

Quality Improvement Workbook

Telligen's one-stop resource for interactive quality improvement activities and worksheets



Telligen QI Connect™

Partnering to improve health outcomes through relationships and data

HQIC

Hospital Quality Improvement Contractors
CENTERS FOR MEDICARE & MEDICAID SERVICES
iQUALITY IMPROVEMENT & INNOVATION GROUP

QIN-QIO

**Quality Innovation Network -
Quality Improvement Organizations**
CENTERS FOR MEDICARE & MEDICAID SERVICES
iQUALITY IMPROVEMENT & INNOVATION GROUP

About Us

Telligen serves as the Centers for Medicare & Medicaid Services (CMS) Quality Innovation Network-Quality Improvement Organization (QIN-QIO) for Colorado, Illinois, Iowa and Oklahoma. QIN-QIOs are dedicated to improving health quality at the community level for people with Medicare, and services are provided at no cost.

Through Telligen QI Connect™, Telligen partners with healthcare providers, nursing homes, hospitals, community organizations and patients and families to improve the quality of healthcare services with interventions that are local, customized and aligned with evidence-based practices. Our network allows individuals from a wide array of settings to work together toward the common goal of making healthcare safer, more accessible and more cost-effective for Medicare beneficiaries. If you are located outside of Colorado, Illinois, Iowa or Oklahoma, [find your QIN-QIO here](#).

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 QIN-QIO offers enhanced technical assistance such as on-site and virtual observational assessments, data analysis, coalition building, a variety of quality improvement tools to support the development of evidence-based evaluation practices and more. [Request one-on-one enhanced technical assistance with a Telligen Quality Facilitator](#).

Using this Workbook

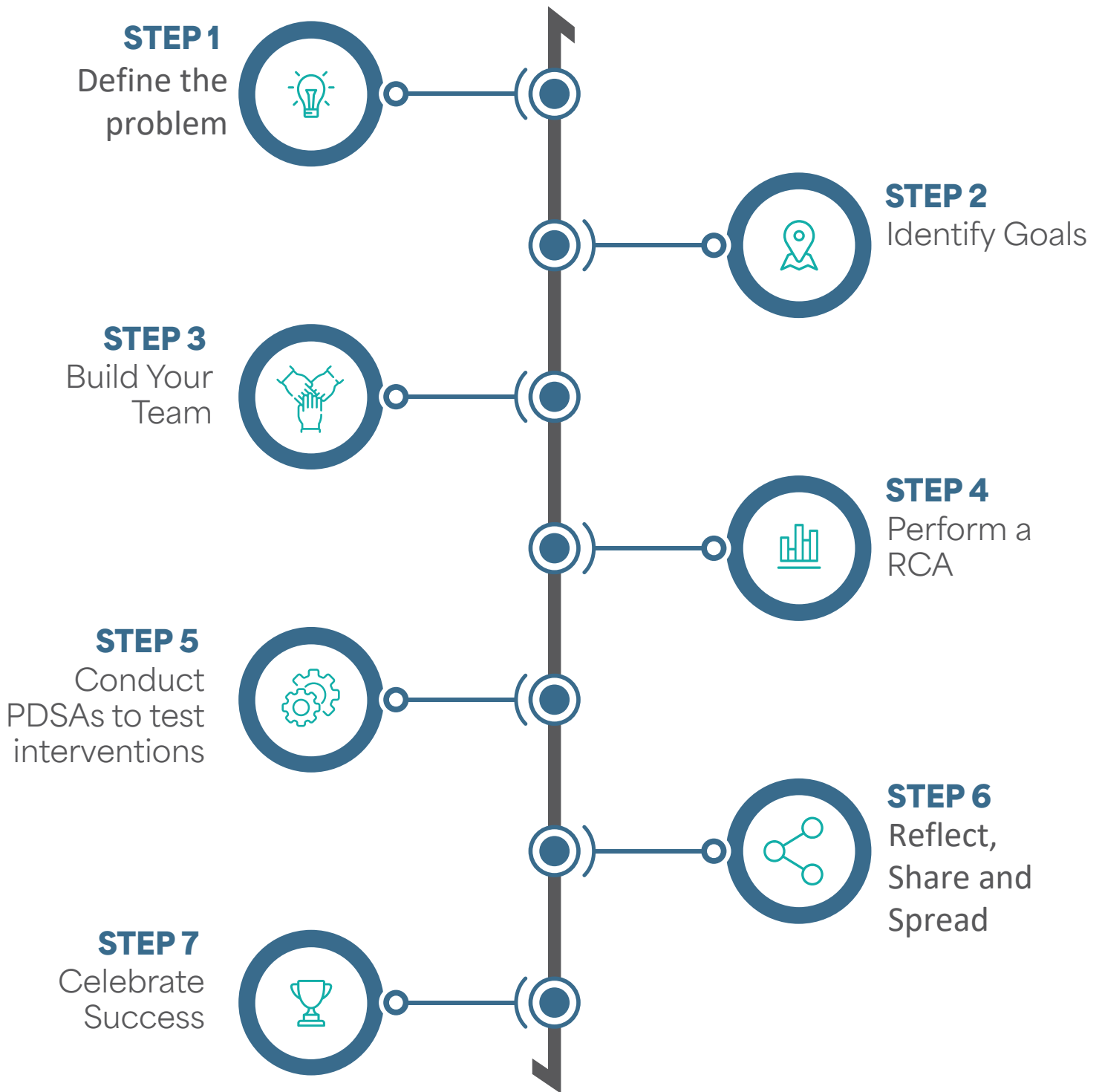
In this workbook, you will find valuable resources to support your team's quality improvement efforts. We have created a timeline to follow and ways to track progress during your organization's quality improvement journey. For more information or assistance, contact QIConnect@telligen.com. If you are working with a Telligen Quality Improvement Facilitator, or know what resource you would like to access, use the table below to navigate to the appropriate tool.

