template to create your own [quality improvement \(QI\) goal statement](#).*

## Build Your Team

An individual organization or community coalition’s local leadership is encouraged to create an improvement team. Your improvement team will most likely consist of a diverse group of individuals who may be involved in organizational decision-making or provide direct care. Team members might include healthcare professionals, physicians, first responders, administrators, behavioral health clinicians, patients and family members, non-profits, treatment centers, community-based organizations, law enforcement, payers, school personnel, political representatives and pertinent community members and other relevant stakeholders who are currently involved in projects that focus on your quality improvement topic.

- Identify map of actors and subject matter experts. Ask yourself, *who has a stake in the results of this project* (e.g., pharmacists, nurses, etc.)?
- When selecting improvement team members, include those who are closest to the problem, know the process well, have necessary resources (knowledge, skills, professional network) and can help influence and motivate others in the coalition and their organization to participate in change efforts.
- Utilize PIP Documentation Landscape, Community Coalition, Team or Project Charter.
- Write out a compelling purpose (clear, challenging, consequential). Ask yourself, *what does the team need to accomplish?*

## Perform a Root Cause Analysis

- Perform a root cause analysis (RCA) of the problem. Select a template: Five Whys or Fishbone diagram.
- Consider barriers to improvement: [patient population disparities](#), [geographical barriers](#), social determinants of health (SDOH), staffing and infrastructure challenges.

## Conduct PDSAs to Test Interventions

### PLAN: Develop an Action Plan

Once you have determined root cause(s) and selected the interventions to address the root causes, you are ready to work through the work Plan-Do-Study-Act to test the change idea. Design, develop and implement a process for accomplishing and evaluating the change (e.g., determine who, what, where, when) and determine a plan for collecting data.

Follow the Institute for Healthcare Improvement's (IHI) [Model for Improvement](#) to develop a process improvement plan by answering the following questions:

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?

**Select a promising practice (intervention) for implementation** that aligns with the organization and/or community's goals and the overall targets. Prioritize these interventions and tactics as determined by your organization and/or community's needs.

Next, identify the following for each selected change concept and tactic:

1. What action or change will occur?
2. Who will carry it out?
3. When will it take place, and for how long?
4. What resources (e.g., money, staff) are needed to carry out the change?
5. How and to whom will we communicate the change?

### Establish a measurement strategy.

- Ask yourself, how will we know a change is an improvement?
- Determine the types of data sources that already exist in your facility.
- Evaluate potential data sources for tracking your intervention. Examples include: EHR reports, physical checklists, risk management reports.
- Determine data collection method, frequency and responsible team member(s).

### DO: Implement Intervention

#### Implement the Change

The implementation strategy identifies how the change will be accomplished and includes tactics for how it will be communicated, implemented and evaluated. Planning through the change will help coordinate the team's activity. A common tool for documentation of your implementation strategy is a PDSA Template.

Once you have selected a change idea to implement and have developed a timeline, work through the Plan-Do-Study-Act to test the change idea.

- Try out the test on a small scale (during one shift, for a select group of patients/residents, over the course of one week, etc.).
- Address challenges or barriers that might impede the success of the change.
- Continue using PDSA cycles for the prioritized list of tactics until the coalition's goals are met.

## STUDY

- Evaluate the nature and quality of the change using acquired data.
- Analyze and study the results.

### Analyze Results

- Review your data
- Baseline measure rate:
- Improvement target rate:

## ACT

### Analyze, Adopt or Abandon

Before implementing each change process, consider whether it may be appropriate to test it on a small scale. Testing change ideas on a small scale helps establish what the likely outcomes will be before subjecting the entire organization to a change that may not be effective. Some changes may not require testing (i.e., reviewing policies and procedures); other change ideas (i.e., implementing electronic charting, a new assessment form or a new communication process such as SBAR) can benefit greatly from a small-scale test of change. Evaluating the pilot test involves collecting data to check whether the implemented change has helped your coalition reach its goal and allows your team to organize observations that have been made throughout the pilot test.

### Reflect, Share and Spread

Once changes have been tested and determined to be successful, it is time to share the innovation. This involves actively disseminating information about the interventions and best practices for implementation. This will require a plan that includes:




- Developing the scope of the spread
- Communication of the spread
- Evaluation and feedback for the spread
- Monitoring to ensure sustainment of change

### Celebrate Success



Take time to celebrate success with the quality improvement team, those involved with implementing the change ideas and your constituents. Acknowledgment and recognition of staff can help increase engagement and a sense of ownership in the work.

## Develop Your Own Quality Improvement Goal Statement



Use the following template to create your own statement for your quality improvement project.

By  , the  at  will

*Calendar Date* *Team/Department* *Organization*

implement  to improve 

*Intervention* *Problem/Issue*

by  to benefit  .

*How Much* *Whom*



Now that your goal statement has been developed, use the worksheets included in the remainder of this workbook to complete your quality improvement project. For additional tools and resources, visit the [RQITA Resource Center](#) or [contact us](#).

Please note: Some of the following resources are developed for print or screen use. If there is an optimal method for use, the resource will display one of the following:



This resource was  
designed for print



This resource was  
designed for screen



## Five Whys Worksheet

Accurately state the problem. (5 Whys is used in trouble shooting, quality improvement and problem solving. It is best suited for simple or moderately complex problems.)

<b>PROBLEM:</b>		
<b>REASON #1</b>	<b>REASON #2</b>	<b>REASON #3</b>
↓	↓	↓
<b>WHY?</b>	<b>WHY?</b>	<b>WHY?</b>
↓	↓	↓
<b>WHY?</b>	<b>WHY?</b>	<b>WHY?</b>
↓	↓	↓
<b>WHY?</b>	<b>WHY?</b>	<b>WHY?</b>
↓	↓	↓
<b>WHY?</b>	<b>WHY?</b>	<b>WHY?</b>

Why is this happening? Enter all the reasons why. You may need more boxes. For each reason, begin asking **WHY**.

*This resource is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) as part of an award totaling \$640,000 with 0% financed with non-governmental sources. The contents are those of the author(s) and do not necessarily represent the official view of, nor an endorsement, by HRSA, HHS or the U.S. Government. For more information, please visit [HRSA.gov](https://www.hrsa.gov).*







## Root Cause Analysis Tool Selection Guide

Root cause analysis is a structured team process that assists in identifying underlying factors or causes of an event, such as an adverse event or near miss. Understanding the contributing factors or causes of a system failure can help develop actions that sustain corrections by including team members who have personal knowledge of the processes and systems involved in the problem or event to be investigated.

### Affinity Group

Affinity Grouping is a brainstorming method in which participants organize ideas into common grouping and identify common themes using multi-voting and cards, flip charts, whiteboards and/or post it notes. Groups may be required to meet more than once and take more than one day to complete brainstorming.

### 5 Whys

The Five (5) Whys is a simple problem-solving technique that helps to get to the root of a problem quickly. The Five Whys strategy involves looking at any problem and drilling it down by asking: "Why?" or "What caused this problem?" While you want clear and concise answers, you want to avoid answers that are too simple and overlook important details.

### Fishbone

A cause-and-effect diagram, often called a "fishbone" diagram, can help in brainstorming to identify possible causes of a problem and in sorting ideas into useful categories. A fishbone diagram is a visual way to look at cause and effect. It is a more structured approach than the Five (5) Whys tool. Groups may be required to meet more than once and take more than one day to complete the diagram.

If not Affinity Group, Use This Tool to Assist with Selecting Five (5) Whys or Fishbone

Has this problem or a similar problem occurred previously?	Select
Do you believe this is a complex problem?	Select
Have other attempts to solve the problem failed?	
Is input from others needed to uncover the root causes?	
Is this problem related to resident or staff safety?	

- **1 or 2, 'yes' responses, consider using Five (5) Whys**
- **3 to 5, 'yes' responses, consider using the Fishbone diagram**

## References

[Brainstorming, Affinity Grouping, and Multi-Voting Tool](#), [Five Whys Tool for Root Cause Analysis](#) and [How to Use the Fishbone Tool for Root Cause Analysis](#)

# Fishbone Diagram Worksheet

## Introduction

The fishbone diagram is a tool to help the RCA team identify the causes and effects of an event and get to the root cause. The problem or effect is identified at the head or mouth of the fish. Contributing causes are listed on the smaller “bones” under various cause categories. A fishbone diagram can be helpful in identifying all causes for a problem. The team looks at the categories and thinks of all the factors affecting the problem or event. Use the fishbone diagram to keep the team focused on the causes of the problem, rather than the symptoms or the solutions.

## How to Use

Use this worksheet to identify possible causes of a problem and to sort ideas into useful categories. The team should include members who have personal knowledge of the processes and systems involved in the problem or event being investigated and follow these steps:

1. Agree on the problem statement, also referred to as the effect. This is written at the mouth of the “fish”. Be as clear and specific as you can about defining the problem. Be aware of the tendency to define the problem in terms of a solution, e.g., We need more of something. The problem is what happened.
2. Agree on the major categories of causes of the problem, written as branches or “bones” from the main arrow. Major categories in health care settings often include: equipment/supply factors, environmental factors, rules/policy/procedure factors, and people/staff factors.
3. Brainstorm all the possible causes of the problem. Ask “Why does this happen?” As each idea is given, the facilitator writes on the fishbone diagram under the appropriate category. These are contributing or causal factors leading to the problem. Causes can be written in more than one place if they relate to several categories.
4. The team again asks “Why does this happen?” about each cause. Write sub-causes branching off the cause bones as they are identified.
5. The team continues to ask “Why?” and generate deeper levels of causes and organizes them under the related categories. This will help identify and then address root causes to prevent future problems.