Interactive Worksheets Included in this Workbook

Five Whys Worksheet	The Five Whys is a simple problem-solving technique that helps to get to the root of a problem quickly.
Root Cause Analysis (RCA) Pathway	This interactive step-by-step guide is used for completing a root cause analysis.
Fishbone Diagram Worksheet	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.
PDSA Worksheet	This worksheet will guide you through the steps to conduct a Plan-Do-Study-Act (PDSA) process or cycle.
Sustainability Decision Guide	This is a resource to help leaders or teams determine if the interventions and changes they are making are sustainable.
PIP Documentation	This tool is for documenting and summarizing Performance Improvement Project (PIP) activities.
Community Coalition Charter	The Community Coalition Charter helps coalitions to outline their motivating vision, shared purpose, members, meeting norms, schedule, etc.
Team Charter	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. Log into the [Portal](#) and click on “Reports” to view outcome measure trends.
- 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.



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 [Telligen's resource library](#) 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



Telligen QI Connect™

Partnering to improve health outcomes through relationships and data

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.)

PROBLEM:		
REASON #1	REASON #2	REASON #3
↓	↓	↓
WHY?	WHY?	WHY?
↓	↓	↓
WHY?	WHY?	WHY?
↓	↓	↓
WHY?	WHY?	WHY?
↓	↓	↓
WHY?	WHY?	WHY?

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



Telligen QI Connect™

Partnering to improve health outcomes through relationships and data

Problem Identified

Form a Team

Schedule Meeting

Develop a Problem Statement



Conduct PDSA

Five Whys

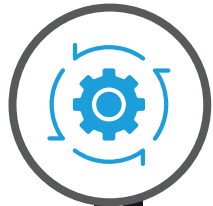


Is the problem minor?
Isolated?

-or-

Is the problem major?
Likely to reoccur?

If problem reoccurs,
use Fishbone Analysis



Select Interventions

Prioritize Root Causes

Fishbone Analysis

RCA Pathway

Start here. Follow the path and discover tools that will help you along the way. Items with a mouse cursor are clickable, and will open in a new window. If printing and using hardcopy, see resource page for links to tools.



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.

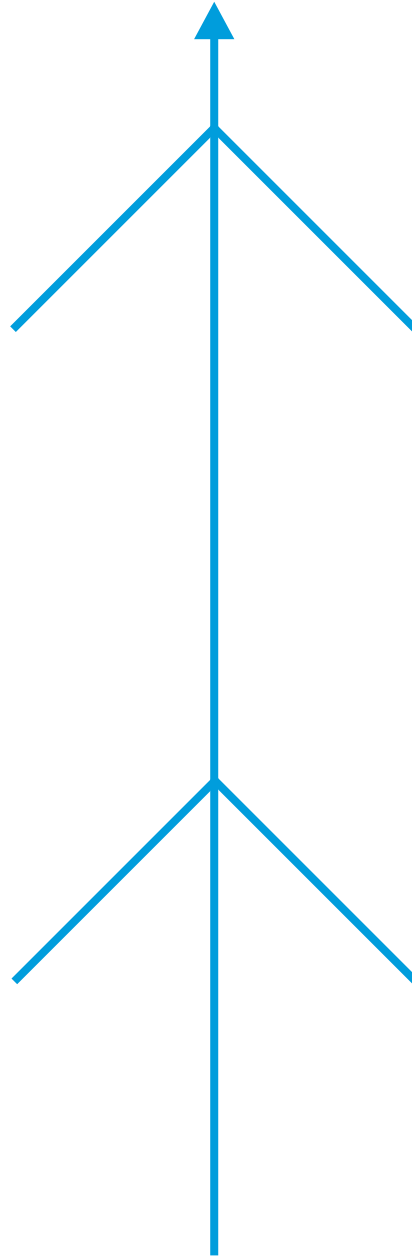
Tips

- 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.



Telligen QI Connect™

Partnering to improve health outcomes through relationships and data



Facility name:

CMS Certification Number (CCN):

For additional information completing the RCA:

<http://www.ihl.org/education/IHIOpenSchool/resources/Pages/AudioandVideo/Whiteboard16.aspx>

This material was prepared by Telligen, a Quality Innovation Network-Quality Improvement Organization, under contract with the Centers for Medicare & Medicaid Services (CMS), an agency of the U.S. Department of Health and Human Services (HHS). Views expressed in this material do not necessarily reflect the official views or policy of CMS or HHS, and any reference to a specific product or entity herein does not constitute endorsement of that product or entity by CMS or HHS. This material is for informational purposes only and does not constitute medical advice; it is not intended to be a substitute for professional medical advice, diagnosis or treatment.

12SOW-QIN-QIN-05/01/20-3681



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
--	------------------	----------

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:
--	---



Telligen QI Connect™

Partnering to improve health outcomes through relationships and data

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}).

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?

- 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?



Telligen QI Connect™

Partnering to improve health outcomes through relationships and data

QIN-QIO

Quality Innovation Network -
Quality Improvement Organizations
CENTERS FOR MEDICARE & MEDICAID SERVICES
iQUALITY IMPROVEMENT & INNOVATION GROUP

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

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, 2022.

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

This material was prepared by Telligen, the Medicare Quality Innovation Network Quality Improvement Organization, under contract with the Centers for Medicare & Medicaid Services (CMS), an agency of the U.S. Department of Health and Human Services (HHS). Views expressed in this document do not necessarily reflect the official views or policy of CMS or HHS, and any reference to a specific product or entity herein does not constitute endorsement of that product or entity by CMS or HHS. This material is for informational purposes only and does not constitute medical advice; it is not intended to be a substitute for professional medical advice, diagnosis or treatment. 12SOW-QIN-03/21/22-4360

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

This material was prepared by Telligen, the Medicare Quality Innovation Network Quality Improvement Organization, under contract with the Centers for Medicare & Medicaid Services (CMS), an agency of the U.S. Department of Health and Human Services (HHS). Views expressed in this document do not necessarily reflect the official views or policy of CMS or HHS, and any reference to a specific product or entity herein does not constitute endorsement of that product or entity by CMS or HHS. This material is for informational purposes only and does not constitute medical advice; it is not intended to be a substitute for professional medical advice, diagnosis or treatment. 12SOW-QIN-03/21/22-4360

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



Telligen QI Connect™

Partnering to improve health outcomes through relationships and data

Community Coalition Charter

Name

Name of Coalition:

Community Location/Boundaries:

Motivating Vision

Shared Purpose of the Coalition

Organizations Represented in this Coalition



QIN-QIO
Quality Innovation Network -
Quality Improvement Organizations
CENTERS FOR MEDICARE & MEDICAID SERVICES
QUALITY IMPROVEMENT & INNOVATION GROUP

This material was prepared by Telligen, the Medicare Quality Innovation Network Quality Improvement Organization, under contract with the Centers for Medicare & Medicaid Services (CMS), an agency of the U.S. Department of Health and Human Services. The contents presented do not necessarily reflect CMS policy. This material is for informational purposes only and does not constitute medical advice; it is not intended to be a substitute for professional medical advice, diagnosis or treatment. 12SOW-QIN-QIN-06/04/21-4114



Telligen QI Connect™

Partnering to improve health outcomes through relationships and data

Interdependent Leadership Team Members

Meeting Norms

Member Commitments

Interdependent Work Teams

Coalition Meeting Schedule



QIN-QIO
Quality Innovation Network -
Quality Improvement Organizations
CENTERS FOR MEDICARE & MEDICAID SERVICES
QUALITY IMPROVEMENT & INNOVATION GROUP

This material was prepared by Telligen, the Medicare Quality Innovation Network Quality Improvement Organization, under contract with the Centers for Medicare & Medicaid Services (CMS), an agency of the U.S. Department of Health and Human Services. The contents presented do not necessarily reflect CMS policy. This material is for informational purposes only and does not constitute medical advice; it is not intended to be a substitute for professional medical advice, diagnosis or treatment. 12SOW-QIN-QIN-06/04/21-4114



Telligen QI Connect™

Partnering to improve health outcomes through relationships and data

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:



QIN-QIO
Quality Innovation Network -
Quality Improvement Organizations
CENTERS FOR MEDICARE & MEDICAID SERVICES
iQUALITY IMPROVEMENT & INNOVATION GROUP

This material was prepared by Telligen, the Medicare Quality Innovation Network Quality Improvement Organization, under contract with the Centers for Medicare & Medicaid Services (CMS), an agency of the U.S. Department of Health and Human Services. The contents presented do not necessarily reflect CMS policy. This material is for informational purposes only and does not constitute medical advice; it is not intended to be a substitute for professional medical advice, diagnosis or treatment. 12SOW-QIN-QIN-06/04/21-4114

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	Date goal met (if applicable)
<i>Example: Reduce inappropriate antipsychotic medication use by 10% by December 31, 2024</i>	<i>CASPER Report</i>	<i>20%</i>	<i>10%</i>	<i>December 31, 2024</i>

PROJECT SCOPE

Who is being impacted? Select all that apply

Patients/Residents
 Family
 Staff
 Physicians

What departments, units or sites in the organization will be impacted by this work?

Anticipated time for completion

TEAM MEMBERS

Identify by name and title/role

BARRIERS

What obstacles can impact the success of planning? (resources, money, etc)	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)

This material was prepared by Telligen, a Quality Innovation Network-Quality Improvement Organization, under contract with the Centers for Medicare & Medicaid Services (CMS), an agency of the U.S. Department of Health and Human Services (HHS). Views expressed in this material do not necessarily reflect the official views or policy of CMS or HHS, and any reference to a specific product or entity herein does not constitute endorsement of that product or entity by CMS or HHS. This material is for informational purposes only and does not constitute medical advice; it is not intended to be a substitute for professional medical advice, diagnosis or treatment. 12SOW-QIN-11/26/23-5126