## Tips

- Consider drawing your fishbone diagram on a flip chart or large dry erase board.
- Make sure to leave enough space between the major categories on the diagram so that you can add minor detailed causes later.
- When you are brainstorming causes, consider having team members write each cause they can identify on a sticky note and place it on the diagram. Continue going through the group, identifying more factors, until all ideas are exhausted. This encourages each team member to participate in the brainstorming activity and voice their opinions.
- Note that the “five-whys” technique is often used in conjunction with the fishbone diagram – keep asking “why?” until you get to the root cause.
- Another way to help identify the root causes from all the ideas generated is to consider a multi-voting technique. Have each team member identify the top three causes of the problem or event. Ask each team member to place three tally marks or colored sticky dots on the fishbone next to what they believe are the root causes that could be addressed.

(Write problem statement:)

### Environmental Factors

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### People/Staff Factors

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### Equipment/Supply Factors

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### Rules/Policy/Procedure Factors

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Facility name:

CMS Certification Number (CCN):



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# PDSA Worksheet

## Three Fundamental Questions for Improvement

1. What are we trying to accomplish (AIM/GOAL)?
2. What changes can we make that will lead to improvement (CHANGE)
3. How will we know that a change is an improvement (MEASURE)?

## Plan - Describe the Change (intervention) to be Implemented

What is your first (or next) test of change?	Test population?	Due Date
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List the tasks needed to set up this test of change:	Who is responsible?	Due Date
--	---------------------	----------

Predict what will happen when the test is carried out:	Measure to determine whether prediction succeeds:
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## Do - Implement the Change

Describe what happened when you conducted the test (e.g., what was done, what were the measured results, what were the observations).

## Study - Review and Reflect on Results of the Change

Describe how the measures results and observations compared with the predictions.

## Act - Determine the Action Needed Based on Results of the Change

Determine the steps (e.g., modify the idea and retest {Adapt}, spread the idea {Adopt}, test a new idea {Abandon this idea}).

## Performance Improvement Project (PIP) Documentation

Facility Name	State	CCN

### Team Charter

PIP Team Name	PIP Start Date

### PIP Team Project

Quality Measure (QM or Area of Focus)	Baseline Data (include time period)

### SMART (Specific, Measurable, Attainable, Relevant and Time-Bound) Goal

<b>Example: Reduce the long-stay quality measure rate for UTI from 4.2% to 2.5% (the national average on Care Compare) by December 31, 2025.</b>

### PIP Team Members

Identify team members to support the improvement project; select those who are closest to the area of focus identified.

Staff Name	Title
Leader:	

Executive Sponsor: (Name and Title)

## List of Root Causes

List top root causes in order of priority.


## Goal Monitoring

Use the table to routinely track outcomes measures to determine progress in reaching your goal.

Measure of Focus	1 <sup>st</sup> Measured Date	1 <sup>st</sup> Measured Rate	2 <sup>nd</sup> Monitoring Date	2 <sup>nd</sup> Measured Rate	3 <sup>rd</sup> Monitoring Date	3 <sup>rd</sup> Measured Rate
Measure of Focus	4 <sup>th</sup> Measured Date	4 <sup>th</sup> Measured Rate	5 <sup>th</sup> Monitoring Date	5 <sup>th</sup> Measured Rate	6 <sup>th</sup> Monitoring Date	6 <sup>th</sup> Measured Rate



## Interventions

The following are interventions to eliminate root causes and are used in PDSA process completion.

Selected Root Cause	Start Date	Selected Intervention	PDSA Cycle (1, 2 or 3)	Outcomes	Adapt, Adopt or Abandon

## Outcomes

Use the table below to document what has worked, what has not, or lessons learned.

Selected Intervention	Success Identified	Barriers Identified	Lessons Learned


## Sustainability

How are you going to sustain the improvements that were made? (Example: Update policies and procedures, educate staff, update onboarding process, identify a champion to monitor the data and interventions being carried out at routine intervals, etc.).

PIP Goal Met Date:	Sustainability Start Date:

## Resources

- [Five Whys Worksheet](#)
- [Root Cause Analysis \(RCA\) Pathway](#)
- [Fishbone Diagram Worksheet](#)
- [PDSA Template](#)
- [Sustainability Decision Guide](#)

# Team Charter



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Team Name: \_\_\_\_\_ Leader: \_\_\_\_\_ Date: \_\_\_\_\_

How will the success of this team impact the Problem to be solved? \_\_\_\_\_  
\_\_\_\_\_

What is the Objective or AIM of the Team? (There should be Measures of Success for each Objective)	Method of Measurement	Baseline	Target/ Goal RIR
Example: Reduce Antipsychotic Medication use by 10% by December 31, 2022	CASPER Report	20%	10%

What is the Scope of the project? \_\_\_\_\_

Who are the customers being impacted? Patients/Residents Family Staff Physicians Other \_\_\_\_\_

What Departments, Units or Sites in the organization will be impacted by the work of this team?

Department/Unit: \_\_\_\_\_ Sites: \_\_\_\_\_

Anticipated timeframe for completion: 30 Days 60 Days 3 months 6 months >6 months

**Team members by name or position: (Identify a project director, manager and team members involved in the process)**


## Barriers

What obstacles can impact the success of planning? (resources, money,)	What can you do about this?

Who is the Executive Sponsor? (Person outside of the team, who will monitor progress and can remove barriers to success) \_\_\_\_\_

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**Directions:** This is a resource to help leaders or teams determine if the interventions and changes they are making are sustainable. This guide will help identify why interventions may not be sustainable, and therefore need to be reconsidered. Use this guide at any point during a Performance Improvement Project (PIP), ideally when strategies have been found that appear to be successful and consideration is being given to adopting them broadly within the organization. The more questions that can be answered as “yes,” the higher the likelihood of sustainability.

### SYSTEMS

- ☐ Has the change been defined in terms of how it fits with the overall organizational mission, vision and strategic plan?
- ☐ Are there policies and procedures written in support of the change?
- ☐ Are those who need to carry out the new actions up to date with the information they need to be successful?
- ☐ Have the organization’s systems been revised to encourage the new action? How are staff members reminded to carry out the new actions? Are you monitoring that the new actions are being carried out and is staff being supported in their ability to carry out the new actions?
- ☐ Are there system barriers that prevent the new action from occurring? Are there certain identifiable parts of the system that pose a roadblock to doing things in the new way?
- ☐ Are there incentives or rewards for people who do not adopt the new action that need to be addressed or removed?
- ☐ Has the change been integrated into new employee orientation and training?

### PEOPLE

- ☐ Has strong leadership support for the change been established? Has the leadership communicated a clear and convincing message about the change and its purpose? Are multiple levels of leadership engaged (e.g., board of directors, administrator, and department managers)? Is the leadership vocal and visible in its support? How will the leadership continue to promote the change and encourage staff to stick with it over time?
- ☐ Have roles and responsibilities for carrying out new actions been clearly defined and assigned?



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- ☐ Are the people responsible for carrying out the change equipped to manage it? Do staff members have the appropriate skills and knowledge to successfully undertake any new actions required? Have training needs been addressed? Is additional or differently trained staff required?
- ☐ Are there champions for the change who are actively modeling the desired actions? Are there informal or natural leaders among the staff who could be encouraged to act as role models? Are there members of your staff exhibiting clear resistance to the change that should be addressed?

## ENVIRONMENT

- ☐ Is the organization ready to take on this change? What issues in the workplace culture should be addressed before the change can be expected to become permanent? Is the reason given for the change in line with the values and attitudes of the staff?
- ☐ Has adequate funding (if applicable) been budgeted to support the change?
- ☐ Have resources (equipment, materials, staff time, information) been made available? What additional resources would help to encourage the new actions to take place?
- ☐ Are there things that can be done to the physical environment that make it unavoidable to do things in the new way (e.g., automation of processes; removal of certain objects necessary to do things the previous way)?

## MEASUREMENT

- ☐ Has ongoing periodic measurement and review been scheduled to ensure the new action has been adopted and is performed consistently?
- ☐ Are indicators/measures chosen that tie directly to the new action? Can the indicator/measure distinguish the performance of different work groups (e.g., by unit, department, shift)? Are some work units carrying out the change more successfully than others? Can lessons for success be learned from certain work units and shared with others?
- ☐ Can certain indicators/measures be reviewed more frequently (even daily) by staff to show incremental changes, which can serve as a reminder for the new action and provide encouragement and reinforcement?
- ☐ Does measurement point to any changes in procedure that should be made to help facilitate the change?



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## Community Coalition Charter

### Name

Name of Coalition:

Community Location/Boundaries:

### Motivating Vision

### Shared Purpose of the Coalition

### Organizations Represented in this Coalition



## Interdependent Leadership Team Members

## Meeting Norms

## Member Commitments

## Interdependent Work Teams

## Coalition Meeting Schedule



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## Decision Making Norms

## Contact Information

Contact information will be shared within the Coalition for communication purposes.

☐ I would like to join this coalition and commit to this shared purpose.

Organization:

Member Name:

Role/Title:

Email:

Telephone:

Date: