Regional Collaboration for

Quality Improvement in Long Term Care

A Toolkit for Success

CAC University of Indianapolis
Center for Aging & Community

Acknowledgements

The Center for Aging & Community would like to thank those who have contributed to the success of the Indiana Regional Healthcare Quality Improvement Collaboratives project.

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Regional Healthcare Quality Improvement Collaboratives

In 2015-2016, the Regional Healthcare Quality Improvement Collaborative initiative, funded by Indiana State Department of Health, formed seven regional Collaboratives across the state with the goal of improving quality of care in Indiana nursing facilities. Each lead organization brought together a Collaborative of at least 20 nursing facilities and other stakeholders in their region to complete two quality improvement projects in the participating nursing facilities. One project focused on infection prevention and one focused on an area of need identified by the Collaborative members. All projects followed the CMS Quality Assurance and Performance Improvement (QAPI) model (see *Appendix B* for web address). Overall management and technical assistance were provided by the University of Indianapolis Center for Aging & Community.

Lead organizations included Area Agencies on Aging, health systems, universities and nursing facilities. Each Collaborative spanned multiple counties, covering a large portion of the state. The lead organization and counties represented in each Collaborative are listed in *Figure 1*. *Figure 2* shows the counties participating in each Collaborative. Note: facilities from Henry and Randolph counties participated in both the Community Care Connections and East Central Indiana Collaboratives. A full size version can be found in *Appendix A1*.

Collaborative	Lead Organization	Counties
Central Indiana Nursing Home Improvement Collaborative (CINHIC)	Central Indiana Council on Aging	Boone, Hamilton, Hendricks, Marion, Hancock, Morgan, Johnson, Shelby
Community Care Connections (CCC)	Reid Health	Henry, Randolph, Wayne, Fayette, Union
East Central Indiana Collaborative (ECIC)	LifeStream Services	Wabash, Grant, Blackford, Jay, Madison, Delaware, Henry, Randolph
North Central Indiana Quality Improvement Collaborative (NCIQIC)	REAL Services, Inc.	LaPorte, St. Joseph, Elkhart, Marshall, Kosciusko
Quality Improvement Collaborative of Northeast Indiana (QICNE)	Aging & In-Home Services of Northeast Indiana, Inc.	LaGrange, Steuben, Noble, DeKalb, Whitley, Allen, Huntington, Wells, Adams
Southern Indiana Regional Collaborative (SIRC)	Indiana University School of Public Health Bloomington	Owen, Monroe, Greene, Lawrence, Orange, Brown
Southwestern Indiana Collaborative for Performance Improvement (SWICPI)	Gibson General Hospital Skilled Nursing Facility	Knox, Gibson, Pike, Posey, Vanderburgh, Warrick, Daviess, Dubois

Figure 1: Regional Collaborative Titles & Lead Organizations

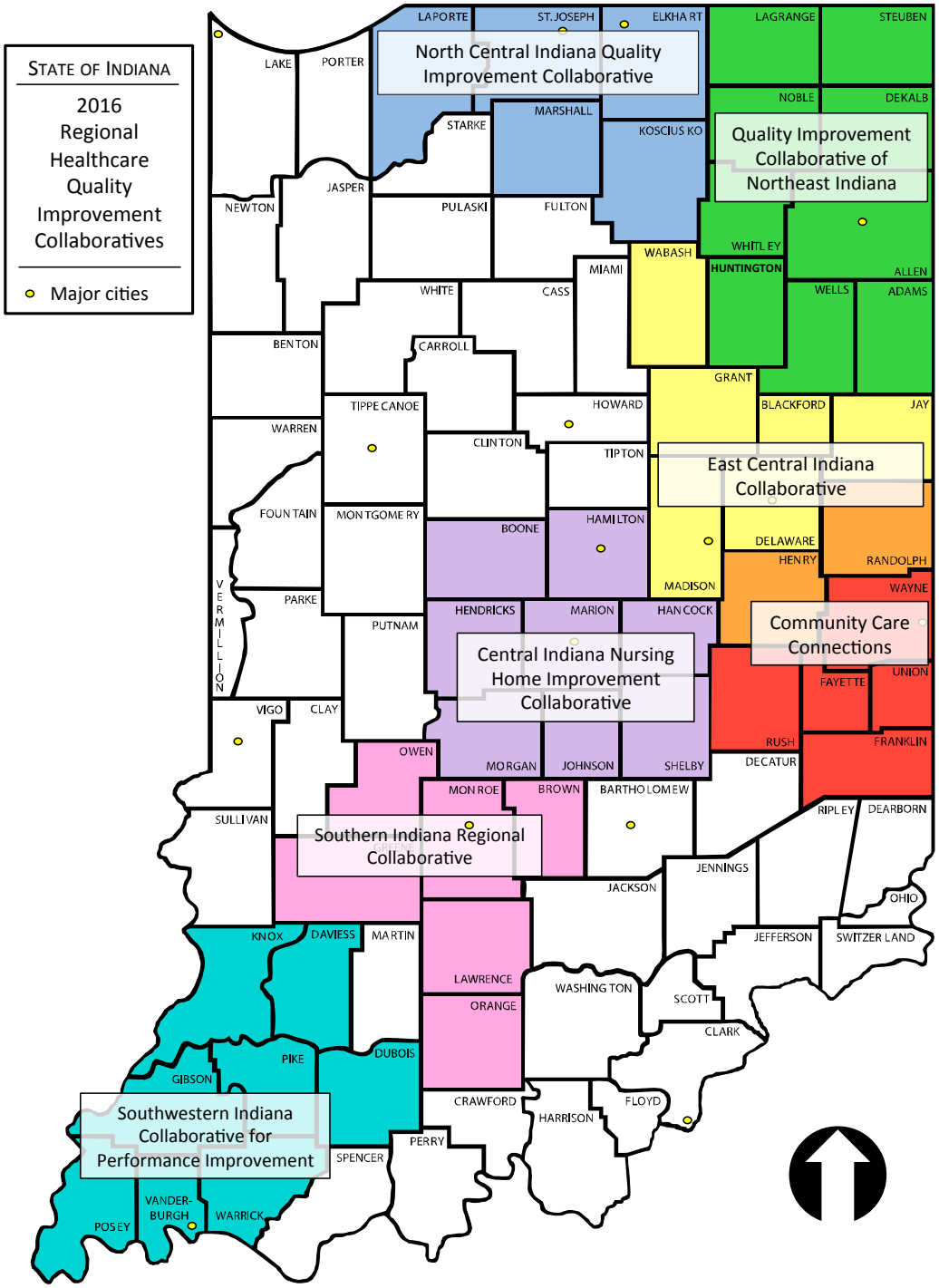


Figure 2: A1 Participating Regional Collaborative Geographic Areas

This toolkit outlines each of the steps of forming a Collaborative, teaching members the QAPI process, and implementing the steps of QAPI based on the best practices learned from this initiative. Resources, tools, and links to additional information are included throughout. Additionally, specific best practices and tools related to the individual Performance Improvement Project (PIP) topics chosen by the Collaboratives are outlined in the second half of this toolkit. These include reducing urinary tract infections (UTIs), reducing falls, reducing healthcare-associated infection-related hospitalizations, reducing pneumonia infections, reducing unnecessary use of antipsychotic medications, and improving staff turnover and retention rates. *Figure 3* details which project topic was chosen by each Collaborative.

Collaborative	Project 1	Project 2
Central Indiana Nursing Home Improvement Collaborative	Reducing Rates of UTIs	Improving Staff Turnover (CNAs)
Community Care Connections	Reducing HAI Related Hospitalizations	Improving Staff Turnover (Nursing)
East Central Indiana Collaborative	Reducing Rates of Pneumonia	Reducing Rates of Antipsychotic Use
North Central Indiana Quality Improvement Collaborative	Reducing Rates of UTIs	Improving Staff Retention (CNAs)
Quality Improvement Collaborative of NE Indiana	Reducing Rates of UTIs	Improving Staff Turnover (CNAs)
Southern Indiana Regional Collaborative	Reducing Rates of Falls	Reducing Rates of UTIs
Southwestern Indiana Collaborative for Performance Improvement	Reducing Rates of UTIs	Reducing Rates of Antipsychotic Use

Figure 3: Regional Collaborative Project Topics

1. Forming a Collaborative

Things to know before you get started

The lead agency, or Collaborative leadership team, should meet in advance of Collaborative member recruitment to consider what facilities and stakeholder organizations will be invited to participate in the Collaborative.

How we collaborate

The use of the word 'collaborative' in the Regional Collaborative initiative is intentional. Nursing facilities operate in a complex environment of organizations that can influence quality of care and/or the success of the Regional Collaborative and their Performance Improvement Projects (PIPs). As Collaboratives form, it may be helpful for the leadership group to consider what it means to truly collaborate, rather than simply cooperate with others or coordinate activities.

Levels of engagement

Cooperation

In a group of organizations that **cooperates**, member entities may help each other through sharing information or making referrals, coordinating schedules, or advertising events in others' communications.

Coordination

A group of facilities that **coordinates** goes beyond cooperation. Member entities help each other on specific tasks, such as coordinating service for one family across several facilities or programs, or developing a community-based coalition to address a specific need.

Collaboration

A true **Collaborative** not only cooperates regularly and coordinates efforts, member entities work jointly on a common goal that is beyond what any one entity could accomplish alone. Collaboratives plan jointly, pool resources, and evaluate outcomes together to achieve that common goal. Members of regional healthcare quality improvement Collaboratives should understand that they will be expected to actively participate in planning, contribute financial or in-kind resources, and share non-identifiable data and promising practices to support evaluation efforts.

Collaborative membership

When launching a Collaborative, leadership should consider the following questions to promote diverse and inclusive membership:

- **What is the vision and purpose of the group?**
- **What resources (e.g., staff, skill sets, potential partners, etc.) exist?**
- **Is membership diverse, reflecting those the group serves?**
- **Who is missing from the Collaborative membership?**
- **How are residents and family members involved in Collaborative work?**

Membership Eco-Map Worksheet

The Membership Eco-Map is a simple-to-use document and group exercise to map the various relationships of an organization or a Collaborative. The Eco-Map can be used prior to recruiting Collaborative members to highlight strong, weak, stressful, or missing relationships among the organizations that will be invited to join. Collaborative leadership, in a facilitated group, should identify all potential Collaborative members, place those names in circles around the edge of the worksheet, and define the relationship between the lead agency or Collaborative leadership and each potential member (with the appropriate type of line – solid for strong, dotted for week, dashed and dotted for stressful, and no line for a nonexistent relationship). See the printable ***Membership Eco-Map Worksheet*** in *Figure 4* and *Appendix A2*.

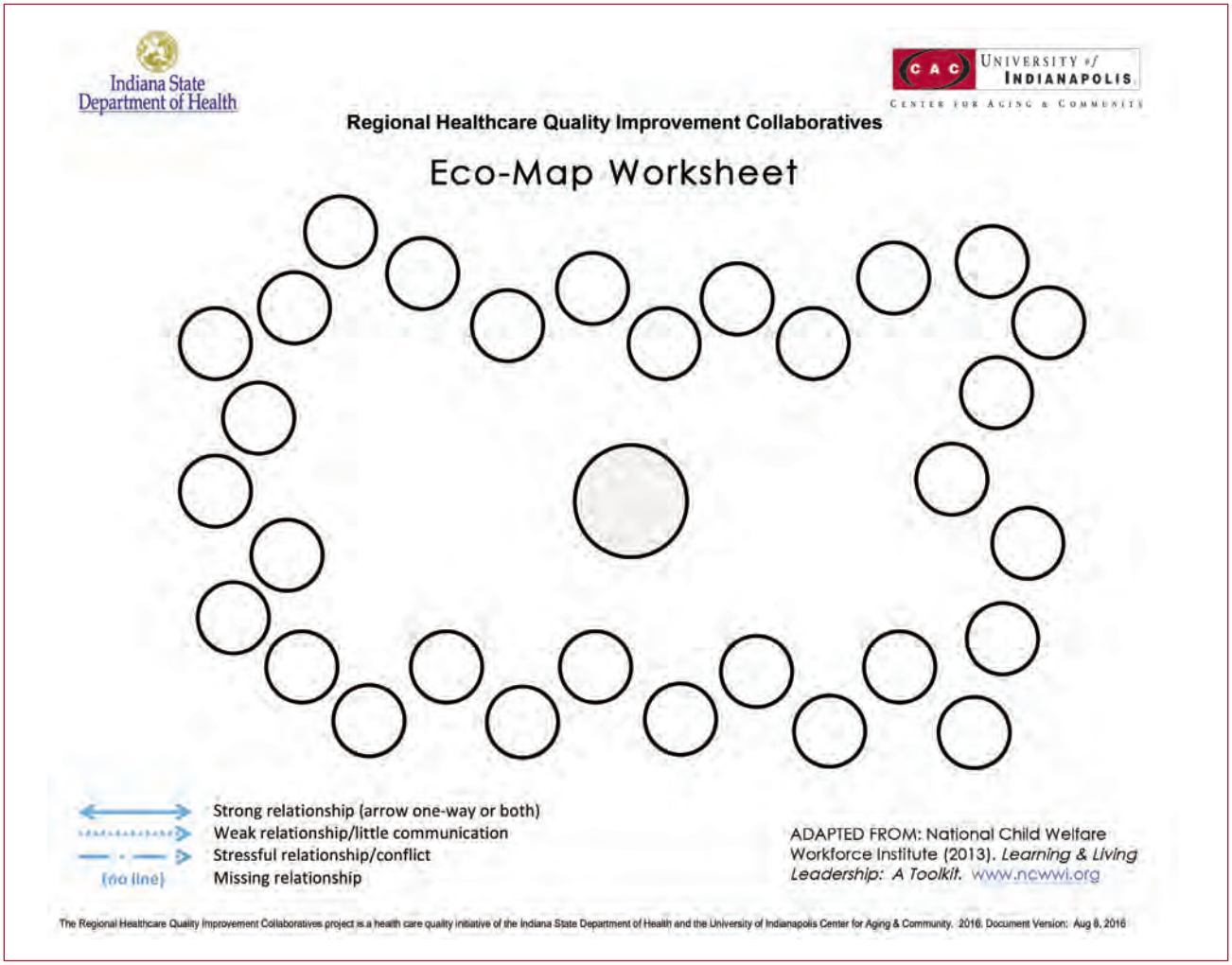


Figure 4: A2 Membership Eco-Map Worksheet

Communication

Effective **internal** and **external communication** can help a Collaborative accomplish many things, including keeping Collaborative members engaged and effective, and soliciting community support for ongoing activities.

Communication plan

To build a communication plan for the Collaborative, define each internal and external audience of the Collaborative, as well as messages (what each audience needs to know), and methods of delivery (how the messages will be communicated). Timing of communications should also be established, such as monthly meetings or newsletters.

Audience	Message(s)	Method(s)	Timing
Collaborative Members	Mission & goals	Meetings	Monthly
	Progress updates	Article Insert	Quarterly

Figure 5: Sample Communication Plan Format

Identify stakeholders/audiences

Each audience represents a stakeholder group:

- **Organizations necessary to achieve the Collaborative's work, such as member facilities, hospitals, nursing facility associations, or the Indiana State Department of Health.**
- **Organizations or individuals that could make the Collaborative's work more effective, such as local universities, subject matter experts (e.g., gerontologists, researchers, or trainers), related professional associations (e.g. local chapters of the Association for Professionals in Infection Control and Epidemiology, Medical Directors' Association or Area Agencies on Aging).**
- **Organizations or individuals that will be affected by the Collaborative's work, such as facility residents, families or partner healthcare, and quality organizations.**

The right partners can enhance the effectiveness of the Collaborative. For example, the Southwestern Indiana Collaborative for Performance Improvement partnered with the University of Southern Indiana to collect nursing facility members' data to reduce any concern regarding data being shared with competitors.

Specific messages should be defined for each audience, answering the following questions:

- **How does my organization fit into this Collaborative?**
- **What do I need to know or do?**
- **How are we doing? What have we accomplished?**
- **What's next?**

When choosing communication methods, consider access to technology and preferences for receiving information (TIP: If you don't know how your members prefer to receive information, ask them with a show of hands at your meeting or a simple online survey.) The Collaborative should leverage existing tools whenever possible (lead agency newsletters, partner or association communications, and meetings of relevant stakeholders), choose methods that are sustainable, and use language accessible to each audience.

Initial Recruitment Messages

Several Collaboratives used flyers to help recruit new members. These were distributed electronically and in hard copy. *Sample Recruitment Flyers* – statewide and as developed by the Southern Indiana Regional Collaborative – can be found in *Appendix A3* and *A4*.

Sample Agenda

Each Collaborative held a kick off meeting that introduced members to one another, to the Collaborative, and to the QAPI process. A sample agenda is included in *Appendix A5*.

Participation Agreements

Participation agreements are a useful tool for outlining the requirements for participation and expectations of Collaborative members. Sample participation agreements can be found in *Appendix A6* and *A7*.

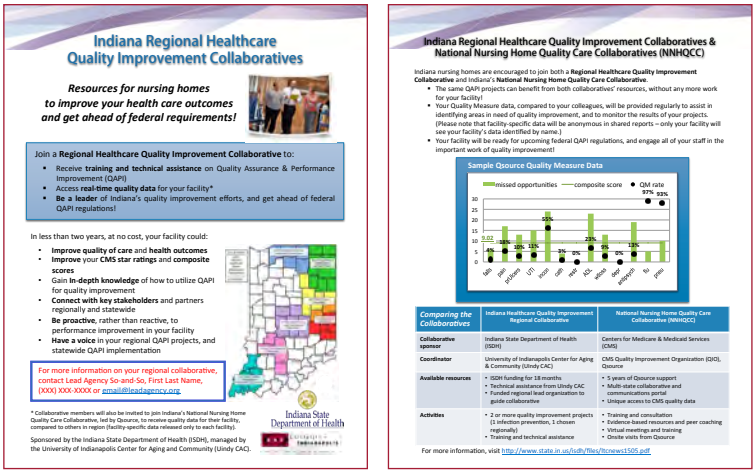


Figure 6: A3 Sample Recruitment Flyer (Statewide)

Engaging through change

One of the most important roles of the lead agency is to engage member organizations in collaborative activities and support and enable lasting change through the Performance Improvement Projects (PIPs). As a change leader, the lead agency must:

- **Envision the Change – Articulate a clear vision and generate enthusiasm for goals**
- **Energize the Collaborative – Be excited and communicate early successes**
- **Enable Lasting and Effective Change – Provide resources needed and use rewards to reinforce change**

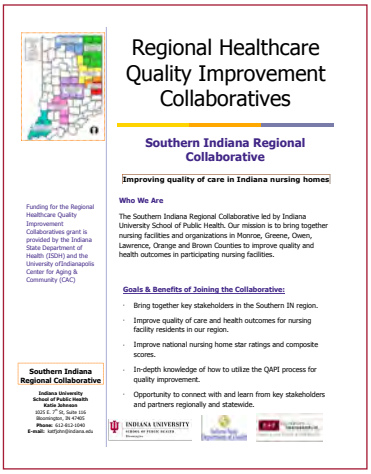
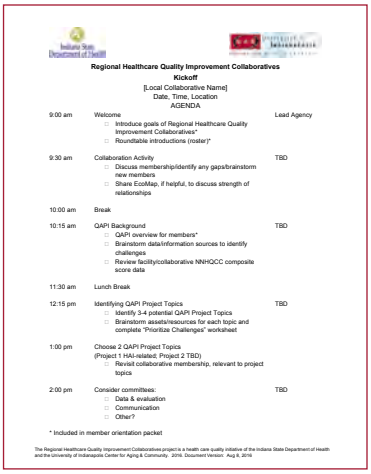


Figure 7: A4 Sample Recruitment Flyer (SIRC)

Member contributions should be encouraged to actively engage participants at meetings:

- **Break into small groups to facilitate discussion**
- **Raise hands for quick feedback or a few Yes/No questions**
- **Always report out from small groups**
- **Brainstorm with post-its for those who do not like to speak up**
- **Use nominal voting to allow everyone to have input on decisions or prioritization (e.g., using stickers or other means to "vote" on a list of items on a flip chart or white board)**



Regional Healthcare Quality Improvement Collaboratives
Kickoff
[Local Collaborative Name]
Date, Time, Location
AGENDA

9:00 am	Welcome □ Introduce goals of Regional Healthcare Quality Improvement Collaboratives* □ Roundtable introductions (roster)*	Lead Agency
9:30 am	Collaboration Activity □ Discuss membership/identify any gaps/brainstorm new members □ Share EcoMap, if helpful, to discuss strength of relationships	TBD
10:00 am	Break	
10:15 am	QAPI Background □ QAPI overview for members* □ Brainstorm data/information sources to identify challenges □ Review facility/collaborative NNHQCC composite score data	TBD
11:30 am	Lunch Break	
12:15 pm	Identifying QAPI Project Topics □ Identify 3-4 potential QAPI Project Topics □ Brainstorm assets/resources for each topic and complete "Prioritize Challenges" worksheet	TBD
1:00 pm	Choose 2 QAPI Project Topics (Project 1 HAI-related; Project 2 TBD) □ Revisit collaborative membership, relevant to project topics	
2:00 pm	Consider committees: □ Data & evaluation □ Communication □ Other?	TBD

* Included in member orientation packet

The Regional Healthcare Quality Improvement Collaboratives project is a health care quality initiative of the Indiana State Department of Health and the University of Indianapolis Center for Aging & Community. 2016. Document Version: Aug 8, 2016

Figure 8: A5 Sample Collaborative Kick-off Agenda

Between meetings, communications should be provided in the way Collaborative members indicated at the start of the initiative they prefer to receive information. When emailing information, remember to include the task or action item in the subject line and consider using quick online surveys to solicit specific feedback.

Kotter International provides a number of resources on effective culture change which may be useful for Collaborative leaders and members. See *Appendix B* for the full website.

Identifying change agents

Change agents can be important allies of the leadership group in enabling lasting change throughout member organizations. Change agents are individuals in affected stakeholder groups who help implement or reinforce a change. They can be formal or informal, within member organizations (e.g., member facility's QAPI nurse) or from outside organizations (e.g., Quality Improvement Organization or a university). When identifying change agents, the lead agency should attempt to identify individuals who are motivated about the change and credible within their stakeholder group.

Once enlisted as informal or formal change agents, these individuals should be engaged more frequently than other members of the Collaborative to reinforce benefits to members, help leadership understand how to address challenges, escalate problems and concerns to leadership, and encourage understanding and participation in collaborative activities. For instance, a Collaborative could have a change agent at each facility – a "QAPI Champion" – who could help reinforce QAPI activities and outcomes at their facility, assist in identifying data or team members relevant to PIPs, and act as a resource for collaborative leadership regarding their facility's operations and participation.

The Collaborative should support change agents through frequent communication, helping them understand the context and vision for the change, providing support for ongoing concerns or questions, and celebrating and appreciating them.

Committees

Committees can be helpful to accomplish a specific collaborative task or enable engagement of non-member organizations for specific purposes.

When to form a committee?

Collaboratives might consider forming a committee when one of the following circumstances arise:

- **An upcoming task involves research or investigation before a decision or recommendation can be made.**
- **Expertise is needed from people other than Collaborative members to ensure outcomes are reached.**
- **Details need to be collected and drafted for the Collaborative before a recommendation or decision can be made.**
- **More time is needed to develop and formulate an idea before a decision or recommendation can be made.**
- **Strategic planning is needed.**
- **Detailed work is needed to ensure that action steps occur.**

Committees that work

The lead agency should not conduct leadership tasks in a vacuum. Delegating tasks to members or committees can be an effective engagement strategy and distribute the workload across the collaborative. Committees that work well:

- **Engage members who have the time, skills, and authority to ensure new policies/programs are implemented (as necessary for the scope of the committee).**
- **Set clear deadlines for follow-up.**
- **Immediately address obstacles to implementation with Collaborative leadership.**
- **Share progress reports at every Collaborative meeting.**

Examples of committees used in the Regional Collaborative projects included Member Retention, Sustainability, and Data.

Attendance Policy

The Southwestern Indiana Collaborative for Performance Improvement Member Retention committee created an attendance policy for the Collaborative. This policy helped maintain consistent member participation in meetings and timely submission of data. A copy of the policy can be found in *Appendix A8*.

Governance and Communication Tips

A two-page handout with tips for Collaborative structure and practice, as well as communications and member engagement was created as part of the initiative. This handout may be useful as a quick reference for Collaborative leadership and members. A copy of the handout can be found in *Appendix A9*.


Indiana Regional Healthcare
Quality Improvement Collaboratives

TA TIPS: Governance & Communication

The way you organize your collaborative may have a considerable impact on how well it functions! Consider these Governance tips:

✓ **SHARE AUTHORITY**: A leadership team, or Steering Committee, can help your collaborative plan and execute activities in a way that takes all perspectives into account. This is especially important when you have different groups in your collaborative, which are not represented in the Lead Agency (nursing homes, physicians, etc.).

✓ **LEVERAGE COMMITTEE WORK**: Establish committees to focus on topics that require a significant amount of work and could benefit from a continual focus from several collaborative members.

- ✓ *Suggested committees* – Data (Should include people who understand the "business" as well as the data), Communications (Make sure all major stakeholder groups are represented, to communicate effectively to all), Sustainability (Consider involving long-term partners or funders)
- ✓ *Committees can be temporary!* A strong candidate for a temporary committee for Regional Collaboratives would be a project-specific steering committee of members who have expertise or interest in the project area.
- ✓ *Become part of your region's routine* – Set regular meetings and communications to become part of members' routines. Some of your communications should be outside of your collaborative, to share your work!

✓ **DELEGATE EFFECTIVELY**: Follow these three steps to make sure your task is completed!

1. Prepare beforehand – master list of all tasks, assigned to lead agency, committees or members
2. Clearly define the task to be completed – be specific about end product
3. Mutually agree on a timeline and due date, with checkpoints (if timeline is long)

Consider having a **change agent** (Champion, Liaison, etc.) in each member facility to:

- ✓ Reinforce benefits to colleagues
- ✓ Escalate concerns to leadership
- ✓ Encourage project participation

Remember to support, communicate with and appreciate your change agents!

Indiana State Department of Health

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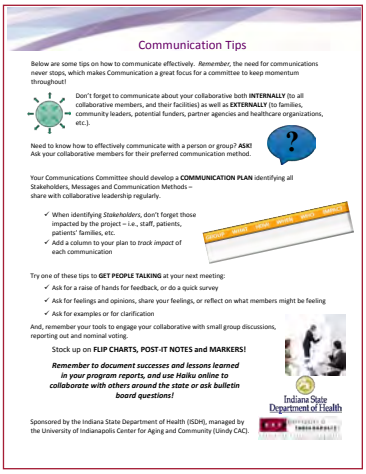
Communication Tips

Below are some tips on how to communicate effectively. *Remember*, the need for communications never stops, which makes Communication a great focus for a committee to keep momentum throughout!

Don't forget to communicate about your collaborative both **INTERNALLY** (to all collaborative members, and their facilities) as well as **EXTERNALLY** (to families, community leaders, potential funders, partner agencies and healthcare organizations, etc.).

Need to know how to effectively communicate with a person or group? **ASK!** Ask your collaborative members for their preferred communication method.

Your Communications Committee should develop a **COMMUNICATION PLAN** identifying all Stakeholders, Messages and Communication Methods – share with collaborative leadership regularly.

- ✓ When identifying *Stakeholders*, don't forget those impacted by the project – i.e., staff, patients, patients' families, etc.
- ✓ Add a column to your plan to *track impact* of each communication

Try one of these tips to **GET PEOPLE TALKING** at your next meeting:

- ✓ Ask for a raise of hands for feedback, or do a quick survey
- ✓ Ask for feelings and opinions, share your feelings, or reflect on what members might be feeling
- ✓ Ask for examples or for clarification

And, remember your tools to engage your collaborative with small group discussions, reporting out and nominal voting.

Stock up on **FLIP CHARTS, POST-IT NOTES and MARKERS!**

Remember to document successes and lessons learned in your program reports, and use Haiku online to collaborate with others around the state or ask bulletin board questions!

Indiana State Department of Health

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Figure 9: A9 Governance & Communication Tips

2

What is QAPI? An Introduction to QAPI from the Collaborative Perspective

2. What is QAPI? An Introduction to QAPI from the Collaborative Perspective

The Centers for Medicare & Medicaid Services Quality Assurance and Performance Improvement (QAPI) initiative is a nationwide program that aims to improve the quality of life, care, and services in long term care facilities with a data-driven, proactive approach (see *Appendix B* for the full website). The program addresses all systems of care and management while focusing on clinical care, quality of life, and resident choice in each facility. The leadership seeks input from facility staff, residents, and families/representatives in order to improve outcomes within the region by analyzing and improving processes in the facility.

QAPI is built around *Five Essential Elements and Action Steps to QAPI* (see *Appendix B* for the full websites) to support nursing facilities in creating and sustaining a culture of data driven quality. QAPI engages all staff at all levels, uses data to identify and address areas for improvement, and ensures changes are systemic and sustainable. Collaborative leadership worked with members to implement the initiative at a Collaborative and individual facility level. The framework of QAPI is below, with links to original CMS documents for the program. The following sections outline how this was adapted for use in a Collaborative.

QAPI 5 Essential Elements

The QAPI Five Essential Elements create the foundation for implementing QAPI in a nursing facility. A full description of these elements can be found on the CMS website (see *Appendix B*).

QAPI Elements	Definitions
1. Design & Scope	Establish an on-going, comprehensive QAPI program dealing with the full range of services.
2. Governance & Leadership	Develop a culture that seeks input from the facility staff, residents & families/representatives.
3. Feedback, Data Systems & Monitoring	Implement systems to monitor the facility's care and services utilizing data from multiple sources.
4. PIPs - Performance Improvement Projects	Conduct PIPs to evaluate and improve care and services in one area of the facility or facility-wide.
5. Systematic Analysis and Systematic Action	Develop policies/procedures and demonstrate profic ency in using Root Cause Analysis (RCA).

Figure 10: CMS QAPI Five Essential Elements

The Collaboratives also modeled their work around the five elements, adapting them slightly to fit the Collaborative format.

ELEMENT 1. DESIGN & SCOPE

Individual facilities develop QAPI plans that are comprehensive, including all departments and all services offered by the facility. Within that same framework, Collaborative leadership develops the plan of action for the Collaborative, carrying the same tenets into the design and work of the Collaborative.

ELEMENT 2. GOVERNANCE AND LEADERSHIP

Collaborative leadership works closely with all participants to determine the governance structure each group will follow and how leadership will be shared. Governance can include committees and/or executive boards as part of the leadership. Leadership should work with members to outline their roles, responsibilities, and accountability. Leadership manages the resources of the Collaborative (time, funding, technical assistance) to ensure members have the resources they needed. Leadership is accountable for fully engaging all members, regardless of experience or performance ranking, and creating an open atmosphere to allow frank discussion and honest sharing of ideas.

ELEMENT 3. FEEDBACK, DATA SYSTEMS & MONITORING

Collaborative leaders work with members to identify and utilize existing feedback and data systems and a confidential process for sharing and monitoring of data. It is important to include a non-facility member who will collect and maintain anonymity of data. This can be community organizations such as Area Agencies on Aging, health systems or universities who are in leadership roles or join the Collaborative specifically to monitor and analyze data. This is discussed further in *Section 4*.

ELEMENT 4. PIPS – PERFORMANCE IMPROVEMENT PROJECTS

Performance Improvement Projects are focused interventions to address an identified quality issue. Collaboratives identify these issues collectively and step through the process together.

ELEMENT 5. SYSTEMATIC ANALYSIS AND SYSTEMATIC ACTION

Collaboratives support member analysis and action throughout the process - providing guidance and resources for root cause analysis. Specific systematic actions taken to improve processes can be done Collaborative-wide or individually, depending on the root cause. This process includes significant discussion and support from the Collaborative.

Action Steps to QAPI

Detailed implementation of the QAPI model follows an Action Steps to QAPI process. In the traditional QAPI model, each facility follows this process to improve quality. In a Collaborative structure, some steps are addressed at the Collaborative level, some at the facility level, and some at both levels. Details of this process are included in the next section along with useful tools and resources for each step.

12 Action Steps to QAPI	Action Level
1. Define Leadership Responsibility & Accountability	Collaborative and Facility
2. Develop Deliberate Approach to Teamwork	Collaborative and Facility
3. Conduct a Self-Evaluation: QAPI Self-Assessment Tool	Facility
4. Identify Organizational Guiding Principles	Collaborative and Facility
5. Develop QAPI Plan	Facility
6. Conduct QAPI Awareness Campaign	Collaborative and Facility
7. Develop Strategy for Collecting and Using QAPI Data	Collaborative and Facility
8. Identify Gaps & Opportunities	Collaborative and Facility
9. Prioritize and Charter Projects (PIPs)	Collaborative and Facility
10. Plan, Conduct, and Document PIPs	Collaborative and Facility
11. Identify the Root Cause of Problems (RCA)	Facility
12. Take Systematic Action	Collaborative and Facility

Figure 11: Action Steps to QAPI

Overall, it will be helpful to have a work plan for the activities of the Collaborative. This ensures clear expectations for the timeline of Collaborative activities, supports the Process Improvement Project (PIP) timeline, and keeps all members on track. Additionally, it tracks overall responsibility for process steps.

The work plan outlines each major area of work and each deliverable. These are then broken down into smaller sub-steps to ensure the process is thorough and complete. Each step is scheduled on the project calendar and a lead person is assigned. Initially, this timeline is the best estimation of when each step will occur and will likely be updated as the project progresses. A sample work plan can be found in *Appendix A10*.

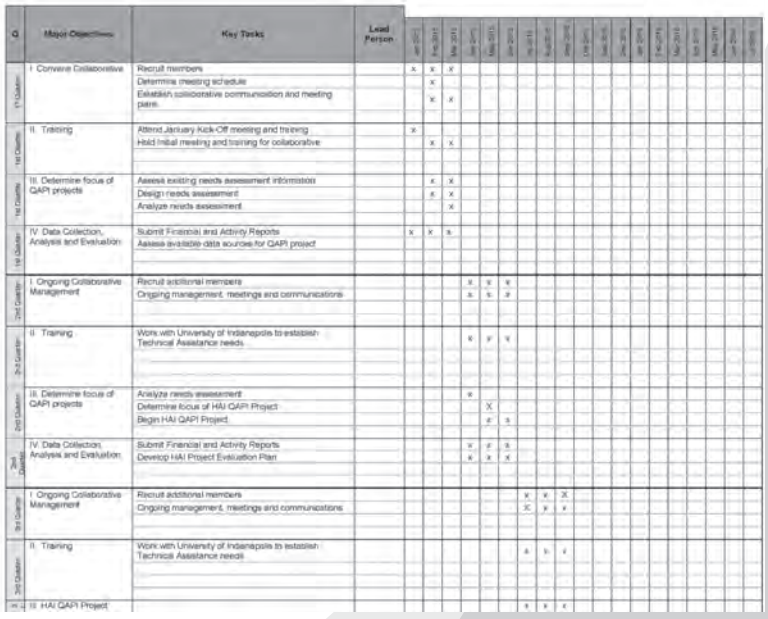


Figure 12: A10 Sample Regional Collaborative Work Plan

3

Utilizing QAPI as a Collaborative

3. Utilizing QAPI as a Collaborative

Each Collaborative utilized the QAPI model as a group to change the way members thought about and worked towards high quality service for residents and to create a culture of quality throughout the region. Collaboratives worked through the QAPI process twice, identifying and completing two process improvement projects. Collaboratives learned about and implemented each of the 12 steps outlined above and celebrated successes along the way. This section includes best practices for each of the 12 steps, what is done at the Collaborative and facility level, and how to transition between projects.

Working through the QAPI process

When working through the QAPI process as a Collaborative, the 12 steps create a helpful road map for the process. In each step there are actions for the Collaborative and individual facilities.

Action Step 1. Leadership Responsibility and Accountability

The way you organize your Collaborative may have considerable impact on how well it functions. Consider these governance tips:

- **Share Authority** - A leadership team, or Steering Committee, can help your Collaborative plan and execute activities in a way that takes all perspectives into account. This is especially important when you have different groups in your Collaborative that are not represented by the Lead Agency (nursing homes, physicians, etc.).
- **Leverage Committee Work** - Establish committees to focus on topics that require a significant amount of work and could benefit from a continual focus by several Collaborative members.

  Suggested committees – Data (should include people who understand the "business" as well as the data), Communications (make sure all major stakeholder groups are represented to communicate effectively to all), Sustainability (consider involving long-term partners or funders).

  Committees can be temporary – A strong candidate for a temporary committee for Regional Collaboratives would be a project-specific steering committee of members who have expertise or interest in the project area.

  Become part of your region's routine – Set regular meetings and communications to become part of members' routines. Some of your communications should be outside of your Collaborative to share your work.
- **Delegate Effectively** - Follow these three steps to make sure your task is completed.

  1. Prepare beforehand a master list of all tasks, assigned to lead agency, committees, or members.

  2. Clearly define the task to be completed. Be specific about end product.

  3. Mutually agree on a timeline and due date, with checkpoints (if timeline is long).

Encourage each facility to use the same governance tips when outlining leadership and accountability within their facility. Sharing authority within the facility helps to engage all staff and create a pervasive culture of quality.

Action Step 2. Develop a Deliberate Approach to Teamwork

Initially, member facilities may be hesitant to discuss challenges or areas for quality improvement with other facilities they see as competitors. Establishing the Collaborative, and Collaborative meetings, as an "all teach, all learn" environment where members "do not compete on quality" is an important part of developing a deliberate approach to teamwork. You may wish to address this at initial meetings and periodically throughout the process, stressing the importance of working together to improve quality for all. Tips for encouraging this teamwork approach include:

- **Small Group Discussions** – Initially, members may be hesitant to speak openly in front of the entire group, but may be more talkative in smaller groups. Breaking up participants from the same facility into different discussion groups will help to create cross-facility conversation and begin to build a sense of teamwork across facilities.
- **Pass the Mic** - Throw a small stuffed animal or similar item to "pass the mic" from person to person at the meeting. Each person who catches the item has the floor for input. This will help to reduce passivity, encourage participation, and can be used for group share at the end of the meeting.
- **Blinded Data** – Have a Collaborative member who is not from a facility collect data to help to encourage teamwork when brainstorming ideas. Few facilities will want to share data that has their name on it, but when a neutral third party collects and de-identifies data, it opens the discussion for all. This is discussed further in *Action Step 7. Develop Strategy for Collecting and Using QAPI Data.*

The QAPI process seeks to influence practice throughout member facilities, which requires effective engagement of Collaborative members from leadership to front-line staff. The CMS video *Nursing Home QAPI – What's in it for You?* discusses benefits of QAPI that may be useful to highlight while the Advancing Excellence in America's Nursing Homes handout *Top 10 Ideas to Involve All Staff in Advancing Excellence* can be particularly helpful in this area. See *Appendix B* for the full links to these websites.

To engage staff across member nursing facilities, keep in mind the following tips about engaging different kinds of staff and stakeholders at a nursing facility in a QAPI initiative.

Staff Members and Stakeholders	What Motivates Them?	What Can They Do?
Medical Directors	· Improved processes on-site can make their job easier and can improve department functioning through streamlined efforts · Collaborative offers peer-to-peer opportunities with face-to-face working better · Letters from the Executive Director regarding desire for MD involvement	· Help get other stakeholders engaged, such as local hospitals · Network with other Medical Directors to discuss areas of improvement · Identify challenges and areas for improvement

Staff Members and Stakeholders	What Motivates Them?	What Can They Do?
Environmental & Maintenance	· Making the facility better · Being empowered to identify and report problems, mood changes for residents, etc. · Engaging with the interdisciplinary team as an integral part of the success of the facility	· Participate and provide feedback because they see the residents frequently · Know and talk to the residents and their family frequently, may observe changes other staff don't · Process improvements related to the facility
CNAs	· Improved resident care · Streamlined duties make their role easier, improves job satisfaction · QAPI empowers staff, give a voice and opportunity to participate in improving the facility and resident care · High quality of care for residents, consistent care	· Communicate meetings & updates in break room about what is going on · Provide input on barriers and project opportunities · Include QAPI in training for CNAs upfront at facility level · Include in QAPI meetings, get them excited, make them feel important. They are the backbone and eyes and ears to the facility and residents.
Residents	· Knowing WHY changes are happening and what changes are being made (e.g. Why are they being offered a drink all the time?) · Process improvement can help the quality of life for them and other residents	· Be the eyes and the ears in the facility by reporting strengths and weaknesses within the improvement process · Suggest ideas on how to improve a process or what systems need improvement from a resident perspective · Help engage other residents
Department Heads	· Data, dollars and cents; bottom line focus · QAPI Process could reduce turnover of staff, identify internal issues, increase staff/resident satisfaction and impact the reputation of the facility · Focusing on QAPI can improve Nursing Home Compare ratings and Quality Measure composite scores	· MDS Coordinator – help lead the effort for QAPI. (Often lead the "Plan of Care" for the residents) · Cross-care planning using the QAPI process and help drive it related to care plans
Pharmacy	· Improving patient outcomes · Frequently data/statistics oriented	· Key role in any projects related to medication (administration procedures, dose reductions, etc.)

Staff Members and Stakeholders	What Motivates Them?	What Can They Do?
Social Services	· Improving resident outcomes · Increasing resident choice · Increasing resident and family satisfaction	· Serve as a communication facilitator with QAPI initiatives by helping family members and residents understand the changes made during the improvement process · Answer questions residents and family may have regarding the improvement process · Serve as a liaison between family, residents, and the improvement process by connecting them to people who can better answer their questions or hear their suggestions
Activities Director	· Improving resident outcomes · Positive resident outcomes could increase participation · Increasing resident and family satisfaction	· Impact activities and play a larger role in PIPs and implementing interventions · Help residents understand the changes made during the improvement process · Answer questions residents and family may have regarding the improvement process · Serve as a liaison between family, residents, and the improvement process by connecting them to people who can better answer their questions or hear their suggestions
Admissions/ Marketing	· High quality service and outcomes improve rating of the facility · QAPI could impact smooth transitions from hospital to facility for resident as well as the referral source and the nurses	· Assist with communication - press releases, audience, branding, messaging, timing to release info (internal and external)
Families	· Improving comprehensive care for loved ones - improved quality, increased trust in facility and care providers, earlier identific tion of problems · Identifying and participating in the process to improve areas seen as needing improvement · Knowledge of what is happening within the facility	· Resident Family Councils & Patient Safety Coalitions can be a part of the QAPI team · As the consumer, offer key input on priorities and areas for improvement · Engage and inform through Family nights that already exist, Family newsletters that already are being sent out

Staff Members and Stakeholders	What Motivates Them?	What Can They Do?
Therapists/ Social Work	· Improved function of the residents · Improved participation in the therapy program	· Integrate participation and feedback into the clinical team discussion
Dietary	· Resident and family satisfaction · Residents maintain healthy weight · Streamline departmental procedures	· Provide feedback and include feedback in QAPI meetings · Serve as eyes and ears during mealtime and report as needed during the improvement process
Corporation Consultants	· QAPI improves quality, can improve Nursing Home Compare Star rating and quality measure scores which becomes a marketing asset · Improving resident and family satisfaction · Overall quality improvement	· Share ideas and successes across facilities within the same corporation · Establish and support a culture of participation, which includes tracking and sharing data at a corporate level

Figure 13: Considerations for Engaging Different Kinds of Staff and Stakeholders at a Nursing Facility in a QAPI Initiative

Action Step 3. Take your QAPI "Pulse" with a Self-Assessment

Facilities should use the *QAPI Self-Assessment Tool* (see *Appendix B* for full website) to establish a baseline of QAPI knowledge and practices at the start of Collaborative participation. The self-assessment should be repeated periodically (i.e., semi-annually, annually) to monitor progress on QAPI practice and culture change at the facility.

Once all members in the Collaborative have completed the assessment, Collaborative leadership can identify common areas for improvement. These can be discussed among members and may provide opportunities for educational sessions at Collaborative meetings. Facilities participating in the Statewide CMS-sponsored Collaborative are required to complete this self-assessment annually. In this project, the Indiana Quality Improvement Organization, Qsource, received completed self-assessments from members and shared aggregated results with Collaborative leadership for this kind of continuing education.

Action Step 4. Identify your Organization's Guiding Principles

Identifying your organization's guiding principles, mission, and vision is crucial to the sustainability of a QAPI program. QAPI is used to make quality improvements to assist an organization in meeting its mission and aligning efforts with guiding principles and vision.

The *CMS Guide for Developing Guiding Principles* (see *Appendix B* for full website) can be used to understand how QAPI will be used and integrated into a facility. It assists in aligning the facility's mission and vision with their QAPI strategy.

Action Step 5. Develop your QAPI Plan

As part of the QAPI process, each facility develops a facility QAPI plan. This plan is a comprehensive document that outlines the facility's plan for establishing and integrating QAPI in their facility. The plan details the people and positions involved and their roles, how QAPI will be utilized for all areas of service for the facility, how all departments will be involved in QAPI, and how data will be utilized. The plan is built on the organization's mission, vision, and guiding principles. Once complete, the plan incorporates all five essential elements, plus the communication and process for evaluation of the plan. CMS has created a *Guide for Developing a QAPI plan* (see *Appendix B* for the full website) to assist facilities in developing their plan.

The QAPI plan is a living document, one that will be evaluated and updated frequently. This plan establishes the overall foundation for QAPI in the facility and guides and supports the development of Process Improvement Projects to address specific identified concerns. As the focus and people involved change and evolve, so should the plan.

Action Step 6. Conduct a QAPI Awareness Campaign

It is important to conduct a QAPI awareness campaign throughout the entire QAPI process. This campaign lets interested parties know that the facility is participating in the Collaborative and working to improve quality through the QAPI process. The campaign should include the benefits of QAPI, an outline of the QAPI work to be done (timeline, topic (once chosen), what changes will be made as a result), and how people can learn more or become involved. Facilities should consider varied communication methods, customized to stakeholders – for instance, families might benefit from an emailed or mailed newsletter, while some groups of staff would be most likely to see a flyer in the lunch room.

Target audiences include:

- **All Facility Staff** – Let them know of coming changes that will impact their daily work and how to be involved in the QAPI process. Use the motivating factors discussed in *Action Step 2. Develop a Deliberate Approach to Teamwork* to tailor the message for each department.
- **Residents and Families** – Residents and families are a critical part of the QAPI process and may have suggestions for improvements. Knowing about and participating in the process can focus efforts to critical areas and improve resident satisfaction.
- **Health Department Surveyors** – Many Collaboratives found it helpful to invite the area surveyor supervisor to attend Collaborative meetings. The lead surveyor frequently had helpful suggestions for areas of improvement, strategies for process changes, and was able to inform local surveyors of the efforts of the Collaborative. This resulted in better understanding of process changes during surveys, and frequently, slight modifications of the survey schedule to allow buildings to participate in Collaborative meetings.
- **Community Members** – Community members are potential customers, donors, and volunteers. Keeping them abreast of QAPI efforts in the facility may make them feel more comfortable about placing a family member – or themselves – in the facility, may help them identify needs for resources they might be able to provide, and may tell them that the facility is a place that would value them as volunteers.

Some of the QAPI Benefits to nursing facilities that can be useful to share in the QAPI Awareness Campaign:

- **QAPI improved resident care during the first round of Regional Collaborative projects in the following ways:**
  - Decreased UTI rates by half
  - Decreased hospitalizations by 40%
  - Decreased falls by nearly 25%
  - Decreased rates of pneumonia by 16%
  - Improved staffing retention and turnover
  - Improved appropriate usage of anti-psychotic medications
- **Projects resulted in a positive impact on quality measures and star ratings – many consumers review these when selecting a facility, and the Indiana system of value-based purchasing is increasingly focusing on quality measures**
- **QAPI created opportunities to engage staff in the collective goal of high quality service for residents**
- **QAPI projects created more efficient work processes**
- **QAPI projects resulted in significant cost savings**

Action Step 7. Develop a Strategy for Collecting and Using QAPI Data

Data are used continually through the QAPI process. Data are reviewed initially to identify problems and challenges to be addressed through PIPs and then are used to prioritize the challenges to address first. Asset mapping may be conducted to identify assets and resources at the facility or Collaborative level that may assist in addressing the challenge. Finally, data will be used to set goals for the PIP, monitor progress, and evaluate the effectiveness of the intervention(s) implemented during the PIP, then determine how to expand the lessons learned systemically.

Figure 14: CMS QAPI Data Cycle

When working in a Collaborative, having a process for members to submit their data to a neutral, non-facility partner is key to open collaboration. Frequently, Area Agencies on Aging or universities and colleges can fill this role. Members submit data to the data processing partner who will then assign a random ID to each facility. This way, data can be looked at in both the aggregate and individually without revealing sensitive information to other facilities. Engaging local universities and colleges is a great way to connect with experts on data, biostatistics, and data analysis, sharing some of the responsibility and tapping into cutting edge data analysis techniques.

Discuss the process and timeline for collecting data with members from the beginning. The data collected and the form in which it is submitted will need to be considered for each type of data and may need to be flexible for facilities. Providing a template or streamlined process will aid in overall data collection. Several Collaboratives created data tracking reports that members submitted each month so that data was consistently reported. A few Collaboratives used online survey tools (such as Survey Monkey) to create online collection tools. Reminders prior to reporting deadlines and publicly thanking members who submitted data during the following meeting were useful processes for encouraging data reporting as well.

Action Step 8. Identify Gaps & Opportunities

There are many ways to identify gaps and opportunities. Choosing which tool is appropriate will vary depending on the task.

- **Brainstorm** – Brainstorming with the entire group or in small groups can be very helpful to generate ideas and discussion. Nominal voting can be used to narrow results.
- **Go to Gemba** – Go to the location in the facility where the work is being done to see the process for yourself and get input from the clinical staff who do the work.
- **Voice of the Customer** – Solicit direct input from facility staff, residents, families and representatives.
- **Needs assessment** - In addition to the QAPI Self-Assessment, facilities and Collaboratives may find it useful to conduct a needs assessment of their members (or individually at the facility level). This can identify areas of need but should also note resources and areas of strength. There are many models to follow for a needs assessment. One that was used in this initiative was the SWOT Analysis which outlines **S**trengths, **W**eaknesses, **O**pportunities & **T**hreats.

Once potential challenges are identified, data must be reviewed to validate whether a problem exists. The Collaborative should consider all available data sources (several are listed below), concentrating on those common to all or a majority of members:

- **National Healthcare Safety Network (CDC)**
- **CMS Website (MDS Data for Quality Rates)**
- **National Consumer Voice (Advocacy)**
- **Call Center and Referral Data (if available)**
- **Topical/Strategic Priorities Data**
- **Research/Literature/White Papers**
- **Surveys/Local Needs Assessments (e.g., United Way)**
- **Nursing Home Associations: LeadingAge, IHCA, HOPE**
- **Resident/Staff Satisfaction Surveys**

- **Internal Tracking**
- **Accountable Care Organization Data**
- **ISDH Report Card**
- **Quality Improvement Organization (Qsource)**
- **Nursing Home Compare (www.medicare.gov/nursinghomecompare/search.html)**
- **Continuous Quality Improvement (CQI): Audit information, resident surveys (verbal)**
- **Resource Utilization Groups (RUGs): Case mix classification, essential for reimbursement**
- **Fall Reports**
- **Transfer Reports**
- **Adverse Events (reportables)**
- **Wound Reports**
- **Infection Reports**
- **Self-assessments, such as the HAI Self-Assessment**

For example, the National Nursing Home Quality Care Collaborative (NNHQCC) Composite Score provides consistent ratings of facilities on the following 13 long-stay quality measures:

1. % of residents with 1+ falls with major injury
2. % of residents with a UTI
3. % of residents who self-report moderate to severe pain
4. % of high-risk residents with pressure ulcer
5. % of low-risk residents with loss of bowels or bladder
6. % of residents with catheter inserted or left in bladder
7. % of residents physically restrained
8. % of residents whose need for help with ADL has increased
9. % of residents who lose too much weight
10. % of residents who have depressive symptoms
11. % of residents who received antipsychotic medications
12. % of residents assessed and appropriately given flu vaccine
13. % of residents assessed and appropriately given Pneumococcal vaccine

The composite score is calculated through an "opportunity model" that illustrates opportunities for improvement in quality. Vaccine measures (#12 and 13) are opposite most measures (higher rates are better), so they are reversed in the composite score calculation so that **lower is always better in a composite score**. To view composite scores for facilities across the country, as well as comparisons to state and national averages, visit *Medicare Nursing Home Compare* (see *Appendix B* for full website).

When reviewing data to identify a problem that might be the subject of a PIP, consider the following:

- **On what measures are we failing, not meeting our goals?**
- **On what measures are we performing worse than our peers?**
- **How do our needs or challenges compare to our vision, mission and strategic plan?**
- **What are our constraints, if any?**

RESOURCE: Data Problem Activity and Data Intervention Worksheets

A facilitator guide and activity worksheets were created to be used in a series of two meetings to identify gaps and their corresponding data sources, prioritize challenges, choose the challenge to address with a PIP, and choose the PIP intervention(s). A summary of these activities is provided below:

MEETING 1

- *Data Problem Worksheet* (*Appendix A11*) sent to Collaborative members prior to the meeting. Facilities review their facility's data, record findings, and identify problem areas. This is brought to Meeting 1.
- Activity 1: Review data sources and findings across facilities
- Activity 2: Prioritize challenges/problems
- Activity 3: Choose a problem/PIP topic

MEETING 2

- *Data Intervention Worksheet* (*Appendix A12*) sent to Collaborative members prior to the meeting. Facilities review data on chosen problem and identify root cause & intervention(s) and the data source for evaluation of the intervention (process measure).
- Activity 4: Review root cause and intervention ideas
- Activity 5: Choose your fix(es)/intervention(s)

Detailed instructions on use of the *Data Problem Worksheet* with Collaborative member facilities are provided in the Facilitator Guide found in *Appendix A13*. Prioritizing challenges and identifying interventions will be discussed in later sections.

Action Step 9. Prioritize and Charter Projects (PIPs)

Prioritize

Collaboratives and facilities can use the information recorded on the Data-Problem Worksheet to prioritize projects at the facility or Collaborative level. Two other methods of prioritizing projects are illustrated below.

PROJECT PRIORITIZATION MATRIX[1]

This matrix allows the QAPI team to rate projects on their strength in multiple areas including financial impact, quality, service to consumers, available resources, and overall connection to the strategic plan.

PROJECT PRIORITIZATION MATRIX

Project #	Project Description	Finance/ Growth	Weighted Score	Quality/ Safety	Weighted Score	Service/ People	Weighted Score	Resources Available	Weighted Score	Strategic Imperative	Weighted Score	TOTAL Weighted Score	Project Priority Ranking
	Weight Factors	Score	30	Score	10	Score	20	Score	15	Score	25		
1	Example Project #1	6	180	6	60	3	60	6	90	9	225	615	3
2	Example Project #2	3	90	9	90	6	120	6	90	3	75	465	3
3			0		0		0		0		0	0	1
4			0		0		0		0		0	0	1
	Scoring: No Impact = 0, Low Impact = 3, Medium Impact = 6, High Impact = 9												

Figure 15: Project Prioritization Matrix

[1] *Reproduced with permission from Evelyn Catt, TTAC Consulting, LLC.*

IMPACT VS. DIFFICULTY GRID[2]

Projects are plotted on this grid based on their impact and level of difficulty to complete. The final plot location determines the order in which projects are pursued.

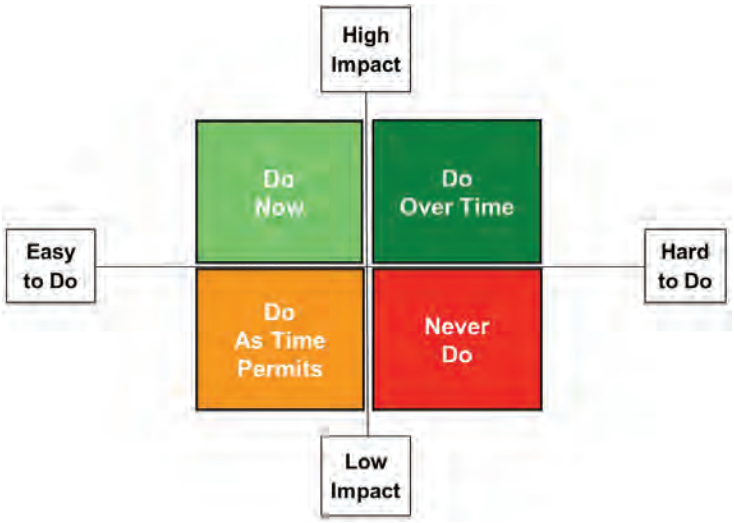


Figure 16: Impact vs. Difficulty Grid (by Time & Impact)

Project Charter

Once the PIP topic is chosen, the Collaborative will create a project charter. The project charter will serve as the guiding document for the Collaborative project. Individual facilities may adjust the Collaborative charter slightly – updating the scope, project team, and materials – to reflect their individual facility and will use this as the contract between leadership and the project team. It is created at the beginning of the project to clarify what is expected of the team. Project charter elements include:

PROBLEM STATEMENT

This is the reason for action; why this project was chosen and why it should be addressed now.

Sample Project Charter problem statements:

- "Rates of residents with UTI exceed the national benchmark and negatively impact CMS composite scores."
- "Only 80% of appropriate residents received a flu vaccine in the last 6 months, which leads to higher rates of illness and decreased quality of life for those impacted."
- "Rates of falls exceed the state average, which leads to poor health outcomes for residents and has a negative impact on CMS Quality Measures."

AIM STATEMENT

What is the Collaborative trying to accomplish? This should be stated as a SMART goal (specific, measureable, achievable, reasonable, timely) and often includes the baseline metric. "We want to improve (metric) from (initial state) to (target state) by (target date)."

Sample Project Charter Aim statements:

- "Reduce the rates of residents with UTI by 10% (from 20% to 10%) in six months."
- "Increase rates of flu vaccine for appropriate residents from current rates of 95% to 99% in three months."
- "Reduces rates of falls to be the same as the state average in four months."

[2] *Reproduced with permission from Evelyn Catt, TTAC Consulting, LLC.*

PROJECT SCOPE

The specifics of the project as related to goals; what is included/excluded. This may be different for each facility as they may target different units/floors/populations within their buildings.

PROJECT METRICS

How you will measure project efforts to show what was achieved. This includes baseline data (initial state). Other metrics to consider are secondary metrics (welcomed side effects), consequential metrics (unwelcomed side effects) and financial (any costs incurred or saved due to the project) metrics. The secondary and consequential metrics may be different across members as they may relate to the specific intervention.

Sample Metrics:

- **Primary Metric** – Rate of UTIs across residents, per the facility infection log
- **Secondary Metric** – Rate of indwelling catheters, per the MDS (interventions related to peri-care, proper catheter use); rate of staff absenteeism (interventions related to hand washing and proper hygiene)
- **Consequential Metric** – Rate of use of hand soap/hand sanitizer across the facility
- **Financial Metric** – Cost of materials used (soap/hand sanitizer, peri-wash, etc.), saving of prevented UTIs

PROJECT TIMELINE

The project timeline will detail start and end points of the project and any milestones along the way.

PROJECT TEAM AND ROLES

The project team outlines who will be involved in the project and their role on the team. This clarifies responsibility and accountability, and ensures all necessary people are included.

MATERIAL RESOURCES REQUIRED

Any materials such as equipment, software, or supplies that will be needed for the project should be included in this section.

BARRIERS

This includes barriers that may impede progress on the project and how to overcome them. Discussing barriers and ways to address them as a group allows members to support and collaborate with each other, increasing the likelihood of avoiding challenges and achieving success for the project.

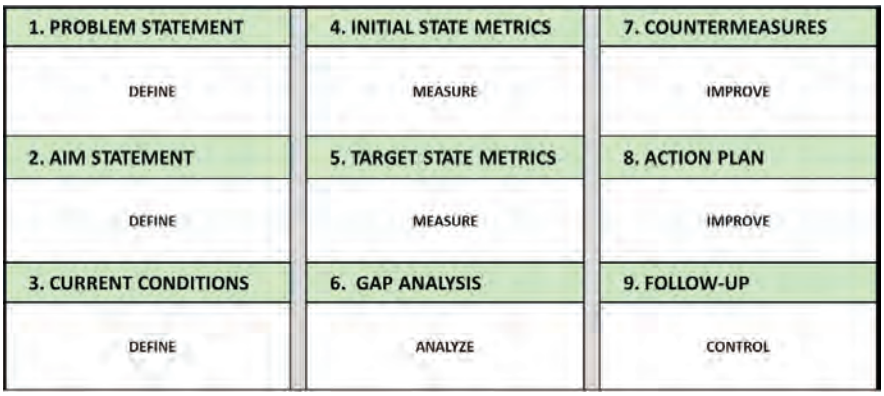
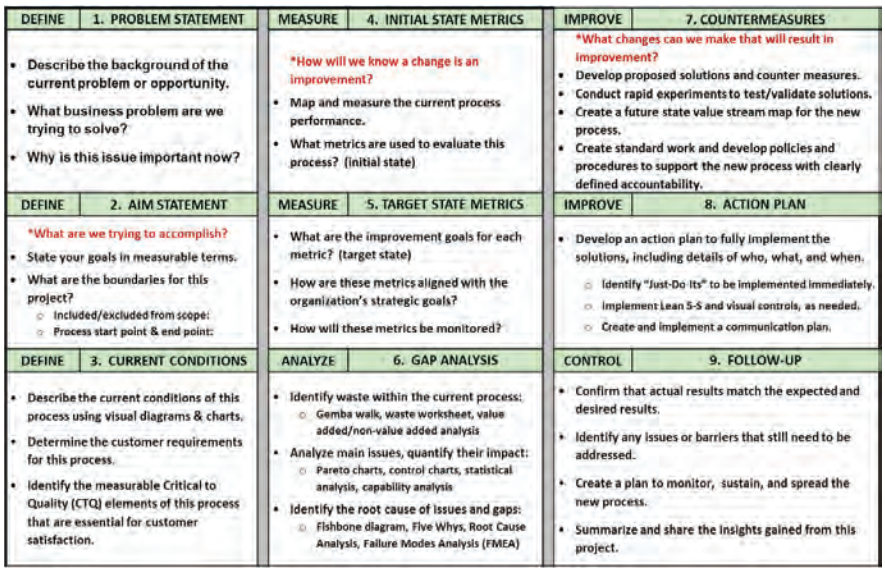


Figure 17: A15 A3 Project Charter Tool

The CMS *Worksheet to Create a Performance Improvement Project Charter* helps facilities develop a charter that includes the elements listed above (see *Appendix B* for the full website). A sample of the version utilized by Collaboratives in this initiative can be found in *Appendix A14*. Traditionally, the Project Charter does not include the interventions or strategies for addressing the identified gap/opportunity. This allows the project team flexibility in determining the best solution based on root cause analysis (discussed in the following sections). For ease of documentation, the Collaborative charter included an additional section that allowed the Collaborative leadership to record the interventions utilized by member facilities.



DEFINE	1. PROBLEM STATEMENT	MEASURE	4. INITIAL STATE METRICS	IMPROVE	7. COUNTERMEASURES
	• Describe the background of the current problem or opportunity. • What business problem are we trying to solve? • Why is this issue important now?		*How will we know a change is an improvement? • Map and measure the current process performance. • What metrics are used to evaluate this process? (initial state)		*What changes can we make that will result in improvement? • Develop proposed solutions and counter measures. • Conduct rapid experiments to test/validate solutions. • Create a future state value stream map for the new process. • Create standard work and develop policies and procedures to support the new process with clearly defined accountability.
DEFINE	2. AIM STATEMENT	MEASURE	5. TARGET STATE METRICS	IMPROVE	8. ACTION PLAN
	*What are we trying to accomplish? • State your goals in measurable terms. • What are the boundaries for this project? ○ Included/excluded from scope: ○ Process start point & end point:		• What are the improvement goals for each metric? (target state) • How are these metrics aligned with the organization's strategic goals? • How will these metrics be monitored?		• Develop an action plan to fully implement the solutions, including details of who, what, and when. ○ Identify "Just-Do Its" to be implemented immediately. ○ Implement Lean 5-S and visual controls, as needed. ○ Create and implement a communication plan.
DEFINE	3. CURRENT CONDITIONS	ANALYZE	6. GAP ANALYSIS	CONTROL	9. FOLLOW-UP
	• Describe the current conditions of this process using visual diagrams & charts. • Determine the customer requirements for this process. • Identify the measurable Critical to Quality (CTQ) elements of this process that are essential for customer satisfaction.		• Identify waste within the current process: ○ Gemba walk, waste worksheet, value added/non-value added analysis • Analyze main issues, quantify their impact: ○ Pareto charts, control charts, statistical analysis, capability analysis • Identify the root cause of issues and gaps: ○ Fishbone diagram, Five Whys, Root Cause Analysis, Failure Modes Analysis (FMEA)		• Confirm that actual results match the expected and desired results. • Identify any issues or barriers that still need to be addressed. • Create a plan to monitor, sustain, and spread the new process. • Summarize and share the insights gained from this project.

Figure 18: A15 A3 Project Charter Tool

The *A3 Project Chart Tool* was first developed as part of the LEAN process improvement system and may be an additional helpful tool for developing Collaborative charters. A copy of the tool can be found in *Appendix A15*[3].

Action Step 10. Plan, Conduct, and Document PIPs (See PIP specific toolkits)

A **project intervention** is a strategy to improve the problem or challenge that is the subject of the PIP. Each facility should review gap analysis results to determine the best type of intervention for the stated problem. Facilities across the Collaborative can test different interventions, but should track results related to each intervention. Collaboratives should seek out evidence-based practices whenever possible, such as those tested in past PIPs (see *Project Specific Toolkits 8-13*). When identifying potential interventions, remember to identify assets and resources – organizational, clinical, and human resources – such as the following:

- **High performers within the Collaborative**
- **Academic resources**
- **Association best practices**
- **Quality Improvement Organization (QIO) resources**

When determining what intervention will be chosen to address the identified problem, it is also important to evaluate the strength of potential interventions. Strong interventions include changes to the process that include a failsafe structure so that anyone completing the process will do so in the correct way. Weaker interventions are person-dependent, such as education and training, and rely on the individual to know the correct procedure. While strong interventions may require more time and resource investment up front, they are generally more sustainable and effective than weaker interventions that must be repeated every time a

[3] *A3 tool provided courtesy of Evelyn Catt, TTAC Consulting, LLC.*

new person is hired. Examples of strong, intermediate, and weak interventions from the *CMS Guidance for Performing Root Cause Analysis (RCA)* with Performance Improvement Projects (PIPs) (see *Appendix B* for full website) are listed below.

Strong	Intermediate	Weak
Change physical surroundings	Increase staffi g/decrease in workload	Double checks
Usability testing of devices before purchasing	Software enhancements/ modific tions	Warnings and labels
Engineering controls into system (forcing functions which force the user to complete an action)	Eliminate/reduce distractions	New procedure/ memorandum/policy
Simplify process and remove unnecessary steps	Checklist/cognitive aid	Training
Standardize equipment or process	Eliminate look alike and sound alike terms	Additional study/analysis
Tangible involvement and action by leadership in support of resident safety; i.e., leaders are seen and heard making or supporting the change	"Read back" to assure clear communication	
	Enhanced documentation/ communication	

Figure 19: CMS Strong, Intermediate, and Weak Intervention Examples

RESOURCE: Data intervention activity worksheet

As introduced previously, the collaborative can use the *Data-Intervention Worksheet* (*Appendix A12*) to facilitate the selection of an intervention(s) for the chosen PIP topic. *The Facilitation Guide* (*Appendix A13*) provides detailed instructions on use of the worksheet to identify interventions.

Action Step 11. Identify the Root Cause of Problems (RCA)

Once a problem has been identified, a variety of tools can be used to identify the root cause(s) that should be addressed with an intervention(s). CMS provides a *Guide to Root Cause Analysis* (see *Appendix B* for full website) within the QAPI program. Specific tools that are helpful include:

- **Brainstorming** - Brainstorming can be used to gather a large amount of input from a group on a complex topic. One of the easiest methods is to allow individuals to write their ideas, one per Post-it note, and post on a whiteboard or flip chart. The facilitator can create an Affinity Diagram by grouping Post-it notes by category, and focus on the categories with the greatest number of Post-it notes. The group can further prioritize ideas using nominal voting (for instance, using a limited number of stickers to "vote" for the ideas they believe hold the most merit). This can be a useful way to begin to research the root cause, when

the overall process seems overwhelming. It is important to then look at data to ground the "gut feelings" identified during the brain storm. Tools for doing so are listed below.

- **Go to "Gemba" Exercise** - *Gemba* in Japanese means "the actual place" or "the real place." Go to "Gemba" to observe the current process in action. **Talk to the people who actually perform the process.** Identify gaps between the current process and customer-defined requirements and develop a strategy to address unmet needs. Identify opportunities to eliminate waste and improve flow.
- **Murphy's Analysis** - A brainstorming tool that helps to identify problem areas and common ways that the current process breaks down or fails (*Appendix A16*).
- **The 5 Whys** - The Five 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 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. Typically, the answer to the first "why" should prompt another "why" and the answer to the second "why" will prompt another and so on; hence the name Five Whys. This technique can help you to quickly determine the root cause of a problem. It's simple, and easy to learn and apply. CMS created the *Five Whys Tool for Root Cause Analysis* (see *Appendix B* for full website). A sample document can be found in *Appendix A17*.
- **Fishbone Diagram** - 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 some other tools available for brainstorming causes of a problem (e.g., the *Five Whys tool*). The problem or effect is displayed at the head or mouth of the fish. Possible contributing causes are listed on the smaller "bones" under various cause categories. A fishbone diagram can be helpful in identifying possible causes for a problem that might not otherwise be considered by directing the team to look at the categories and think of alternative causes. Include team members who have personal knowledge of the processes and systems involved in the problem or event to be investigated. CMS provides a handout on *How to Use the Fishbone Tool for Root Cause Analysis* (see *Appendix B* for full website).

Collaboratives will want to approach root cause analysis from both the Collaborative and individual facility level. Root cause analysis is based on data to ensure the intervention addresses the core issue and may vary among Collaborative members, depending on the issue. Several Collaboratives had success in implementing the same intervention across all members to address a common root cause. In Collaboratives where members chose their intervention individually, small groups were formed by grouping common root causes/interventions. This allowed members to discuss common barriers and ways to overcome the barriers with each other in either situation.

Action Step 12. Take Systemic Action

Systemic change lives beyond the timeline of the PIP. Once the planned timeline is complete, the facility should consider how successful interventions should be continued, reinforced, and expanded, if applicable. If the initial intervention(s) were implemented in a specific unit or floor, successful interventions should be expanded to additional areas of the facility or of the corporate enterprise. The data monitoring cycle established during the PIP should continue to monitor ongoing practice and continually identify new ways to improve outcomes and quality of care. This process of planning, intervening, measuring, and implementing

fully is known as the **Plan | Do | Study | Act** model. Collaboratives may want to continue data reporting and monitoring after the time of focus on any given PIP to ensure the process change is stable and any decreases in quality are quickly identified and addressed.

Figure 20: Plan, Do, Study, Act (PDSA) Model

Celebrate Success

Take time at the end of each PIP to reflect on the effort and celebrate successes. A wrap-up meeting is critical to gather lessons learned that can inform future PIPs and to recognize the hard work that was done throughout the project. Celebrating is as important as documenting – engage partners or vendors to provide refreshments, hand out certificates or another recognition of contributions to the Collaborative. Get creative and have fun!

An important part of documenting the completed PIP and celebrating the Collaborative's accomplishments is telling the story of the PIP through data. Whenever possible, **quantitative data** should be used to tell the story of where the Collaborative began (baseline data) and what they achieved (project-end data) in what context (Collaborative, state and/or national data and benchmarks). In addition, **qualitative information** is important, including documenting data sources and methods, interventions, and lessons learned. Qualitative data can be especially important if the quantitative data do not tell a compelling story on their own – some situations may get worse before they get better, because of increased attention or improved reporting. The qualitative outcomes achieved (improved staff morale, better resident satisfaction scores, new training for staff, etc.) can help demonstrate positive outcomes of the PIP. **Cost savings** are an important part of the quantitative data that should be captured whenever available. Cost savings sources for estimates and/or estimation methods are included in the topic-specific toolkits provided later in the toolkit.

When evaluating the impact of a PIP, the facility and Collaborative should consider both **direct** (intended) and **indirect** (unintended) outcomes of the project. A UTI project may result in reduced infection rates and improved resident satisfaction, which were stated goals of the project. However, the facility may also find that staff morale improves as residents feel better and receive higher quality care, or that other infection rates are reduced as handwashing procedures are improved. Culture changes are extremely important and challenging to accomplish. If culture is changed as a result of a PIP, the shift should be noted, as well as how it was achieved. New skills or knowledge among the staff, such as knowledge of QAPI or root cause analysis, are also important to document.

RESOURCE: Post PIP Press Release

At the end of each PIP, the CAC Communications Manager spoke with the leadership of each collaborative and gathered and helped review information as each Collaborative collected the data. The CAC Communication Manager also assisted in drafting press releases to share the success of the program. Samples are included in *Appendix A18*.

Additional routes of communication were used to announce project success including the CAC listserve, ISDH newsletters, and individual networks of each Collaborative, trade organizations, and university coalitions working on nursing facility quality. Collaboratives were informed of other Collaboratives' successes and progress through monthly webinars and project phase close-out meetings at the end of PIP 1 and PIP 2.

Individually, Collaboratives celebrated success in a variety of ways. All held a meeting at the end of the monitoring period to review the data of the PIP and celebrate the progress made. Several celebrated small successes and each month would hold a raffle for all facilities that submitted data. Contributing facilities and individuals were recognized at monthly meetings.

Transitioning to a new PIP

The documentation of successes from the completed PIP should form the foundation of recruitment communications for the next PIP. Revisit Collaborative structure and procedures, in light of lessons learned from the last PIP, and consider implementing or refining new processes or activities. Since the ground work of QAPI Steps 1-7 had been completed, Collaboratives were able to start at ***Action Step 8 - Identify Gaps & Opportunities***, to find the next area of quality improvement to address. The Collaborative leadership had the option to consider repeating the Eco-Map activity (*Appendix A2*) to reevaluate relationships with current collaborative members and identify new potential partners.

Because QAPI is a model for improving processes, it is important to frame discussions around interventions as on going, sustained changes. As Collaboratives transition to a new PIP, this sustainability should be stressed again. To help support member facility's efforts in sustaining enthusiasm for PIP 1 process changes as they were cemented into facility culture, many Collaboratives continued to track and report data on PIP 1. This helped keep the process "on the radar" and helped to notify facility leaders of backsliding to old habits. Collaboratives continued to celebrate successes and translate quality improvements into financial gain – particularly helpful in motivating ongoing attention to the intervention.

4
Sustainability

4. Sustainability

Sustaining change is critical to the QAPI process and the success of the Collaboratives. For many, full integration of the QAPI model, creating a QAPI culture, and working collaboratively with other facilities is a significant culture change. Collaborative leaders and members alike will want to focus on sustainability in three major areas: the Collaborative, QAPI implementation, and the process changes of each PIP.

Collaborative Sustainability

As the Collaborative forms and works through the QAPI process, there will be ebb and flow of member participation. Regardless, it is important to continually work toward sustainability of the Collaborative and engagement of the members. Collaboratives should keep in mind the following Keys to Sustainability:

- **Encourage open, honest dialogue with ways to work through conflict.**
- **Find common ground, language, and goals.**
- **Keep all members' eyes on the prize (vision, goals, purpose, etc.).**
- **Educate each other about new information.**
- **Orient new members as members leave, move, or rotate off of a committee or the Collaborative.**
  - **Create a packet with information about the Collaborative, QAPI, projects completed (with interventions) and underway.**
- **Revisit roles and responsibilities as activities change.**
- **Always make decisions together when possible – this makes members feel productive and engaged.**
- **Check in with each other to be sure you are on track, and call each other on it, if the group is behind.**
- **Celebrate successes.**
- **Make adjustments to plans, work, and tasks as new issues arise that impact them.**
- **Gather data and communicate your work.**
- **Make your collaborative important and necessary in your community.**
- **Be efficient with collaborative time - well planned and well conducted meetings make the time spent valuable.**
- **Establish a consistent meeting time and send agendas and other meeting materials out at least a week in advance – this lets members best plan for the meeting.**
- **When possible, offer continuing education sessions as part of Collaborative meetings – providing dual benefit for meeting participation.**
- **Utilize technology – several Collaboratives found an online collaborative site (such as offered by Wiggio.com) to be a beneficial way to communicate with and engage members between meetings.**
- **Visits from Collaborative leadership to members and their QAPI teams help connect the efforts and entire process for member facilities.**

QAPI Sustainability

Members who participate in the Collaborative will be responsible for creating a QAPI culture in their facility. For many this will be a significant culture change that will take time and planning for implementation and also for sustainability. One of the keys to sustainability is to engage staff from across member facilities in QAPI efforts. The OPTIMISTIC[4] project team offered the following tips to successfully implement QAPI at the facility level:

- **Start small and build on successes.**
- **Align projects with administrative focus.**
- **Find key champions within the facility.**
- **QAPI team leads need to "believe in it".**
- **Outcomes must make jobs easier rather than more difficult; incentives for staff to contribute to success.**
- **Need QAPI leader to hold team accountable.**
- **When you add something (program/project), you need to take away something.**
- **Continually work to engage all departments in QAPI efforts.**
- **Maintain an open and just culture where all staff are able to contribute to the QAPI process, report. areas for study and potential PIPs, without fear of blame or retribution.**

QAPI PIP Sustainability

Once the PIP intervention has shown to positively impact the process in question, it is important to sustain this intervention as a cemented process change. Choosing strong interventions will help in this regard. The strongest and most effective interventions are those that change the process in failsafe ways so that anyone can follow the correct process. It does not require reminders or put the responsibility on the individual to complete the process in the correct manner. The ease of following the process change enhances its sustainability.

Ongoing monitoring of data trends will enhance PIP sustainability as well. Certainly member facilities should continue to monitor these data and the Collaborative may choose to also continue reporting and analysis of data from each PIP completed after the successive PIP has begun. If trends begin to backslide, this can be caught early and addressed. When discussing root cause and potential interventions, it should be stressed that PIP interventions are permanent process changes, rather than a temporary quick fix and interventions should be chosen accordingly.

[4] Adapted from a presentation to Regional Collaborative leadership, given by Russ Evans and Julie Dabney, in their roles with the OPTMISTIC project – a CMS demonstration grant managed by Indiana University.

5

Reducing Antipsychotic Use Toolkit

5. Reducing Antipsychotic Use Toolkit

Congratulations on forming your Collaborative for Quality Improvement in Long Term Care! We hope the toolkit was helpful in establishing your Collaborative and in learning about and working through the CMS Quality Assurance and Performance Improvement model (QAPI). As part of *Action Step 8. Identify Gaps & Opportunities*, your Collaborative will have created a list of opportunities for performance improvement and will have prioritized these opportunities as the beginning of *Action Step 9. Prioritize and Charter Projects (PIPs)*. This section will walk through Action Steps 9-12 for a project focused on reducing the rates of **antipsychotic medication use** in nursing facilities. Recommendations are based on the experience of the 2015-2016 Regional Healthcare Quality Improvement Collaboratives, specifically the East Central Indiana Collaborative (ECIC) and the Southwestern Indiana Collaborative for Performance Improvement (SWICPI).

Action Step 9. Prioritize and Charter Projects (PIPs)

Once you have prioritized reducing rates of antipsychotic medication use as an opportunity to be addressed by your Collaborative, you will need to create a project charter, which will serve as the guiding document for the Collaborative project. Individual facilities may adjust the Collaborative project charter slightly – updating the scope, project team, and materials – to reflect their individual facility and will use this as the contract between leadership and the project team. The project charter is created at the beginning of the project to clarify what is expected of the team. For a full discussion of developing a project charter, see the previous section *Utilizing QAPI as a Collaborative, Action Step 9. Prioritize and Charter Projects (PIPs)*. The discussion below will focus on creating a charter for a project to address reducing rates of antipsychotic medication use.

PROBLEM STATEMENT

The problem statement is the reason for action; why this project was chosen and why it should be addressed now.

Sample problem statement for reducing rates of antipsychotic use:

- The Collaborative determined that antipsychotic use in facilities was above the state average of 6%, reflecting an overutilization. Overuse of antipsychotic medication leads to polypharmacy complications, unnecessary weight gain or loss, mood changes and decrease in alertness, while also impacting facility health care costs and CMS quality measures.

BACKGROUND

This is the background leading up to the need for this specific project.

Sample background for a project to reduce use of antipsychotics:
Over 25% of patients in nursing facilities nationwide are receiving antipsychotic medications, according to data from CASPER[5]. Antipsychotic medications can assist with managing several detrimental afflictions, such as schizophrenia, delusions, and hallucinations. Antipsychotic medications become problematic when inappropriately prescribed or added without consideration of interactions with other medications, contributing to polypharmacy. The 2004 US National Nursing Home Survey estimates rates of polypharmacy

[5] *Antipsychotic Medication Use in Nursing Facility Residents | American Society of Consultant Pharmacists. (n.d.). Retrieved from https://www.ascp.com/articles/antipsychotic-medication-use-nursing-facility-residents.*

in nursing facilities at 40%[6]. Not only can antipsychotic overuse lead to unnecessary negative side effects for the resident, it can also negatively affect the facility, impacting CMS quality measures which influence facility five star ratings, marketing strategies, and reimbursement rates.

AIM STATEMENT

The aim statement answers the question "What is the Collaborative trying to accomplish?" This should be stated as a SMART goal (specific, measureable, achievable, reasonable, and timely) and often includes the baseline metric. "We want to improve (metric) from (initial state) to (target state) by (target date)."

Sample aim statements for reducing rates of antipsychotic use:

- **Our Collaborative aims to collectively reduce the rate of antipsychotic use from 8% to below the state average (6%), from January 1, 2016 to May 1, 2016.**
- **Our Collaborative aims to collectively reduce antipsychotic use by 10% or more (from 14.2% to 12.8% or less) by June 2016.**

PROJECT SCOPE

The project scope outlines the specifics of the project as related to goals; what is included/excluded. This may be different for each facility as they may target different units/floors/populations within their buildings.

Sample project scope statements for reducing rates of antipsychotic use:

- **Facilities should analyze their data at the level of floor/unit/population to see where the highest rates of antipsychotics are within the facility. The project should focus on this area first for the greatest impact. For example, several Collaboratives found that rates of antipsychotics were highest on their Dementia units.**
- **When establishing scope for a project on reducing antipsychotics, the scope and related data should exclude any resident with a diagnosis for which antipsychotics are deemed medically appropriate. At the time of the Collaborative PIP, FDA approved diagnoses are schizophrenia, Huntington's and Tourette's.**

PROJECT METRICS

Project metrics tell how you will measure project efforts to show what was achieved. This includes baseline data (initial state). Other metrics to consider are secondary metrics (welcomed side effects), consequential metrics (unwelcomed side effects) and financial (any costs incurred or saved due to the project) metrics. The secondary and consequential metrics may be different across members as they may relate to the specific intervention. Previously, Collaboratives tracked and reported metrics as an average of all participating members. This allowed for group cohesion, a shared goal, and cleaner reporting of project outcomes. It also may blur outcomes as stronger performing members may "pick up the slack" for poorer performing members. Each Collaborative should decide if they will look at these metrics averaged across all members or by individual member facility.

[6] Dwyer, L. L., Han, B., Woodwell, D. A., & Rechtsteiner, E. A. (2010). Polypharmacy in nursing home residents in the United States: Results of the 2004 National Nursing Home Survey [Abstract]. The American Journal of Geriatric Pharmacotherapy, 8(1), 63-72. doi:10.1016/j.amjopharm.2010.01.001

Sample project metrics for reducing rates of antipsychotic use:

- **Primary Metric** – This is the main indicator to be measured. It defines the project goal, measures baseline and improvement at end of project. Sample metrics for reduction in antipsychotic use:

  Metric: Rate of residents without FDA approved diagnosis receiving antipsychotic medications
  Calculation: # of residents without FDA approved diagnosis receiving antipsychotic medications /# of residents
  Baseline: Rate of residents without FDA approved diagnosis receiving antipsychotic medications prior to the start of the project
  Data Source: Medication Administration Report (MAR). The MAR is a common and preexisting data source across facilities.
  Additional Considerations: Facilities will likely need to calculate the total number of residents receiving antipsychotic medications and subtract those with an appropriate diagnosis.
  This metric does not fully account for gradual dose reductions (GDRs) which are a common first step toward weaning a resident off a medication. One Collaborative tracked attempted, successful, and failed GDRs monthly for their project as well.

  Metric: Doses of antipsychotic medications administered to all residents
  Calculation: # of doses of antipsychotic medications administered
  Baseline: # of doses of antipsychotic medications administered prior to the start of the project
  Data Source: Medication Administration Report (MAR). The MAR is a common and preexisting data source across facilities.
  Additional Considerations: Collaboratives will want to consider whether or not to exclude residents with an appropriate diagnosis from the scope when using this metric. This metric allows for better tracking of GDRs, which may be appropriate for residents with appropriate diagnoses.

- **Secondary Metric** – This metric captures, validates, and tracks welcome side effects of the project. This may vary among participating facilities due to different interventions.

  Metric: CMS quality measure for antipsychotic medication use (Percent of long-stay residents who received an antipsychotic medication)
  Calculation: Total # of long stay residents who received an antipsychotic medication/
  Total # of residents
  Baseline: CMS quality measure for antipsychotic medication use prior to the start of the project
  Data Source: CMS quality measure reports, QIO
  Additional Considerations: Collaboratives can utilize their QIO to track this data rather than calculating themselves. There is a time delay for the availability of this information.

- **Consequential Metric** – This metric captures, validates, and tracks unwelcome side effects of the project. This may differ among participating facilities due to different interventions.
  Metric: Challenging behaviors among residents
  Calculation: Total number of behaviors
  Baseline: Total number of behaviors prior to project intervention
  Data Source: Minimum data set (MDS) and social service progress notes
  Additional Considerations: A multiple month average of the number of behaviors will be a more reliable and steady measure of this metric than a single month count.

- **Financial Metric** – This metric links project progress to financial outcomes.
  Metric: Cost of antipsychotic medications
  Calculation: Cost per dosage x number of dosages administered
  Baseline: Cost of antipsychotic medications prior to the start of the project
  Data Source: MAR, pharmacy report
  Additional Considerations: Costs saved can be calculated by subtracting the cost of actual medications given from the cost of expected medications.

PROJECT TIMELINE

The project timeline will detail start and end points of the project and milestones along the way.

Collaboratives found that an antipsychotic medication-focused PIP required three to six months to plan and initiate and at least three months after initial implementation to be able to observe a shift in use. Longer initiation phase would have been helpful in preparing for interventions such as training staff to better handle challenging behaviors which may prevent antipsychotic prescriptions or easy the transition as dosages are reduced. Three months of implementation did produce positive results, but a longer implementation period would generate a more accurate analysis of the impact.

PROJECT TEAM AND ROLES

The project team outlines who will be involved in the project and what will be their role on the team. This clarifies responsibility and accountability, and ensures all necessary participants are included. For a PIP on reducing rates of antipsychotic medication it is recommended that the project team include the facilities' medical directors and pharmacists because changes in use of medication will require the support from medical leadership. Additionally, the project team should include all levels of nursing staff to understand the plan, know how to communicate progress, and especially for front line staff, provide input on how to implement process changes in the daily care of residents.

MATERIAL RESOURCES REQUIRED

Any materials such as equipment, software, or supplies that will be needed for the project should be included in this section. This will likely be intervention dependent and this may include:

- **Software to assist the Collaborative in submitting and tracking data**
- **New forms if the intervention looks at adjusting the admissions process to assess antipsychotic usage**

BARRIERS

This includes barriers that may impede progress on the project and how to overcome them. Discussing barriers and ways to address them as a group allows members to support and collaborate with each other, increasing the likelihood of avoiding challenges and achieving success for the project.

Collaboratives encountered the following barriers in their antipsychotic medications PIPs:

Barrier	Ways to Address the Barrier
Obtaining accurate data from all members	· Provide a consistent tracking tool for all members from the start. · Remind members frequently about data submission deadlines. · Publicly thank members who have submitted data at each Collaborative meeting. · Set expectations and require that facilities turn in all data to be included as a project member.
Family resistance to medication changes	· Provide education for families. · Engage families in the QAPI process.
Physician resistance to medication changes	· Provide education for physicians. · Engage physicians in the QAPI process. · Work with staff on how to communicate challenges and strategies for handling challenging behaviors. If staff can confi ently express the problem and a plan to address it, physicians may be more likely to wait on prescribing antipsychotic medications.
Nursing staff resistance to medication changes	· Provide education for staff on how to manage resulting challenging behaviors. · Support at all levels of facility staff and administration.

Action Step 10. Plan, Conduct, and Document PIPs

A **project intervention** is a strategy to improve the problem or challenge that is the subject of the PIP. Each facility should review gap analysis results to determine the best type of intervention for the stated problem. Facilities across the Collaborative can test different interventions, but should track results related to each intervention. Collaboratives should seek out evidence-based practices whenever possible. When identifying potential interventions, remember to identify assets and resources and evaluate the strength and sustainability of the intervention. For more discussion on Action Step 10, see the previous section *Utilizing QAPI as a Collaborative*.

RESOURCE: Data intervention activity worksheet

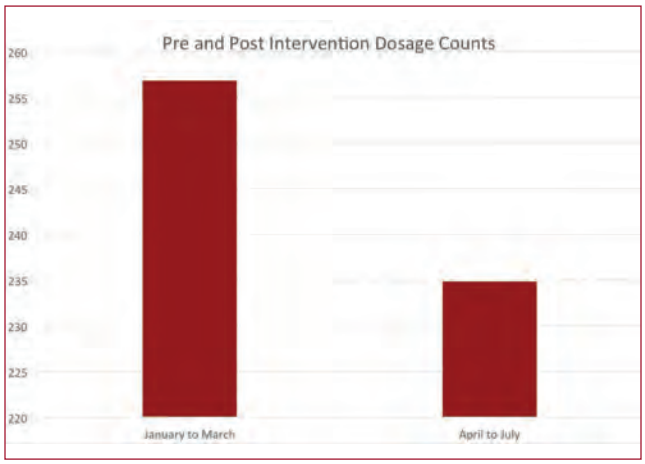
As introduced previously, the collaborative can use the ***Data-Intervention Worksheet*** *(Appendix A12)* to facilitate the selection of an intervention(s) for the chosen PIP topic. The ***Facilitation Guide*** *(Appendix A13)* provides detailed instructions on use of the worksheet to identify interventions.

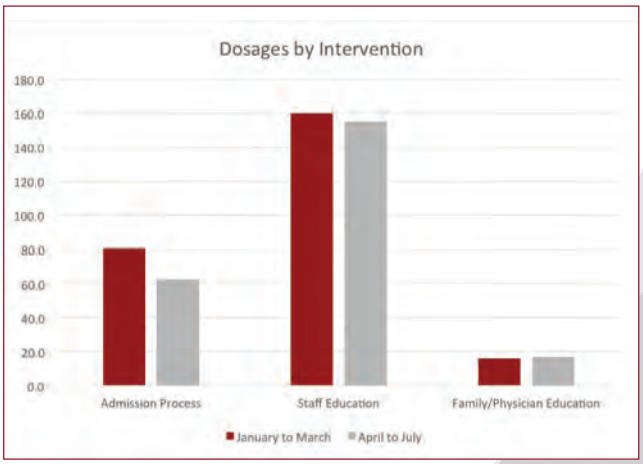
Interventions utilized in previous Collaborative PIPs related to reduction of antipsychotic medication use are detailed in the following chart.

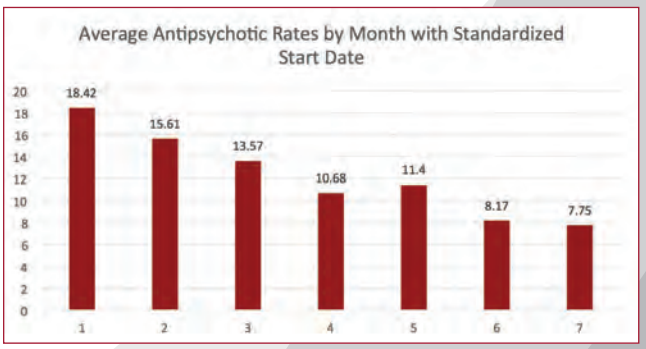
Region	Intervention	Intervention Metrics and/or Description	Outcomes
ECIC	Improve Intake/Periodic GDR Meetings	In-depth review at admission instead of day 7 or 21, including root cause analysis of reason for medication to look for reduction opportunities. Gradual dose reduction (GDR) meetings to review each resident every 3 months, review of previous facilities and physician offic s, referrals for all residents on antipsychotics to behavioral health.	1 facility – no GDR changes 1 facility – GDR from 20.3% to 11.6%
ECIC & SWICPI	Family/ Physician Education	Utilize the CMS National Partnership resources to improve dementia care in nursing homes. Ongoing MD/family education using scenarios and success stories; referral meetings with psych services. Suggested GDR for new admits with no documented behaviors at 14 days. If no GDR, then medical director was asked to review to change meds.	1 facility – 3 patients to 2 using antipsychotics 1 facility – GDRs were implemented 1 facility – no GDR changes *SWICPI data not reported at intervention level.*
ECIC & SWICPI	Staff Education	Educated staff about alternative methods of dealing with behaviors. Administration to attend dementia training so they could train staff on alternatives to medication for dementia residents, including Part 1 of dementia training with all staff (Teepa Snow training). Behavior education memo to staff on triggers and specific ocumentation on interventions completed. Department heads to review behavior memos daily and conduct monthly review with pharmacy. Educated ancillary staff on behavior management methods and GDRs. Trained staff to use in-depth corporate proprietary materials regarding behaviors and think outside the box for alternate interventions.	6 facilities – no GDR changes or patients removed from antipsychotics However, due to education, staff felt more empowered, had more buy-in, and understood the resident's point-of-view better *SWICPI data not reported at intervention level.*

Region	Intervention	Intervention Metrics and/or Description	Outcomes
SWICPI	Pain Assessment	Nursing to provide a pain assessment prior to giving antipsychotics.	Outcomes not reported at the intervention level.
SWICPI	Personal Interest Box	Staff to give a resident a Personal Interest Box PRN to assist with decreasing behaviors.	
SWICPI	Nurse Questionnaire	Questionnaire for nurse to fill ut prior to calling the MD along with monthly behavior meetings and increased resident activities for behaviors while increasing MD turnaround time/response to pharmacy recommended GDRs.	
SWICPI	Monthly Meetings	Conduct monthly meetings with pharmacist, infection control, unit directors, SS, QAPI, DON, ADON to investigate new antipsychotics initiated and investigate behaviors.	

Data display and visualization can help facilities understand the successes they have achieved and any missed opportunities. The following charts summarize antipsychotic dosages across the Collaborative pre and post intervention, by intervention type, and monthly rates.







Action Step 11. Identify the Root Cause of Problems (RCA)

Once a problem has been identified, a variety of tools can be used to identify the root cause(s) that should be addressed with an intervention(s). CMS provides a *Guide to Root Cause Analysis* (see *Appendix B* for full website) within the QAPI program.

Collaboratives will want to approach root cause analysis from both the Collaborative and individual facility level. Root cause analysis is based on data to ensure the intervention addresses the core issue and may vary among Collaborative members, depending on the issue. Several Collaboratives had success in implementing the same intervention across all members to address a common root cause. In Collaboratives where members chose their intervention individually, small groups were formed by grouping common root causes/ interventions. This allowed members to discuss common barriers and ways to overcome the barriers with each other in either situation. For more discussion on *Action Step 11*, see the previous section *Utilizing QAPI as a Collaborative*.

IMPORTANT NOTE: The most frequently encountered barrier to a Collaborative's success was overcoming biases and preconceived ideas about the root cause of a problem. It is critical that a true focused and data-based root cause analysis be completed by each facility for each PIP. Although Collaborative members may discuss the "how-to" of root cause analysis and brainstorm possible root causes of a particular challenge, the actual root cause must be validated by PIP data.

BEWARE: LISTEN TO YOUR DATA!

We observed that Collaboratives often prematurely identified ASSUMED root causes for problems prior to a detailed analysis of the data. Once data analysis was conducted, other root causes frequently emerged and the assumptions were shown to be incorrect.

Action Step 12. Take Systemic Action

Systemic change lives beyond the timeline of the PIP. Once the planned timeline is complete, the facility should consider how successful interventions should be continued, reinforced, and expanded, if applicable. If the initial intervention(s) were implemented in a specific unit or floor, successful interventions should be expanded to additional areas of the facility or of the corporate enterprise. The facility should also consider which interventions were not successful. If initial interventions did not produce desired results. Collaboratives and facilities should reassess the root cause, strength of the intervention chosen and if the intervention was implemented as planned. Facilities should continue to monitor ongoing practice and continually identify new ways to improve outcomes and quality of care. This process of planning, intervening, measuring, and implementing fully is known as the **Plan | Do | Study | Act** model. Collaboratives may want to continue data reporting and monitoring after the time of focus on any given PIP to ensure the process change is stable and any decreases in quality are quickly identified and addressed.

6

Improving CNA Staffing Toolkit

6. Improving CNA Staffing Toolkit

Congratulations on forming your Collaborative for Quality Improvement in Long Term Care! We hope the toolkit was helpful in establishing your Collaborative and in learning about and working through the CMS Quality Assurance and Performance Improvement model (QAPI). As part of *Action Step 8. Identify Gaps & Opportunities*, your Collaborative will have created a list of opportunities for performance improvement and will have prioritized these opportunities as the beginning of *Action Step 9. Prioritize and Charter Projects (PIPs)*. This section will walk through Action Steps 9–12 for a project focused on improving CNA staffing in nursing facilities. Recommendations are based on the experience of the 2015–2016 Regional Healthcare Quality Improvement Collaboratives, specifically Central Indiana Nursing Home Improvement Collaborative (CINHIC), Community Care Connections (CCC), North Central Indiana Quality Improvement Collaborative (NCIQIC), and Quality Improvement Collaborative of Northeast Indiana (QICNE).

Action Step 9. Prioritize and Charter Projects (PIPs)

Once you have prioritized improving CNA staffing as an opportunity to be addressed by your Collaborative, a Collaborative Project Charter will need to be created. The project charter will serve as the guiding document for the Collaborative project. Individual facilities may adjust the Collaborative Charter slightly – updating the scope, project team, and materials – to reflect their individual facility and will use this as the contract between leadership and the project team. The project charter is created at the beginning of the project to clarify what is expected of the team. For a full discussion of developing a project charter, see the previous section *Utilizing QAPI as a Collaborative, Action Step 9. Prioritize and Charter Projects (PIPs)*. The discussion below will focus on creating a charter for a project to improve CNA staffing.

PROBLEM STATEMENT

The problem statement is the reason for action; why this project was chosen and why it should be addressed now.

Sample problem statements for improving CNA staffing:

- **The Collaborative determined that the average CNA turnover rate is 74%, which is remarkably high and undoubtedly impacts the quality of care. High turnover contributes to low facility star ratings, high facility costs, staff and resident dissatisfaction, and ultimately diminished quality of care provided to residents.**
- **Turnover rates of CNAs are high (54%), leading to high costs, staff and resident dissatisfaction, and poor health outcomes.**
- **Staff satisfaction and teamwork among the Collaborative facilities are low which is contributing to turnover and vacancies that further impact staff satisfaction, facility star ratings, and ultimately the quality of care provided to residents.**

BACKGROUND

This is the background leading up to the need for this specific project. The background for a CNA staffing turnover project could include surveys taken among staff members or discussions with HR about staffing levels.

Sample background for a project to improve CNA staffing:

- Turnover among CNAs in long term care is high across the country. Our Collaborative has identified that CNA turnover is not only costly to the facility, but it also directly affects staff by requiring overtime work. Surveys were completed by CNAs in February 2016 which indicated dissatisfaction with teamwork, management, and the feedback and appreciation they are receiving. The collaborative also has identified that turnover affects the nursing home quality measures and overall health outcomes, ultimately affecting the residents.

CNA terminations accounted for 74% of the Collaborative's turnover, according to baseline data collected from the participating facilities. The largest amount of turnover is occurring within the first 6 months of employment, but especially within the first 90 days after hire. CNAs had one of the lowest satisfaction rankings, more than likely due to turnover, therefore creating lack of morale.

There are several reasons turnover has become an overbearing burden, one being the rise in acuity and shortened hospital stay, making nurse-to-patient ratios problematic[7]. Due to these issues, CNAs often experience burnout and fatigue, which can also lead to dangerous and unnecessary medical errors. It is the hope that by addressing these issues, the Collaborative can improve care provided to residents but to also improve CNA job satisfaction and retention. By improving retention, we anticipate drastic improvement in the quality of care provided, as well as facility costs related to turnover and termination.

AIM STATEMENT

The aim statement answers the question "What is the Collaborative trying to accomplish?" This should be stated as a SMART goal (specific, measureable, achievable, reasonable, and timely) and often includes the baseline metric. "We want to improve (metric) from (initial state) to (target state) by (target date)."

Sample aim statements for improving CNA staffing and turnover rates are seen below:

- **The Collaborative aims to collectively reduce the turnover rate among newly hired CNAs who started between April 1 and May 31, 2016 by 20% (from 74% to 59%) and improve the overall satisfaction ranking among all CNAs (new hires and existing) by a minimum of 10%.**
- **Involve all staff within the nursing facility to reduce CNA turnover by 5% from our initial rate of 6.13%, by the end of June 2016 starting in April 2016.**

PROJECT SCOPE

The project scope outlines the specifics of the project as related to goals; what is included/excluded. This may be different for each facility as they may target different units/floors/populations within their building. For CNA staffing projects, facilities may define their scope by length of employment or types of staff.

Sample project scope statements for improving CNA staffing:

- **This project will run from April 1 – May 31, 2016 and will include CNAs in the Collaborative facilities. The turnover rate will specifically look at the newly hired CNAs and the satisfaction ranking will account for newly hired and existing CNAs.**

[7] *Nurse Staffing. (n.d.). Retrieved August 24, 2016, from http://www.nursingworld.org/nursestaffing*

- **This project will run from April 1, 2016 through June 30, 2016 and will involve all staff within the nursing facilities.**
- **This project will run from April 1 – June 30, 2016 and includes focusing on CNA staff after they have completed clinicals.**

PROJECT METRICS

Project metrics tell how you will measure project efforts to show what was achieved. This includes baseline data (initial state). Other metrics to consider are secondary metrics (welcomed side effects), consequential metrics (unwelcomed side effects) and financial (any costs incurred or saved due to the project) metrics. The secondary and consequential metrics may be different across members as they may relate to the specific intervention. Previously, Collaboratives tracked and reported metrics as an average of all participating members. This allowed for group cohesion, a shared goal, and cleaner reporting of project outcomes. It also may blur outcomes as stronger performing members may "pick up the slack" for poorer performing members. Each Collaborative should decide if they will look at these metrics averaged across all members or by individual member facility. It is important, however, that a standard metric or calculation is identified so that data collection from each facility is identical when trying to average across the Collaborative. Below are some sample metrics used by some of the Collaboratives focused on improving CNA staffing:

- **Primary Metric** – This is the main indicator to be measured. It defines the project goal and measures baseline and improvement at end of project.

  Metric: Turnover rate of CNAs

  Calculation: # of CNAs terminated during stated time period / average # of CNAs during the time period

  Baseline: Turnover rate of CNAs during the same time period as the project in an earlier year

  Data Source: HR Employment records and turnover calculations

  Additional Considerations: CNA staffing has seasonal variations (spring and summer turnover tend to be higher than fall and winter) thus data from the same time period during an earlier year will give a more accurate assessment of progress. Additionally, a multi-month average provides a more stable baseline than a single month. Various staffing levels, not just CNAs, can be evaluated.

- **Secondary Metric** – This metric captures, validates, and tracks welcome side effects of the project. This may differ among participating facilities due to different interventions.

  Metric: Overall facility turnover rates and the CMS Quality Star Rating for Staffing

  Calculation: Total number of terminations among staff / average number of staff during the period

  Baseline: Turnover rate of all staff during the same time period as the project in an earlier year

  Data Source: HR Employment records and turnover calculations

- **Additional Secondary Metric** – This metric captures, validates, and tracks welcome side effects of the project. This may differ among participating facilities due to different interventions.

  Metric: Increase staff satisfaction rates and an increase in ABAQUIS (Survey Quality Management System)

Calculation: Calculated from individual Collaborative Staff Satisfaction Surveys and the ABAQUIS resident and family satisfaction scores
Baseline: Staff satisfaction and ABAQUIS rates prior to the intervention period
Data Source: CNA and staff satisfaction surveys, exit interview tracking form, wage surveys

- **Consequential Metric** – This metric captures, validates, and tracks unwelcome side effects of the project. This may differ among participating facilities due to different interventions.
  Metric: Veteran staff satisfaction (when implementing interventions with new staff)
  Calculation: Calculate veteran staff satisfaction rate from survey
  Baseline: Veteran staff satisfaction results prior to the intervention period
  Data Source: Staff satisfaction surveys

- **Financial Metric** – This metric links project progress to financial outcomes.
  Metric: Average cost to replace a CNA
  Calculation: Facilities should identify all direct and indirect costs of recruiting and onboarding new staff. See two *Cost Calculator* examples at the end of this section.
    - One Collaborative in this PIP identified the average cost to replace a CNA, from all facility data, to be $3,016.50. This is used to calculate costs incurred for replacement hires and, potentially, costs avoided through reduced turnover.

  Secondary Metric(s): Reduction in staff overtime and the reduction in labor hours for HR Director and Floor Staff Trainers are secondary metrics that may also have a financial impact on facilities.

PROJECT TIMELINE

The project timeline will detail start and end points of the project and milestones along the way. Collaboratives found that three to six months to plan and initiate a staffing focused PIP and three months after initial implementation were insufficient. Staffing turnover improvements, and satisfaction rate improvement, is a topic that needs to be looked at over a longer period of time. Collaboratives suggested gathering baseline data, implementing interventions, and recalculating and surveying the staff rates over a six to 12-month period. This allows potential interventions and process changes to take effect.

PROJECT TEAM AND ROLES

The project team outlines who will be involved in the project and what will be their role on the team. This clarifies responsibility and accountability, and ensures all necessary people are included. For a PIP on improving CNA staffing, it is recommended that the project team include the facility's HR Director and designated Quality Manager or QAPI individual. These individuals will be important for collecting data, assisting with administering the survey to all staff at facilities, and helping to improve processes that will impact the work culture within a facility. Including representatives from the cohort of staff that is the focus of the project (i.e., CNAs) is critical to root cause analysis and staff buy-in for interventions.

MATERIAL RESOURCES REQUIRED

Any materials such as equipment, software, or supplies that will be needed for the project should be included in this section. This will likely be intervention dependent. This may include:

- **Available wage/salary data for facility and peer institutions to compare rates**
- **Staffing tracking log (see end of section)**
- **CNA-specific staffing survey (pre and post interventions) (see end of section)**
- **Overall staff satisfaction survey (pre and post interventions) (see end of section)**
- **CNA turnover cost calculator (see end of section)**
- **Items to encourage participation in surveys and to boost morale, such as gift cards, newsletters, and recognition certificates.**

BARRIERS

This includes barriers that may impede progress on the project and how to overcome them. Discussing barriers and ways to address them as a group allows members to support and collaborate with each other, increasing the likelihood of avoiding challenges and achieving success for the project.

Collaboratives encountered the following barriers in their improving CNA staffing PIP:

Barrier	Ways to Address the Barrier
Obtaining accurate data from all members	· Provide a consistent tracking tool for all members from the start. · Remind members frequently about data submission deadlines. · Publicly thank members who have submitted data at each Collaborative meeting. · Set expectations and require that facilities turn in all data to be included as a project member.
CNA Clinical test is difficult, leading to higher turnover among the newly hired CNA staff.	· Create a mentorship program at facilities through practice tests and study sessions with experienced staff.
State Survey Impact	· Consider the impact on project timelines for interventions that State Survey will have. This leads to less time for collecting data and implementing interventions.
Lack of opportunities to discuss staff challenges	· Consider creating a CNA Networking Group within the Collaborative to meet monthly and offer learning and sharing among CNA staff and supervisors. · Offer additional educational and networking opportunities (lunch-n-learns) to bring staff together. · Promote an “all-teach, all-learn” environment. Include CNAs in leadership meetings to see how their role impacts the larger facility and can help generate questions.
Resistance from experienced individuals who ‘know’ QAPI	· Linking each QAPI step to actions taken in the Collaborative will help remind veteran staff members who may know QAPI, but may not have implemented a QAPI PIP.

Action Step 10. Plan, Conduct, and Document PIPs

A **project intervention** is a strategy to improve the problem or challenge that is the subject of the PIP. Each facility should review gap analysis results to determine the best type of intervention for the stated problem. Facilities across the Collaborative can test different interventions, but should track results related to each intervention. Collaboratives should seek out evidence-based practices whenever possible. When identifying potential interventions, remember to identify assets and resources and evaluate the strength and sustainability of the intervention. For more discussion on *Action Step 10*, see the previous section *Utilizing QAPI as a Collaborative*.

RESOURCE: Data intervention activity worksheet

As introduced previously, the Collaborative can use the *Data-Intervention Worksheet* (*Appendix A12*) to facilitate the selection of an intervention(s) for the chosen PIP topic. *The Facilitation Guide* (*Appendix A13*) provides detailed instructions on use of the worksheet to identify interventions.

Interventions utilized in previous Collaborative PIPs are detailed in the following chart:

Region	Intervention	Intervention Metrics and/or Description
CINHIC	Increase Pay	Look at comparative rates and discuss options to increase pay.
CINHIC	Employee Appreciation Activities	Organize and conduct cookouts, invite food trucks, participate in Alzheimer's Longest Day, etc.
CINHIC	Break Room Modific tions	Addition of games and new refrigerator to break room.
CINHIC	Mentorship Program	Partner new-hires with existing staff and roles
CCC	CNA and Administration Engagement	Facility administration will engage new hire CNAs in 4 meetings during their fi st 4 weeks in the facility using the staffi g tracking log.
CCC	Monitor Staffi g Rates	Facility administrators will continue tracking their staffi g and turnover rates, along with star rating for staffi g, and submit monthly. Track CNAs hired after April 1 to monitor separate turnover rate within fi st 90 days.
CCC	Staff Satisfaction Survey	All CNAs will complete a staff satisfaction survey to determine their level of satisfaction and gauge improvement to the group at all levels.
NCIQIC	Orientation Activities	Increase activities surrounding new orientation, such as Executive Director hand write welcome letters to new staff and mail to home address; extend orientation length; add department shadowing to increase understanding of patient care.
NCIQIC	Exit Interviews	Human Resources to follow-up with employees who left the facility voluntarily or non-voluntarily.

Region	Intervention	Intervention Metrics and/or Description
NCIQIC	Employee Referral Program	Provide $50 at 90-day retention to employee who referred and $50 at 180-day retention.
NCIQIC	Employee Appreciation	Create and establish new programs for employees such as, a meal program (establish a meal committee to look at food cart options); conduct monthly employee appreciation events; initiate an employee culture committee; change policies to offer leftover food to employees before throwing out.
NCIQIC	Team Huddles	Every shift, roll out a team huddle to discuss communication, changes, mission statement, affi mation, and patient care.
QINCE	Exit Interview	Create a tracking form to be used when staff leave to collect data on the reasons for leaving.
QICNE	Attendance & Shift Bonus	Staff with no absences or tardies in a one-month period will receive bonus money; or will have attendance points reduced. Provide bonuses for picking up shifts last minute.
QICNE	Improved Communication	Involve CNAs in care plan and living well meetings; establish a form to solicit feedback for all shifts (suggestion box); monthly staff newsletter; and educate on crucial conversations and team huddles.
QICNE	Employee Recognition	Hold raffl s at monthly in-services recognizing people who did something amazing; send personal cards; post monthly birthdays; establish a staff bulletin board; create a recognition board or employee recognition committee for staff; collect employee favorite snack/drink information; provide annual voucher for free scrubs on anniversary.
QICNE	Orientation	Have department heads speak for 10 minutes on orientation day; include wound nurse and therapy in orientation; new hire staff and CNAs to join committees; update and expand orientation.
QICNE	Staffi g	Department heads take on-call during week to cover call offs for nurses and CNAs (prevents mandatory stay over); implement stress management strategies for staff; place a member of management on the flo r for immediate intervention with problems and concerns. 30-, 60-, 90-day evaluations of new hires. Consider hiring more PRN and part-time CNAs to cut down overtime during high census and PTO time.

Data display and visualization can help facilities understand the success they have achieved and any missed opportunities. Below are examples of summarized data from the improving CNA staffing project provided by some of the participating Collaboratives in this PIP. Please note, that if a facility is a member of the Advancing Excellence in America's Nursing Homes, the program website includes an interactive tool to input data on staff stability and track the data without creating your own tracking documents. Visit www.nhquality-campaign.org for more information.

STAFF SATISFACTION SURVEY RESULTS

		Initial CNA Collaborative Total	CNAs Hired Before 4/1/2016	Percentage of Change from Initial Survey
Work Environment		**2.85**	**3.03**	**4.50%**
1	For the type of job, my workload is reasonable.	2.62	2.83	5.31%
2	I have enough equipment and supplies to do my work well.	2.91	3.05	3.60%
3	Compared to other facilities, I am paid well.	2.64	2.86	5.43%
4	My performance evaluations are done fairly.	3.09	3.18	2.28%
5	There is communication between shifts.	2.37	2.78	10.33%
6	Co-workers work well together.	2.74	2.87	3.32%
7	I like the type of work that I do.	3.44	3.71	6.85%
8	I feel respected by my co-workers.	2.98	2.97	-0.15%
Supervision		**2.99**	**3.12**	**3.25%**
9	I get recognition for good work.	2.95	3.01	1.46%
10	My supervisor cares for me as a person.	3.12	3.17	1.35%
11	I am treated by respect from management.	3.01	3.21	5.11%
12	Managers care about the staff.	2.87	3.09	5.52%
Training		**2.97**	**3.00**	**0.75%**
13	New staff receive good orientation.	2.99	2.86	-3.29%
14	Staff receive good ongoing training for their job type.	3.00	3.12	2.89%

Action Step 11. Identify the Root Cause of Problems (RCA)

Once a problem has been identified, a variety of tools can be used to identify the root cause(s) that should be addressed with an intervention(s). CMS provides a *Guide to Root Cause Analysis* (see *Appendix B* for full website) within the QAPI program.

Collaboratives will want to approach root cause analysis from both the Collaborative and individual facility level. Root cause analysis is based on data to ensure the intervention addresses the core issue and may vary among Collaborative members, depending on the issue. Several Collaboratives had success in implementing the same intervention across all members to address a common root cause. In Collaboratives where members chose their intervention individually, small groups were formed by grouping common root causes/interventions. This allowed members to discuss common barriers and ways to overcome the barriers with each other in either situation. For more discussion on *Action Step 11*, see the previous section *Utilizing QAPI as a Collaborative*.

IMPORTANT NOTE: The most frequently encountered barrier to a Collaborative's success was overcoming biases and preconceived ideas about the root cause of a problem. It is critical that a true focused and data-based root cause analysis be completed by each facility for each PIP. Although Collaborative members may discuss the "how-to" of root cause analysis and brainstorm possible root causes of a particular challenge, the actual root cause must be validated by PIP data.

BEWARE: LISTEN TO YOUR DATA!

We observed that Collaboratives often prematurely identified ASSUMED root causes for problems prior to a detailed analysis of the data. Once data analysis was conducted, other root causes frequently emerged and the assumptions were shown to be incorrect.

Action Step 12. Take Systemic Action

Systemic change lives beyond the timeline of the PIP. Once the planned timeline is complete, the facility should consider how successful interventions should be continued, reinforced, and expanded, if applicable. If the initial intervention(s) were implemented in a specific unit or floor, successful interventions should be expanded to additional areas of the facility or of the corporate enterprise. The facility should also consider which interventions were not successful. If initial interventions did not produce desired results, Collaboratives and facilities should reassess the root cause, strength of the intervention chosen and if the intervention was implemented as planned. Facilities should continue to monitor ongoing practice and continually identify new ways to improve outcomes and quality of care. This process of planning, intervening, measuring, and implementing fully is known as the **Plan | Do | Study | Act** model. Collaboratives may want to continue data reporting and monitoring after the time of focus on any given PIP to ensure the process change is stable and any decreases in quality are quickly identified and addressed.

Additional Resources

STAFFING TRACKING LOG

NURSING STAFFING			
	Total Hours for Last 14 day pay cycle	# Employed on 1st Day of Month	# Terminated by Last Day of Month
Registered Nurse			
Licensed Practical Nurse			
Certified Nursing Assistant			
TOTAL			
CENSUS			
Average Resident Census for Month			
TERMINATIONS			
Reason	**Number of Staff**		
Involuntary			
Voluntary			
No Call/No Show			
Voluntary Termination Reasons	**Number of Staff**		
Benefits			
Compensation			
Staff Relations			
Personal Reasons			
Other			
Length of Employment for Terminated Employees	**Number of Staff**		
0 - 90 days			
91 days - 6 months			
6 months - 1 year			
>1 year			

CNAs Hired April 1-May 30			
These staff members should also be included above in the staffing and terminations counts where applicable.This will be a running list over the next 2 months.			
Employee ID	**Meetings Attended**		**Termination**
	1		YES or NO
	2		**If YES:*
	3		Date: ____
	4		Voluntary *or* Involuntary
Employee ID	**Meetings Attended**		**Termination**
	1		YES or NO
	2		**If YES:*
	3		Date: ____
	4		Voluntary *or* Involuntary
Employee ID	**Meetings Attended**		**Termination**
	1		YES or NO
	2		**If YES:*
	3		Date: ____
	4		Voluntary *or* Involuntary
Employee ID	**Meetings Attended**		**Termination**
	1		YES or NO
	2		**If YES:*
	3		Date: ____
	4		Voluntary *or* Involuntary
Employee ID	**Meetings Attended**		**Termination**
	1		YES or NO
	2		**If YES:*
	3		Date: ____
	4		Voluntary *or* Involuntary
Employee ID	**Meetings Attended**		**Termination**
	1		YES or NO
	2		**If YES:*
	3		Date: ____
	4		Voluntary *or* Involuntary
Employee ID	**Meetings Attended**		**Termination**
	1		YES or NO
	2		**If YES:*
	3		Date: ____
	4		Voluntary *or* Involuntary
Employee ID	**Meetings Attended**		**Termination**
	1		YES or NO
	2		**If YES:*
	3		Date: ____
	4		Voluntary *or* Involuntary
Employee ID	**Meetings Attended**		**Termination**
	1		YES or NO
	2		**If YES:*
	3		Date: ____
	4		Voluntary *or* Involuntary
Employee ID	**Meetings Attended**		**Termination**
	1		YES or NO
	2		**If YES:*
	3		Date: ____
	4		Voluntary *or* Involuntary

ADMINISTRATIVE SURVEY FOR STAFFING STABILITY

Administrative Survey for Staffing Stability

Facility Name:			**Date:**			
Name of administrator completing the survey:						
	Place an X in the box that best describes your response to the statement. Then, place a check in the gray box if you feel this is something your facility would want to focus on improving.	**Always**	**Usually**	**Sometimes**	**Never**	
	Staff Stability					
1	We carry out our attendance policy in a way that is fair and flexible to our staff needs.					
2	Staff reports to work as scheduled and we have very few absences.					
3	Our facility takes time to hire the right person for the position.					
4	New employees receive a good welcome, support, and as much orientation as needed.					
	Leadership					
5	Everyone on the management team answers call lights.					
6	Management team provides assistance to staff when needed for any identified needs.					
7	Administrator conducts daily rounds to support and encourage staff.					
8	DON meets with nurses to discuss workforce and workflow issues.					
9	Charge nurses provide positive leadership to the care team.					
	Staff Relations					
10	Nursing staff (nurses and aides) communicate well with each other.					
11	Nursing staff communicate well with other disciplines.					
12	Staff are consistently assigned to the same residents/units.					
13	QAPI activities are unit based with high involvement from the staff closest to the residents.					
14	Staff treat each other with respect.					
15	Staff pitch in when other team members need help completing assignments even though it may not be their responsibility.					
	Facility Specific Programs					
	Question			**Response**		
16	Does your facility offer any sign-on bonuses? If yes, for what positions?			□Yes Positions:	□No	
17	For nursing assistants, what is the typical length of orientation?					
18	For RN's/LPN's what is the typical length of orientation?					
19	Does your facility have a mentor program? If yes, what makes an individual qualified for being a mentor?			□Yes Mentor qualifications:	□No	
20	Does your facility offer evaluation at periodic interval throughout staff orientation (30,60,90 day, 6 month)?			□Yes	□No	
21	Do you conduct peer interviews (group of staff that would be working directly with the individual) when selecting a new hire?			□Yes	□No	
22	Does your facility offer job shadowing prior to hire?			□Yes	□No	

Adapted from Marion County Nursing Home Leadership Collaborative Program Evaluation Results

STAFF SATISFACTION SURVEY

Staff Satisfaction Survey

As part of our work with the Community Care Connections collaborative to improve the quality of care in our facility, we are working on a project to increase staffing stability. We need your help to identify ways to improve job satisfaction within our facility and make this a great place to work. Please take a moment to complete this confidential survey to assist us in this effort. Your responses will remain anonymous-please do not write your name anywhere on this survey.

Place an X in the box that best describes your response to the statement.
For the last statement, provide an answer in the box to the right.

		Stongly Agree	Agree	Disagree	Strongly Disagree
Work Environment					
1	For the type of job, my workload is reasonable.				
2	I have enough equipment and supplies to do my work well.				
3	Compared to other facilities, I am paid well.				
4	My performance evaluations are done fairly.				
5	There is communication between shifts.				
6	Co-workers work well together.				
7	I like the type of work that I do.				
8	I feel respected by my co-workers.				
Supervision					
9	I get recognition for good work.				
10	My supervisor cares for me as a person.				
11	I am treated by respect from management.				
12	Managers care about the staff.				
Training					
13	New staff receive good orientation.				
14	Staff receive good ongoing training for their job type.				
15	I received training to deal with challenging residents.				
16	I received training to deal with challenging families.				
Caregiving					
17	The staff cares about the residents.				
18	This facility gives good care.				
19	I feel like I make a difference for the residents I care for.				
General					
20	Overall, I am proud to work in this facility.				
21	I would recommend this facility as a good place to receive care.				
22	I would recommend this facility as a good place to work.				
23	I feel connected to my co-workers.				
24	I feel connected to the residents in this facility.				
25	I would be happier in my facility if: _____ *(specify in box to the right)*				

My job at the facility is: (check one)
- □ Support Staff
- □ Certified Nursing Assistant
- □ Licensed Practical Nurse
- □ Registered Nurse
- □ Management/Administrator

Community Care Connections

Thank you for taking the time to complete this survey. We value your opinion and contribution.

Adapted from Marion County Nursing Home Leadership Collaborative Program Evaluation Results and from "Customer Satisfaction in Long Term Care: A Assessing Quality" V Tellis-Nayak, Ph.D, American Health Care Association Leadership Toolkit 2.

CNA SURVEY

Your workplace is participating in a collaborative to improve quality of care in your nursing facility. Over the next six months, we will be working on staff retention and turnover, and we need your help! This survey asks different questions about your job. When you answer each question, please mark how satisfied you are with each aspect.

You do not need to put your name on this survey. All survey responses will be kept confidential and will only be viewed by Aging & In-Home Services. Your responses will be used to help shape our improvement project to make your workplace better, so please be honest!

Thank you!

EXIT INTERVIEW STAFF TRACKING

Employee Name	Start Date	End Date	Job Title	Reason for Leaving	Notes
Example A	2/2/14	2/2/15	C.N.A	Relocated	
Example B	3/3/15	4/5/15	LPN	Career Advancement	
Example C	6/6/15	4/1/16	RN	Drug/Alcohol	
Example D	4/4/15	5/1/15	QMA	Accepted job at competitor NF	

Determining Collaborative Cost of CNA Turnover

FACILITY _____

Cost of Advertising: $ _____

Consider the cost of placing an ad in the newspaper, on the radio, or other means used to advertise the CNA openings for your facility.

Time spent interviewing and checking references: _____

Think of the average number of time spent interviewing all applicants for a position and the average time spent checking references to fill one position.

Average hourly rate for employee who conducts interviews and checks references: $ _____

Who conducts the interviews and checks references? What is their hourly rate? If it is more than one person, use the average hourly rate of those individuals.

Cost of employee physical: $ _____

Cost of TB test: $ _____

Cost of Hep B vaccine: $ _____

Cost of drug screen: $ _____

Cost of hiring/referral bonus: $ _____

If your facility does not offer bonuses for new CNAs or referral bonuses, enter N/A.

Cost of background check: $ _____

Average hourly rate for CNA: $ _____

Average number of days to fill vacant position: _____

Consider your last few CNA vacancies. How long did it take to fill those positions? Use the average.

Number of hours of classroom orientation: _____

Average number of CNAs in each orientation class: _____

Average number of hours spent in floor orientation: _____

Keep in mind, the collaborative average for CNA orientation was 7 days, with most facilities reporting 3-5 days.

CNA TURNOVER COST CALCULATOR (EXAMPLE 2)

Calculation of Annual CNA Turnover Replacement Cost

Facility Name: _____ ***Completed by:*** _____

To calculate the Annual CNA Turnover Replacement Cost, first determine the direct costs. Items with asterisks are costs that will be added on the last page of this tool; items with no asterisks are data or calculations that feed into the cost:

STEP 1: Determine Direct Cost Replacement Costs

CNA new-hire hourly rate:

***Advertising cost:**_____

Calculation: Enter the cost of placing an ad in the local newspaper for three days, including Sunday

***Cost to interview and screen applicants:**_____

***Cost to call and check references:**_____

Calculation: Multiply the hourly rate for the interviewer and the person checking references by the time taken for these activities

***Cost of employee physical:**_____

***Cost of TB test:**_____

***Cost of Hepatitis B vaccination:**_____

***Cost of drug screen:**_____

***Cost of hiring bonus or employee referral bonus:**_____

***Cost of criminal background check:**_____

7

Reducing Falls Toolkit

7. Reducing Falls Toolkit

Congratulations on forming your Collaborative for Quality Improvement in Long Term Care! We hope the toolkit was helpful in establishing your Collaborative and in learning about and working through the CMS Quality Assurance and Performance Improvement model (QAPI). As part of *Action Step 8. Identify Gaps & Opportunities*, your Collaborative will have created a list of opportunities for performance improvement and will have prioritized these opportunities as the beginning of *Action Step 9. Prioritize and Charter Projects (PIPs)*. This section will walk through Action Steps 9–12 for a project focused on reducing the rates of **resident falls** in nursing facilities. Recommendations are based on the experience of the 2015–2016 Regional Healthcare Quality Improvement Collaboratives, specifically the Southern Indiana Regional Collaborative (SIRC).

Action Step 9. Prioritize and Charter Projects (PIPs)

Once you have prioritized reducing the rates of resident falls as an opportunity to be addressed by your Collaborative, you will need to create a Collaborative Project Charter. The project charter will serve as the guiding document for the Collaborative project. Individual facilities may adjust the project charter slightly – updating the scope, project team, and materials – to reflect their individual facility and will use this as the contract between leadership and the project team. The project charter is created at the beginning of the project to clarify what is expected of the team. For a full discussion of developing a project charter, see the previous section *Utilizing QAPI as a Collaborative, Action Step 9. Prioritize and Charter Projects (PIPs)*. The discussion below will focus on creating a charter for a project to address reducing rates of resident falls.

PROBLEM STATEMENT

The problem statement is the reason for action; why this project was chosen and why it should be addressed now.

Sample problem statement for reducing rates of resident falls:

- **The Collaborative rates of resident falls are higher than state benchmarks. Falls can lead to many negative outcomes, which include hospitalization and injury, leading to decreased independence and quality of life. Not only are falls associated with high morbidity and mortality, they are also very costly for facilities and health care systems.**

BACKGROUND

This is the background leading up to the need for this specific project.

Sample background for a project on resident falls:

There are many factors that can lead to increased fall rates, such as shortage of staff, acute illness or underlying chronic disease, lack of proper training, and poorly fitting or slippery shoes. Literature reports that although most falls occur during normal, non-hazardous activity in community living, bulky objects, slippery floors, poor lighting, and patterns on floors or walls are the most common environmental hazards associated with falls[8]. For older persons, who are non-ambulatory falls are more likely to occur during transfers or due to ill-fitting equipment[9].

[8] *Owen DH. Maintaining posture and avoiding tripping. Optical information for detecting and controlling orientation and locomotion. Clin Geriatr Med. 1985;1:581–99.*

Of the many harmful impacts on the individual, falls are also an exorbitant burden on facilities and health care systems, costing more than $20.2 billion dollars a year in health care costs (hospitalizations, surgery and recovery). It is reported that this number will climb to $32.4 billion by 2020[10]. These factors also contribute towards decreased CMS quality measures, which will have an incessant trickle effect, further influencing facility five star ratings, marketing strategies, and reimbursement rates.

AIM STATEMENT

The aim statement answers the question "What is the Collaborative trying to accomplish?" This should be stated as a SMART goal (specific, measureable, achievable, reasonable, and timely) and often includes the baseline metric. "We want to improve (metric) from (initial state) to (target state) by (target date)."

Sample aim statements for reducing rates of resident falls:

- **Reduce the rate of falls from 8% to below the state average (3.5%), from January 1, 2016 to May 1, 2016.**
- **Collaboratively, reduce rate of falls by from 8% to 5% from January 1, 2016 to May 1, 2016.**

PROJECT SCOPE

The project scope provides the specifics of the project as related to goals; what is included/excluded. This may be different for each facility as they may target different units/floors/populations within their buildings.

Sample project scope statement for reducing rates of resident falls:

- **Facilities should analyze their data at the level of floor/unit/population to see where the highest rates of resident falls are within the facility. The project should focus on this area first for the greatest impact.**

PROJECT METRICS

Project metrics tell how you will measure project efforts to show what was achieved. This includes baseline data (initial state). Other metrics to consider are secondary metrics (welcomed side effects), consequential metrics (unwelcomed side effects) and financial (any costs incurred or saved due to the project) metrics. The secondary and consequential metrics may be different across members as they may relate to the specific intervention. Previously, Collaboratives tracked and reported metrics as an average of all participating members. This allowed for group cohesion, a shared goal, and cleaner reporting of project outcomes. It also may blur outcomes as stronger performing members may "pick up the slack" for poorer performing members. Each Collaborative should decide if they will look at these metrics averaged across all members or by individual member facility.

Sample Metrics:

- **Primary Metric** – This is the main indicator to be measured. It defines the project goal and measures baseline and improvement at the end of the project. Sample metrics for resident falls:

  Metric: Resident fall rate

  Calculation: # of falls/# of residents

[9] *Thapa PB, Brockman KG, Gideon P, et al. Injurious falls in nonambulatory nursing home residents: a comparative study of circumstances, incidence, and risk factors. J Am Geriatr Soc. 1996;44:273–8.*

[10] *Chang J, Morton S, Rubenstein L, et al. Interventions for the prevention of falls in older adults: systematic review and meta-analysis of randomized clinical trials. BMJ. 2004;328:680-7.*

Baseline: Resident fall rate prior to the start of the project
Data Source: Facility fall logs. Facility fall logs are an accessible and existing data source across facilities.

- **Secondary Metric** – This metric captures, validates, and tracks welcome side effects of the project. This may differ among participating facilities due to different interventions.
  Metric: Hospitalization rate
  Calculation: Total # hospitalizations/ Total # of residents
  Baseline: Hospitalization rate prior to the start of the project
  Data Source: Hospitalization logs. Hospitalization control logs are an accessible and existing data source across facilities

- **Consequential Metric** – This metric captures, validates, and tracks unwelcome side effects of the project. This may differ among participating facilities due to different interventions
  Metric: Level of resident activity
  Calculation: Ratings of activity level by staff
  Baseline: Level of activity prior to the start of the project
  Data Source: Activity logs; resident records
  Additional considerations: One of the most frequent unwelcomed side effects of efforts to decrease resident falls is a corresponding decrease in resident activity. Data sources for this metric may need to be assessed and enhanced as part of collaborative activity.

  Metric: Family satisfaction scores
  Calculation: Based on scoring of family satisfaction surveys
  Baseline: Family satisfaction scores prior to the start of the project
  Data Source: Family satisfaction surveys

- **Financial Metric** – This metric links project progress to financial outcomes.
  Metric: Savings due to prevented resident falls
  Calculation: (Expected # of resident falls for project period – actual # of resident falls in project period) X $35,000 cost per resident fall[11]
  Baseline: Cost due to falls prior to the start of the project
  Data Source: Facility fall log and current estimation of cost per fall

PROJECT TIMELINE

The project timeline will detail start and end points of the project and milestones along the way.

Collaboratives found that a falls focused PIP required at least three months to plan and initiate and at least three months after initial implementation to be able to observe a shift in metrics.

PROJECT TEAM AND ROLES

The project team outlines who will be involved in the project and what will be their role on the team. This clarifies responsibility and accountability, and ensures all necessary people are included. For a PIP on

[11] Stevens JA, Corso PS, Finkelstein EA, Miller TR. The costs of fatal and nonfatal falls among older adults. Injury Prevention 2006a;12:290–5: $35,000 per fall.

reducing resident fall rates, it is recommended that the project team includes: administrator, director of nursing, front line staff, physical therapy, and occupational therapy, as well as liaisons from all facility departments (particularly housekeeping and maintenance) because all staff should be aware of the dangerous implications of falls, proper protocol to prevent falls, and first responding to an incident.

MATERIAL RESOURCES REQUIRED

Any materials such as equipment, software, or supplies that will be needed for the project should be included in this section. This will likely be intervention dependent. This may include:

- **Data Tracking Log (see end of section)**

BARRIERS

This includes barriers that may impede progress on the project and how to overcome them. Discussing barriers and ways to address them as a group allows members to support and collaborate with each other, increasing the likelihood of avoiding challenges and achieving success for the project.

Collaboratives encountered the following barriers in their resident falls PIPs:

Barrier	Ways to Address the Barrier
Obtaining accurate data from all members	· Provide a consistent tracking tool for all members from the start. · Remind members frequently about data submission deadlines. · Publicly thank members who have submitted data at each Collaborative meeting. · Set expectations and require that facilities turn in all data to be included as a project member.
Facilities feeling too overwhelmed/ burdened with multiple projects/ requirements on top of day to day operations	· Encourage participants to focus on one or two areas of improvement for each collaborative or required certific tion from ISDH instead of selection numerous different projects. · Do small tests of change. Do not try to implement multiple interventions at one time.
Measurement inconsistencies with bed placement	· Put orange duct tape at the proper height near the bed so that any staff member can come by and adjust the bed as necessary, taking some pressure off CNAs.
Staff turnover	· Use strong interventions that are process based and not reliant on memorization.
Lack of engagement/feeling like it's another task	· Managers should make accommodations for staff working night and evening shifts to attend meetings or will shift their schedule to meet when the employee is working.

Action Step 10. Plan, Conduct, and Document PIPs

A **project intervention** is a strategy to improve the problem or challenge that is the subject of the PIP. Each facility should review gap analysis results to determine the best type of intervention for the stated problem. Facilities across the Collaborative can test different interventions, but should track results related to each intervention. Collaboratives should seek out evidence-based practices whenever possible. When identifying potential interventions, remember to identify assets and resources and evaluate the strength and sustainability of the intervention. For more discussion on *Action Step 10*, see the previous section Utilizing *QAPI as a Collaborative*.

RESOURCE: Data intervention activity worksheet

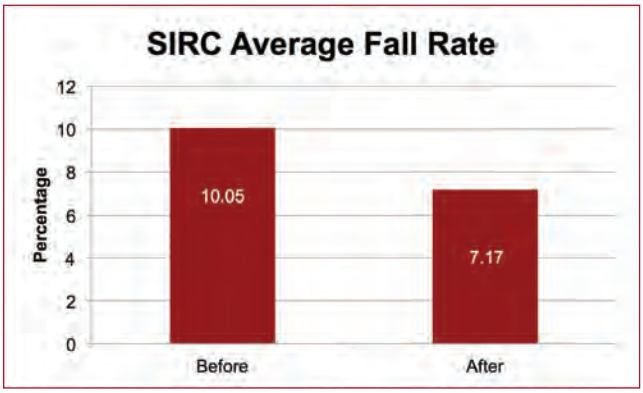
As introduced previously, the Collaborative can use the *Data-Intervention Worksheet (Appendix A12)* to facilitate the selection of an intervention(s) for the chosen PIP topic. *The Facilitation Guide (Appendix A13)* provides detailed instructions on the use of the worksheet to identify interventions.

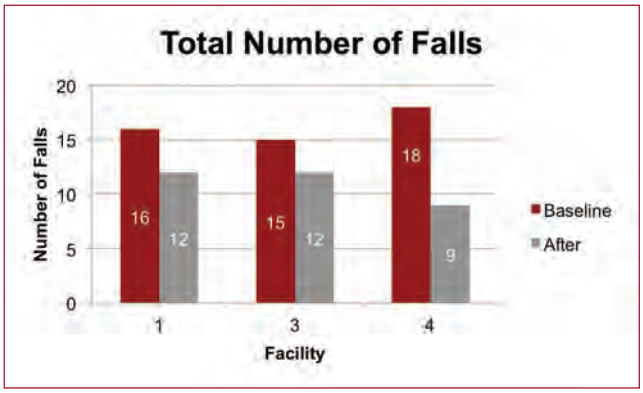
Interventions utilized in previous Collaborative PIPs are detailed in the following chart.

Intervention	Intervention Metrics and/or Description
Bedtime Preference	Knowing the resident's preferred bedtime will reduce likelihood of falls related to self-transfers to bed.
Bed Height & Obstacles	Put all beds at appropriate height and use orange tape to mark height, allowing anyone to adjust as needed. Remove flo r mats.
Increase aerobic exercise in dementia care unit	Residents will participate in two aerobic exercise sessions daily. One in the morning and a second in the afternoon to facilitate better rest.
Increase day programming in the dementia unit	Increasing day programming, between 10am – 7pm, stimulates the resident's mind to facilitate better rest. The last program for the day will be one that promotes a calming affect before bedtime.
Institute a facility-wide "alarm vacation"	Personal pull-pin and bed/chair pressure pad alarms will be discontinued between the hours of 11pm – 5am nightly. Measure current number/ type of alarms in use at start of project with number of alarms being discontinued as part of the "alarm vacation."
Timely completion of the Falls Screen Investigation Report	Encourage staff to complete report at the time of fall. Analyzing the contributing factors as identified by an in erdisciplinary team present at the time of the fall may reveal factors contributing to the fall that may go unidentified wit out this report.

Data display and visualization can help facilities understand the successes they have achieved and any missed opportunities. Below are examples of summarized data provided by the participating Collaboratives in this PIP.

SIRC Close Out 1 GRAPHS





Action Step 11. Identify the Root Cause of Problems (RCA)

Once a problem has been identified, a variety of tools can be used to identify the root cause(s) that should be addressed with an intervention(s). CMS provides a *Guide to Root Cause Analysis* (see *Appendix B* for full website) within the QAPI program.

Collaboratives will want to approach root cause analysis from both the Collaborative and individual facility level. Root cause analysis is based on data to ensure the intervention addresses the core issue and may vary among Collaborative members, depending on the issue. Several Collaboratives had success in implementing the same intervention across all members to address a common root cause. In Collaboratives where members chose their intervention individually, small groups were formed by grouping common root causes/interventions. This allowed members to discuss common barriers and ways to overcome the barriers with each other in either situation. For more discussion on *Action Step 11*, see the previous section *Utilizing QAPI as a Collaborative*.

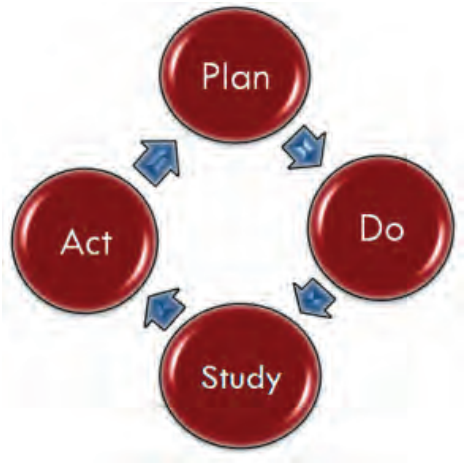
IMPORTANT NOTE: The most frequently encountered barrier to a Collaborative's success was overcoming biases and preconceived ideas about the root cause of a problem. It is critical that a true focused and data-based root cause analysis be completed by each facility for each PIP. Although Collaborative members may discuss the "how-to" of root cause analysis and brainstorm possible root causes of a particular challenge, the actual root cause must be validated by PIP data.

BEWARE: LISTEN TO YOUR DATA!

We observed that Collaboratives often prematurely identified ASSUMED root causes for problems prior to a detailed analysis of the data. Once data analysis was conducted, other root causes frequently emerged and the assumptions were shown to be incorrect.

Action Step 12. Take Systemic Action

Systemic change lives beyond the timeline of the PIP. Once the planned timeline is complete, the facility should consider how successful interventions should be continued, reinforced, and expanded, if applicable. If the initial intervention(s) were implemented in a specific unit or floor, successful interventions should be expanded to additional areas of the facility or of the corporate enterprise. The facility should also consider which interventions were not successful. If initial interventions did not produce desired results, Collaboratives and facilities should reassess the root cause, strength of the intervention chosen and if the intervention was implemented as planned. Facilities should continue to monitor ongoing practice and continually identify new ways to improve outcomes and quality of care. This process of planning, intervening, measuring, and implementing fully is known as the **Plan | Do | Study | Act** model. Collaboratives may want to continue data reporting and monitoring after the time of focus on any given PIP to ensure the process change is stable and any decreases in quality are quickly identified and addressed.



Additional Resources

SIRC PROJECT 1 DATA NEEDED

Facility Falls Tracking Log

Directions:

- Average total test group/unit/floor census for the months of June & July
- Total number of falls for the test group/unit/floor from June & July per fall log
- Number of residents that contributed to falls for the test group/unit/floor from June & July per fall log

Example: Facility X- Average unit census =25 people. 8 total falls in June & 5 residents contributed to this total.

	June Total	July Total
Census:		
Total # of Falls:		
# of residents - Falls		
Facility Name		

8

Reducing Hospitalizations Toolkit

8. Reducing Hospitalizations Toolkit

Congratulations on forming your Collaborative for Quality Improvement in Long Term Care! We hope the toolkit was helpful in establishing your Collaborative and in learning about and working through the CMS Quality Assurance and Performance Improvement model (QAPI). As part of *Action Step 8. Identify Gaps & Opportunities*, your Collaborative will have created a list of opportunities for performance improvement and will have prioritized these opportunities as the beginning of *Action Step 9. Prioritize and Charter Projects (PIPs)*. This section will walk through Action Steps 9–12 for a project focused on reducing the rates of **healthcare-associated infection (HAI)-related hospitalizations** in nursing facilities. Recommendations are based on the experience of the 2015–2016 Regional Healthcare Quality Improvement Collaboratives, specifically Community Care Connections (CCC).

Action Step 9. Prioritize and Charter Projects (PIPs)

Once you have prioritized reducing HAIs as an opportunity to be addressed by your Collaborative, you will need to create a Collaborative Project Charter. The project charter will serve as the guiding document for the Collaborative project. Individual facilities may adjust the Collaborative charter slightly – updating the scope, project team, and materials – to reflect their individual facility and will use this as the contract between leadership and the project team. The project charter is created at the beginning of the project to clarify what is expected of the team. For a full discussion of developing a project charter, see the previous section *Utilizing QAPI as a Collaborative, Action Step 9. Prioritize and Charter Projects (PIPs)*. The discussion below will focus on creating a charter for a project to address reducing rates of HAI-related hospitalizations.

PROBLEM STATEMENT

The problem statement is the reason for action; why this project was chosen and why it should be addressed now.

Sample problem statements for reducing rates of HAI-related hospitalization:

- **The Collaborative's current rate of HAI-related hospitalizations is 0.6% per 1,000 resident days. According to MDS data, HAI-related hospitalizations account for 20.3% of the annual hospitalizations for skilled nursing residents, causing unnecessary risk to the resident and undue burden on government spending.**

BACKGROUND

This is the background leading up to the need for this specific project.

Sample background for a project to reduce rates of HAI-related hospitalizations:
According to the 2013 report *Medicare Nursing Home Resident Hospitalization Rates Merit Additional Monitoring* compiled by the Office of the Inspector General, 25% of nursing home residents experience hospitalization one day each year[12]. These hospitalizations cost 33% more than Medicare recipients who are not residents in a skilled nursing facility. For residents who are hospitalized, over 30% of the hospitalizations are related to healthcare associated infections such as septicemia, pneumonia, pneumonitis, and urinary tract infections. Indiana ranked 33rd in the geographic distribution of average annual hospitalization rates of nursing home residents with an annual percentage of 25% of residents hospitalized.

[12] *https://oig.hhs.gov/oei/reports/oei-06-11-00040.pdf*

Additionally, section 3021 of the Affordable Care Act called for an initiative to reduce avoidable hospitalizations among nursing facility residents. This effort will serve to potentially impact the rating and/or reimbursement of facilities that demonstrate higher hospitalization rates for their residents. Currently, facilities already have measures tied to certain HAI components including pneumonia vaccination, flu vaccination, CAUTI, and C. Diff infection.

For CCC, the facilities had 13.65% of their residents hospitalized over the course of March and April. Of those residents who were hospitalized, 27% of them were hospitalized for an identified HAI (3.7%). Of those residents who had a readmission to the hospital within 30 days, 74% of them had an initial diagnosis of an HAI on the first admission. Through measurement and data collection alone, the facilities saw a decrease in hospitalizations related to HAI and were confident that further improvements can be made in this project through implementation of targeted interventions.

AIM STATEMENT

The aim statement answers the question "What is the Collaborative trying to accomplish?" This should be stated as a SMART goal (specific, measureable, achievable, reasonable, and timely) and often includes the baseline metric. "We want to improve (metric) from (initial state) to (target state) by (target date)."

Sample aim statements for reducing rates of HAI-related hospitalizations:

- **Improve HAI-related hospitalizations from 0.6 HAI hospitalizations per 1,000 resident days to 0.46 HAI hospitalizations per 1,000 resident days (a decrease of 20%) from June 30, 2016 to October 31, 2016.**
- **Collectively decrease HAI-related hospitalizations, from 0.8% HAI hospitalizations per 1,000 resident days, to 0.5% HAI hospitalizations per 1,000 resident days from January 1, 2016 to May 1, 2016.**

PROJECT SCOPE

The project scope outlines specifics of the project as related to goals; what is included/excluded. This may be different for each facility as they may target different units/floors/populations within their buildings.

Sample project scope statement for reducing rates of HAI-related hospitalizations:

- **Facilities should analyze their data at the level of floor/unit/population to see where the highest rates of HAI-related hospitalizations are within the facility. The project should focus on this area first for the greatest impact.**

PROJECT METRICS

Project metrics tell how you will measure project efforts to show what was achieved. This includes baseline data (initial state). Other metrics to consider are secondary metrics (welcomed side effects), consequential metrics (unwelcomed side effects) and financial (any costs incurred or saved due to the project) metrics. The secondary and consequential metrics may be different across members as they may relate to the specific intervention. Previously, Collaboratives tracked and reported metrics as an average of all participating members. This allowed for group cohesion, a shared goal, and cleaner reporting of project outcomes. It also may blur outcomes as stronger performing members may "pick up the slack" for poorer performing members. Each Collaborative should decide if they will look at these metrics averaged across all members or by individual member facility.

Sample Metrics:

- **Primary Metric** – This is the main indicator to be measured. It defines the project goal and measures baseline and improvement at end of project. Sample metrics for HAI-related hospitalizations:

  Metric: # of HAI-related hospitalizations /1000 resident days

  Calculation: # of collaborative HAI hospitalizations/Average Daily Census (ADC) of collaborative population X 1,000

  Baseline: Rate of residents with HAI-related hospitalizations prior to the start of the project

  Data Source: Hospitalization Log. Hospitalization logs are an accessible and existing data source across facilities.

- **Secondary Metric** – This metric captures, validates, and tracks welcome side effects of the project. This may differ among participating facilities due to different interventions.

  Metric: Percentage of HAI Hospitalizations

  Calculation: Total # of HAI-related hospitalizations/ Total # of hospitalizations x 100

  Baseline: Percentage of HAI Hospitalizations prior to the start of the project

  Data Source: Hospitalization Log. Hospitalization logs are an accessible and existing data source across facilities.

- **Consequential Metric** – This metric captures, validates, and tracks unwelcome side effects of the project. This may differ among participating facilities due to different interventions.

  Metric: Hospitalizations per 1,000 resident days

  Calculation: # of collaborative hospitalizations/ADC of collaborative population X 1,000

  Baseline: Hospitalizations per 1,000 resident days prior to the start of the project

  Data Source: Hospitalization Log. Hospitalization logs are an accessible and existing data source across facilities.

  Additional considerations: Collaborative members had concerns that use of the Stop and Watch form would increase overall hospitalizations due to closer scrutiny and observation.

- **Financial Metric** – This metric links project progress to financial outcomes.

  Metric: Cost avoidance of Medicare spend per HAI hospitalization

  Calculation: (Anticipated # of HAI hospitalizations – Actual # of HAI hospitalizations) X $11,255[13]= Anticipated Medicare savings as a result of the QAPI project

  Baseline: Cost avoidance of Medicare spend per HAI hospitalization prior to the start of the project

  Data Source: Hospitalization Log. Hospitalization logs are an accessible and existing data source across facilities. It is also necessary to look at the average (at the time) reimbursement of hospitalizations paid by Medicare for nursing home residents.

  Metric: Cost to residents for rehab bed hold

  Calculation: Current state – Future state = Minimum resident savings

  Baseline: Cost to residents for rehab bed hold prior to the start of the project

  Data Source: Hospitalization Log. Hospitalization logs are an accessible and existing data source

[13] *https://oig.hhs.gov/oei/reports/oei-06-11-00040.pdf*

across facilities. It is also necessary to look at the average (at the time) reimbursement of hospitalizations paid by Medicare for nursing home residents.

Metric: Cost to facility for long term care resident bed hold
Calculation: Current state – Future state=Minimum facility savings
Baseline: Cost to facility for long term care resident bed hold prior to the start of the project
Data Source: Hospitalization Log. Hospitalization logs are an accessible and existing data source across facilities. It is also necessary to look at the current average reimbursement of hospitalizations paid by Medicare for nursing home residents.

PROJECT TIMELINE

The project timeline will detail start and end points of the project and milestones along the way.

Collaboratives found that an HAI-related hospitalization PIP required at least three months to plan and initiate and while initial improvement in metrics was seen within quickly after initiation, at least three months after initial implementation were preferential to observe a significant shift in metrics.

PROJECT TEAM AND ROLES

The project team outlines who will be involved in the project and what will be their role on the team. This clarifies responsibility and accountability, and ensures all necessary people are included. For a PIP on reducing rates of HAI-related hospitalizations, it is recommended that the project team include the facilities' infection preventionist/infection control officer for overall guidance and best practices and the front line staff (nurses and certified nurses' assistants) who are responsible for the daily care of residents and will carry out the process change.

Additional Considerations: This Collaborative discovered that local emergency departments were not familiar with the services each facility offered and thus frequently admitted residents to the hospital rather than send them back to the facility. To address this, the Collaborative connected with local emergency departments to communicate the project efforts and educate them on the abilities of member facilities. To support this, the Collaborative formed an Emergency Department Educational Committee.

MATERIAL RESOURCES REQUIRED

Any materials such as equipment, software, or supplies that will be needed for the project should be included in this section. This will likely be intervention dependent and may include:

- **Stop and Watch Letter for Staff (see end of section)**
- **Stop and Watch Form (see end of section)**
- **Stop and Watch Posters for Facilities to Display (see end of section)**
- **Stop and Watch Laminated Pocket Cards for Facility Staff (see end of section)**
- **Stop and Watch Letter for Resident and Family (see end of section)**
- **Stop and Watch Log (see end of section)**
- **Hospitalization Tracking Log (see end of section)**

- **Emergency Department Education Flyer**
- **Emergency Department Binder for Area Hospitals**
- **Facility Capability List for Collaborative Participants**

BARRIERS

This includes barriers that may impede progress on the project and how to overcome them. Discussing barriers and ways to address them as a group allows members to support and collaborate with each other, increasing the likelihood of avoiding challenges and achieving success for the project.

This Collaborative encountered the following barriers in their HAI-related hospitalization PIP:

Barrier	Ways to Address the Barrier
Obtaining accurate data from all members	· Provide a consistent tracking tool for all members from the start. · Remind members frequently about data submission deadlines. · Publicly thank members who have submitted data at each Collaborative meeting. · Set expectations and require that facilities turn in all data to be included as a project member.
Lack of staff and physician collaboration and cooperation	· Include physicians in the facility roll out of the project interventions. · Provide physicians with an education sheet on what the interventions are and what the goal of the project is. · Train staff on purpose and use of Stop and Watch forms. · Provide a staff education letter. · Ensure there is a champion on all shifts/units to encourage support. · Include education in the orientation process so that turnover does not impact the efforts of the project.
Facility surveys/ staff perception of lack of time or duplicate efforts	· Educate all staff that these efforts will improve the overall quality of care for residents and improve compliance. · These efforts assist the facility in meeting the QAPI requirements that surveyors will ask about. · Remind staff of the time it takes to complete a hospital transfer and all of the steps that are included with that in comparison to filli g out a Stop and Watch sheet or performing a focused assessment. · If staff have the perception of "We already do this," remind them of the collaborative effort to increase focus on this initiative and the importance to the quality of resident care. Let this be a re-charge for your current processes.
Families want residents hospitalized	· Include a letter to families and residents that explains with the purpose of the Stop and Watch tool. · Encourage families to use Stop and Watch as well for earlier identific tion of problems. · Display Stop and Watch posters in the facilities to keep change-in-condition reporting at top of mind. · Provide education to ED physicians so that they can also educate families about the facility capabilities.

Action Step 10. Plan, Conduct, and Document PIPs

A project intervention is a strategy to improve the problem or challenge that is the subject of the PIP. Each facility should review gap analysis results to determine the best type of intervention for the stated problem. Facilities across the Collaborative can test different interventions, but should track results related to each intervention. Collaboratives should seek out evidence-based practices whenever possible. When identifying potential interventions, remember to identify assets and resources and evaluate the strength and sustainability of the intervention. For more discussion on *Action Step 10*, see the previous section *Utilizing QAPI as a Collaborative*.

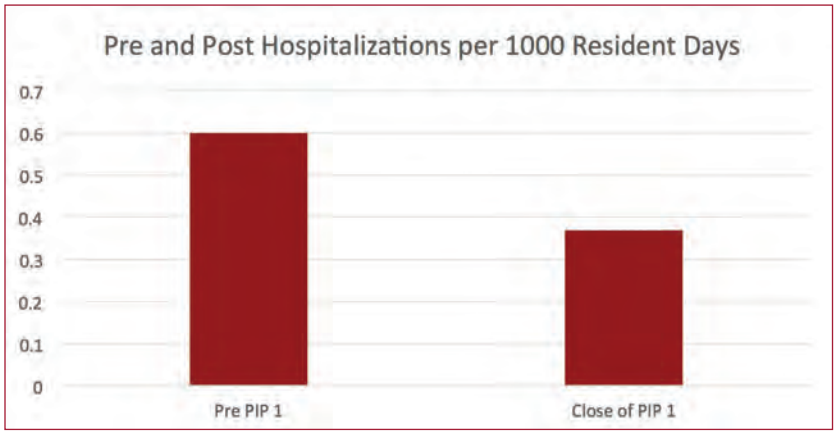
RESOURCE: Data intervention activity worksheet

As introduced previously, the collaborative can use the *Data-Intervention Worksheet (Appendix A12)* to facilitate the selection of an intervention(s) for the chosen PIP topic. *The Facilitation Guide (Appendix A13)* provides detailed instructions on use of the worksheet to identify interventions.

Interventions utilized in previous Collaborative PIPs are detailed in the following chart.

Intervention	Intervention Process Metrics
Completion of Hospitalization Log	· Hospitalization log must be completed for all hospital transfers from facility among identified p ulation. · Number of overall hospitalizations; number of HAI-related hospitalizations.
Stop & Watch Program Education	· Provide additional program education for facilities and staff. · Number of education components completed; number of attendees.
Completion of Stop & Watch Sheets	· Staff will complete a Stop and Watch form for any noted change in condition and present to the person responsible for the resident. · Number of Stop and Watch forms completed; number of residents hospitalized for HAI.
Resident Assessments	· Nurse will complete a resident assessment for any Stop and Watch that is reported. · Number of nursing assessments completed as a result of Stop and Watch; number of residents hospitalized for HAI.
Emergency Department Education	· Education will focus on the capabilities of the facilities and the Collaborative's efforts on reducing HAI hospitalizations. · Number of HAI-related ED visits that do not result in hospitalization.
Facility Support	· Laminate the Stop and Watch card and incorporate them into staff badge/lanyards.
Incentives	· Incentivize reporting on Stop and Watch forms with gift card, certific te, and celebration.

Data display and visualization can help facilities understand the successes they have achieved and any missed opportunities. Below is an example of summarized data from the HAI-related hospitalization improvement project provided by some of the participating Collaboratives in this PIP.



Action Step 11. Identify the Root Cause of Problems (RCA)

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Collaboratives will want to approach root cause analysis from both the Collaborative and individual facility level. Root cause analysis is based on data to ensure the intervention addresses the core issue and may vary among Collaborative members, depending on the issue. Several Collaboratives had success in implementing the same intervention across all members to address a common root cause. In Collaboratives where members chose their intervention individually, small groups were formed by grouping common root causes/interventions. This allowed members to discuss common barriers and ways to overcome the barriers with each other in either situation. For more discussion on *Action Step 11*, see the previous section *Utilizing QAPI as a Collaborative*.

IMPORTANT NOTE: The most frequently encountered barrier to a Collaborative's success was overcoming biases and preconceived ideas about the root cause of a problem. It is critical that a true focused and data-based root cause analysis be completed by each facility for each PIP. Although Collaborative members may discuss the "how-to" of root cause analysis and brainstorm possible root causes of a particular challenge, the actual root cause must be validated by PIP data.

BEWARE: LISTEN TO YOUR DATA!

We observed that Collaboratives often prematurely identified ASSUMED root causes for problems prior to a detailed analysis of the data. Once data analysis was conducted, other root causes frequently emerged and the assumptions were shown to be incorrect.

Action Step 12. Take Systemic Action

Systemic change lives beyond the timeline of the PIP. Once the planned timeline is complete, the facility should consider how successful interventions should be continued, reinforced, and expanded, if applicable. If the initial intervention(s) were implemented in a specific unit or floor, successful interventions should be expanded to additional areas of the facility or of the corporate enterprise. The facility should also consider which interventions were not successful. If initial interventions did not produce desired results, Collaboratives and facilities should reassess the root cause, strength of the intervention chosen and if the intervention was implemented as planned. Facilities should continue to monitor ongoing practice and continually identify new ways to improve outcomes and quality of care. This process of planning, intervening, measuring, and implementing fully is known as the **Plan | Do | Study | Act** model. Collaboratives may want to continue data reporting and monitoring after the time of focus on any given PIP to ensure the process change is stable and any decreases in quality are quickly identified and addressed.

Additional Resources

STOP AND WATCH LETTER (STAFF)

Community Care Connections

Stop and Watch: A Tool to Improve the Health of Our Residents

Dear Staff Member:

As part of the Community Care Connections Collaborative, an Indiana Healthcare Quality Improvement Collaborative led by Reid Hospital and funded by The Indiana State Department of Health with support from the University of Indianapolis' Center for Aging and Community, our facility has chosen to implement a new tool to detect changes in condition among our residents. This tool, called Stop and Watch, will assist us in earlier identification of potential complications or health problems so that interventions can be implemented. Ideally, we will be able to identify signs of potential infection earlier, be able to treat our residents here in the facility, and prevent unnecessary hospitalizations. This initiative is a vital part of our effort to reduce hospitalizations related to healthcare acquired infections as a collaborative quality assurance and process improvement (QAPI)process. Participating in QAPI projects helps us to meet requirements that our surveyors will be monitoring and requesting.

What is Stop and Watch?
Stop and Watch is a tool developed by Florida Atlantic University as part of the INTERACT tools used in skilled nursing facilities. It encourages reporting any of the following changes in a residents condition:
Seems different than normal
Talks or communicates less
Overall needs more help
Pain- new or worsening; participated in less activity
Ate Less
No bowel movement in 3 or more days or has diarrhea
Drank less
Weight change
Agitated or nervous more than usual
Tired, weak, confused, or drowsy
Change in skin color or condition
Help with walking, transferring, toileting more than usual

Why are we doing this? Isn't this something we already do?
We want our residents to have the best care possible, in the right setting at the right time. We want the family members of our residents to be confident that we are striving to provide the best care to their loved ones and that we are continually looking to improve processes to be even better. While we may have similar efforts in place, this project is bringing new life to those efforts. We will be working hard to standardize the process throughout the facility, ensuring that EVERYONE is on board with the initiative.

Who completes a Stop and Watch form to report a change in condition?
Anyone can complete a Stop and Watch form. If a change is noted in a resident, the form should be completed and provided to the nurse responsible for the resident. That nurse will then assess the resident and follow up with the provider as needed.

How will I have time to keep up with this and my other duties?
Utilizing Stop and Watch actually saves time in the long run. The time taken to complete a Stop and Watch form or to perform a focused assessment based on a reported change is minimal compared to the time required to transfer a resident out of the facility. When you consider the time spent preparing for the transfer and all of the steps that go into that, as well as the time spent when the resident returns to the facility, Stop and Watch is a much simpler process for everyone involved.

How can you help in this effort?
Many of the problems leading to hospitalization s related to healthcare acquired infections can be handled here at our facility. Most often, this can be prevented through the initiation of antibiotics, increasing fluid intake, increased monitoring, more frequent mobility, etc. You are also integral in the communication to our residents and families . When you portray confidence in our abilities to handle these concerns, it makes the residents and families feel at ease in our care.

Thank you for your assistance and cooperation with this initiative.

If you have questions about the use of Stop and Watch, please contact _____

Warmest regards,

Facility Administrator

Indiana State Department of Health

CAC University of Indianapolis Center for Aging & Community

STOP AND WATCH FORM

STOP and WATCH

If you have identified a change while caring for or observing a resident, please check the box corresponding to the change and notify a nurse.

□**S**eems different than normal

□**T**alks or communicates less

□**O**verall needs more help

□**P**ain- new or worsening; Participated in less activities

□**A**te less

□**N**o bowel movement in 3 days or diarrhea

□**D**rank less

□**W**eight Change

□**A**gitated or nervous more than usual

□**T**ired, weak, confused, or drowsy

□**C**hange in skin color or condition

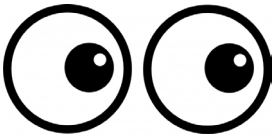
□**H**elp with walking, transferring, toileting more than usual

Please complete for tracking purposes		
Resident Name		
Person Reporting		**Date:** **Time:**
Person Reported To		
Nurse Response	□ Resident assessment □ Notified physician □ Notified family □ Other: _____	**Date:** **Time:**
Signature of Nurse Responsible		

STOP AND WATCH POSTER

Community Care Connections

A regional collaborative focused on improving the quality of care for nursing home residents led by Reid Hospital, funded by Indiana State Department of Health, and supported by University of Indianapolis' Center on Aging and Community

S	Seems different than normal	
T	Talks or communicates less	
O	Overall needs more help	
P	Pain- new or worsening; Participated in less activities	
a	Ate less	
n	No bowel movement in 3 days or diarrhea	
d	Drank less	
W	Weight Change	
A	Agitated or nervous more than usual	
T	Tired, weak, confused, or drowsy	
C	Change in skin color or condition	
H	Help with walking, transferring, toileting more than usual	

Report Changes in Condition			
Immediate Notification Any symptom , sign, or apparent discomfort that is: ☐ Acute or sudden in onset, and: ○ Is more severe than usual symptoms or is unrelieved by currently prescribed measures ***Non-Immediate Notification*** New or worsening symptoms that do not meet above criteria			
	Sign or Symptom	**Immediate Notification**	**Non-Immediate Notification**
Vital Signs	Blood pressure	Systolic blood pressure >200 or <90 Diastolic blood pressure >115	Diastolic >90
	Pulse	Resting pulse >100 or <50	New irregular pulse
	Respiratory rate	Respirations >28 or <10	
	Temperature	Oral temp >100.5	
	Weight loss		New onset of anorexia with or without weight loss Loss of 5% or more within 30 days Loss of 10% or more within 6 months
	Weight gain		Weight gain of 5lbs or more in one week in resident with: ☐ Congestive heart failure ☐ Chronic renal failure ☐ Other volume overload state
Lab Tests/Diagnostic Procedures	Complete blood count (CBC)	WBC >14,000 Platelets <50,000 Hemoglobin <8 Hematocrit <24	WBC >10,000 without symptoms or fever
	Chemistry	Blood urea nitrogen (BUN) >60 Calcium >12.5 Potassium <3 or >6 Sodium <125 or >155 Blood glucose >300 or <70	Glucose consistently >200
	Consult reports	Report recommending any immediate action or changes in management	Report recommending routine action or changes in resident's management
	Drug levels	Levels above therapeutic range of any drug	Any therapeutic or low level
	INR	INR >6	INR 3-6
	Urinalysis	Abnormal result with signs and symptoms related to UTI or urosepsis	Abnormal result in resident with no signs or symptoms
	Urine culture	>100,000 colony count of a urinary pathogen with symptoms	Any growth with no symptoms
	X-ray	New or unsuspected finding (fracture, pneumonia, CHF)	Old or long-standing finding with no change

**Adapted from INTERACT tools developed by Florida Atlantic University*

STOP AND WATCH POCKET CARD

STOP and WATCH

Seems different than normal
Talks or communicates less
Overall needs more help
Pain- new or worsening; Participated in less activities

Ate less
No bowel movement in 3 days or diarrhea
Drank less

Weight Change
Agitated or nervous more than usual
Tired, weak, confused, or drowsy
Change in skin color or condition
Help with walking, transferring, toileting more than usual

Report Changes in Condition

Immediate Notification

Any symptom, sign, or apparent discomfort that is:

- Acute or sudden in onset, and:
  - Is more severe than usual symptoms or is unrelieved by currently prescribed measures

Non-Immediate Notification

New or worsening symptoms that do not meet above criteria

STOP AND WATCH LETTER (FAMILY)

Community Care Connections

Stop and Watch: A Tool to Improve the Health of Our Residents

Dear Resident/Family member:

As part of the Community Care Connections Collaborative, an Indiana Healthcare Quality Improvement Collaborative led by Reid Hospital and funded by The Indiana State Department of Health with support from the University of Indianapolis' Center for Aging and Community, our facility has chosen to implement a new tool to detect changes in condition among our residents. This tool, called Stop and Watch, will assist us in earlier identification of potential complications or health problems so that interventions can be implemented. Ideally, we will be able to identify signs of potential infection earlier, be able to treat our residents here in the facility, and prevent unnecessary hospitalizations.

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Why are we doing this?
We want our residents to have the best care possible, in the right setting at the right time. We want the family members of our residents to be confident that we are striving to provide the best care to their loved ones and that we are continually looking to improve processes to be even better.

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If you have questions about the use of Stop and Watch, please contact
_____

Warmest regards,

Facility Administrator

Indiana State Department of Health

CAC University of Indianapolis Center for Aging & Community

STOP AND WATCH LOG

Instructions for Completing Stop and Watch Log
1. Resident ID
Enter an identific tion number by which you can identify the resident. This is solely for the use of your facility and should not be identifi ble to others who may view this report.
2. Date Reported
Enter the date the Stop and Watch form was completed and reported.
3. Time Reported
Enter the time the Stop and Watch form was reported.
4. Nurse Response
Type the response that the nurse has selected from the Stop and Watch form. There may be more than one response. If so, simply type each of them in the same fi ld.
5. Time of Response
Enter the time the nurse took action on the Stop and Watch form.
6. Did this result in resident transfer?
Select Yes or No from the drop down.
7. Did this result in resident hospitalization?
Select Yes or No from the drop down
Submit log to Billie Kester by the 5th of each month.

Instructions for Completing Stop and Watch Log						
Resident ID	**Date Reported**	**Time Reported**	**Nurse Response**	**Time of Response**	**Did this result in resident transfer?**	**Did this result in resident hospitalization?**

HOSPITALIZATION TRACKING LOG

Resident Transfer Tracking Form

Resident Name: _____ Resident Number: _____ MD: _____

Date of Transfer:____/____/____ Time of Transfer: ____:_____ (AM/PM)

Purpose of Nursing Home Stay ☐ Post-Acute Care ☐ Chronic Long Term Care

Primary Sign/Symptom Leading to Transfer

- ☐ Abdominal pain
- ☐ Abnormal lab/test
- ☐ Abnormal vital sign
- ☐ Altered mental status
- ☐ Behavioral symptoms
- ☐ Bleeding, other than GI
- ☐ Blood sugar abnormality
- ☐ Chest pain
- ☐ Constipation
- ☐ Diarrhea
- ☐ Edema
- ☐ EKG changes
- ☐ Fall
- ☐ Fever
- ☐ Functional decline
- ☐ GI bleed
- ☐ Loss of consciousness
- ☐ Nausea and vomiting
- ☐ Nutrition
- ☐ Pain
- ☐ Pressure ulcer/wound
- ☐ Shortness of breath
- ☐ Trauma
- ☐ Unresponsive
- ☐ Weight Loss
- ☐ Other

Primary Diagnosis Leading to Transfer

- ☐ Acute renal failure
- ☐ Anemia
- ☐ C. Difficile
- ☐ Cardiac arrest
- ☐ Cellulitis
- ☐ CHF
- ☐ COPD
- ☐ Dehydration
- ☐ DVT
- ☐ Failure to thrive
- ☐ Fracture
- ☐ Gastroenteritis
- ☐ Hyper/hypotension
- ☐ Pneumonia/Bronchitis
- ☐ Respiratory arrest
- ☐ Respiratory infection
- ☐ Seizure
- ☐ Sepsis
- ☐ Surgical procedure
- ☐ Stroke/Other neuro
- ☐ UTI
- ☐ Other

Is transfer related to infection? ☐ Yes ☐ No

Has resident had a hospital stay within the last 30 days? ☐ Yes ☐ No

IF YES:
What was the latest hospital discharge date for the resident? _____

Diagnosis from Prior Hospitalization

- ☐ Acute renal failure
- ☐ Anemia
- ☐ C. Difficile
- ☐ Cardiac arrest
- ☐ Cellulitis
- ☐ CHF
- ☐ COPD
- ☐ Dehydration
- ☐ DVT
- ☐ Failure to thrive
- ☐ Fracture
- ☐ Gastroenteritis
- ☐ Hyper/hypotension
- ☐ Pneumonia/Bronchitis
- ☐ Respiratory arrest
- ☐ Respiratory infection
- ☐ Seizure
- ☐ Sepsis
- ☐ Surgical procedure
- ☐ Stroke/Other neuro
- ☐ UTI
- ☐ Other

What the previous hospitalization related to infection? ☐ Yes ☐ No

Form completed by: _____

HOSPITALIZATION TRACKING LOG, continued

Average Daily Census by Month			
Month	Average Daily Census for Post-Acute Care Residents	Average Daily Care for Chronic Long Term Care Residents	Combined Average Daily Census for the Month (Autocalculates)
January 2016			
February 2016			
March 2016			
April 2016			
May 2016			
June 2016			
July 2016			
August 2016			
September 2016			
October 2016			
November 2016			
December 2016			

Hospital Transfer									Readmission			
Resident ID	Purpose of Nursing Home Stay	Date of Hospital Transfer MM/DD/YY	Transfer Time of Day	Physician Ordering Transfer (ex. Smith, P.)	Primary Sign/ Symptom Leading to Transfer	Primary Diagnosis Leading to Transfer	Related to HAI	Outcome of Hospital Transfer	30 Day Readmission	Date of Prior Hospital Discharge MM/DD/YY	Diagnosis of Prior Hospital Admission	Related to HAI

9

Reducing Pneumonia Toolkit

9. Reducing Pneumonia Toolkit

Congratulations on forming your Collaborative for Quality Improvement in Long Term Care! We hope the toolkit was helpful in establishing your Collaborative and in learning about and working through the CMS Quality Assurance and Performance Improvement model (QAPI). As part of *Action Step 8. Identify Gaps & Opportunities*, your Collaborative will have created a list of opportunities for performance improvement and will have prioritized these opportunities as the beginning of *Action Step 9. Prioritize and Charter Projects (PIPs)*. This section will walk through Action Steps 9–12 for a project focused on reducing the rates of **pneumonia occurrences** in nursing facilities. Recommendations are based on the experience of the 2015–2016 Regional Healthcare Quality Improvement Collaboratives, specifically the East Central Indiana Collaborative (ECIC).

Action Step 9. Prioritize and Charter Projects (PIPs)

Once you have prioritized reducing pneumonia occurrences as an opportunity to be addressed by your Collaborative, you will need to create a Collaborative Project Charter. The project charter will serve as the guiding document for the Collaborative project. Individual facilities may adjust the Collaborative charter slightly – updating the scope, project team, and materials – to reflect their individual facility and will use this as the contract between leadership and the project team. The project charter is created at the beginning of the project to clarify what is expected of the team. For a full discussion of developing a project charter, see the previous section *Utilizing QAPI as a Collaborative, Action Step 9. Prioritize and Charter Projects (PIPs)*. The discussion below will focus on creating a charter for a project to address reducing occurrences of pneumonia.

PROBLEM STATEMENT

The problem statement is the reason for action; why this project was chosen and why it should be addressed now.

Sample problem statement for reducing occurrences of pneumonia:

- **Collaborative data shows 134 occurrences of pneumonia in the baseline observation period, which is higher than desired. Pneumonia can lead to increased hospital admissions and rates of morbidity and mortality, and creates a costly financial burden on facilities and health care systems.**

BACKGROUND

This is the background leading up to the need for this specific project.

A sample background for a project to reduce occurrences of pneumonia:
Residents in long term care facilities are at a greater risk of developing infectious diseases, such as pneumonia, due to disabilities and underlying medical illnesses. Pneumonia is the leading cause of hospitalization and mortality in long term care facilities. Due to the increase in hospitalization, pneumonia costs facilities and health care systems countless amounts of money per year. It is estimated that the number of frail older adults living in long term care facilities is expected to increase over the next 30 years[14]. Due

[14] *Pneumonia in Older Residents of Long Term Care Facilities - American Family Physician. (n.d.). Retrieved from http://www.aafp.org/afp/2004/1015/p1495.html#afp20041015p1495-b2*

to this population's susceptibility to infectious diseases, it is safe to assume there will also be an increase in infectious diseases, hospitalizations, and financial burdens[15]. According to the Healthcare Costs and Utilizations Project (HCUP) in 2011, pneumonia was listed as number seven out of the top 10 most expensive conditions treated in U.S. hospitals, costing nearly $10.6 billion. It is also listed as one of the top five most expensive conditions for Medicare and Medicaid (most costly inpatient hospital conditions to treat, 2013)[16].

AIM STATEMENT

The aim statement answers the question "What is the Collaborative trying to accomplish?" This should be stated as a SMART goal (specific, measureable, achievable, reasonable, and timely) and often includes the baseline metric. "We want to improve (metric) from (initial state) to (target state) by (target date)."

Sample aim statements for reducing occurrences of pneumonia:

- **Our Collaborative aims to collectively reduce occurrences of pneumonia among residents by 10% in 2015 as compared to the same period in 2014.**
- **Our Collaborative aims to collectively reduce pneumonia occurrences from 10% to 7% starting January 1, 2016 to June 1, 2016.**

PROJECT SCOPE

The project scope outlines the specifics of the project as related to goals; what is included/excluded. This may be different for each facility as they may target different units/floors/populations within their buildings.

Sample project scope statements for reducing occurrences of pneumonia:

- **Facilities should analyze their data at the level of floor/unit/population to see where the highest occurrences of pneumonia are within the facility. The project should focus on this area first for the greatest impact.**

PROJECT METRICS

Project metrics tell how you will measure project efforts to show what was achieved. This includes baseline data (initial state). Other metrics to consider are secondary metrics (welcomed side effects), consequential metrics (unwelcomed side effects) and financial (any costs incurred or saved due to the project) metrics. The secondary and consequential metrics may be different across members as they may relate to the specific intervention. Previously, Collaboratives tracked and reported metrics as an average of all participating members. This allowed for group cohesion, a shared goal, and cleaner reporting of project outcomes. It also may blur outcomes as stronger performing members may "pick up the slack" for poorer performing members. Each Collaborative should decide if they will look at these metrics averaged across all members or by individual member facility.

Sample Metrics:

- **Primary Metric** – This is the main indicator to be measured. It defines the project goal and measures baseline and improvement at end of project. Sample metrics for pneumonia occurrences:

  Metric: Rate of occurrences of pneumonia

[15] Retrieved from http://www.ipac-canada.org/IPAC-EO/2012_ASP_LTC_PROTOCOLS.pdf

[16] Most costly inpatient hospital conditions to treat. (n.d.). Retrieved from http://www.healthcarebusinesstech.com/costly-inpatient-treatments/

Calculation: # of occurrences of pneumonia/ total # of residents
Baseline: Rate of occurrences of pneumonia during the same time period as the project in an earlier year
Data Source: Infection Control Logs. Infection control logs are an accessible and existing data source across facilities.
Additional Considerations: Pneumonia occurrences have seasonal variations (higher in winter months than summer). Utilizing data from the same time period but the year prior will give a more accurate reflection of progress and impact of process changes. For example, if the project is run November–December 2015, baseline data is pulled from November–December 2014 rather than August–October 2015.

- **Secondary Metric** – This metric captures, validates, and tracks welcome side effects of the project. This may differ among participating facilities due to different interventions.

  Metric: Percent of residents assessed and appropriately given the pneumococcal vaccine
  Calculation: # of residents assessed and appropriately given the pneumococcal vaccine/total number of residents x 100
  Baseline: Percent of residents assessed and appropriately given the pneumococcal vaccine during the same time period of a previous year
  Data Source: Infection Control Logs. Infection control logs are an accessible and existing data source across facilities.
  Additional Considerations: Can be further broken down by short- and long-stay residents

  For projects that include interventions that improve hand hygiene or general infection prevention best practices:
  Metric: Rate of other healthcare associated infections
  Calculation: Total # of residents with other health care acquired infections/Total # of residents
  Baseline: Rate of healthcare associated infections prior to the start of the project
  Data Source: Infection control logs
  Additional Considerations: When tracking other healthcare associated infections maintain consistency across the types of infections tracked between baseline and outcome and across facilities.

  Metric: Rate of staff sick leave usage
  Calculation: Total # of staff who took sick leave/Total # of staff
  Baseline: Rate of staff sick leave usage prior to the start of the project
  Data Source: Human Resource records

- **Consequential Metric** – This metric captures, validates, and tracks unwelcome side effects of the project. This may differ among participating facilities due to different interventions.

  Metric: Rates of antibiotic use
  Calculation: # of patients given an antibiotic/total # of residents
  Baseline: Rates of antibiotic use in the same time period a year prior
  Data Source: Medication administration records

Metric: Rates of resident isolation
Calculation: # of patients placed on isolation precautions/total # of residents
Baseline: Rates of resident isolation in the same time period a year prior
Data Source: Infection log

- **Financial Metric** – This metric links project progress to financial outcomes.
  Metric: Savings due to prevented pneumonia occurrences
  Calculation: (Expected # of pneumonia occurrences for project period – total # of pneumonia occurrences in project period) X cost per pneumonia occurrence
    - Expected # of pneumonia occurrences for project period = monthly baseline rate x # of residents x number of months in project period
    - Cost to treat occurrence of pneumonia in 1998 = $458[17]. When factoring in inflation, $668.58 in 2015.

PROJECT TIMELINE

The project timeline will detail start and end points of the project and milestones along the way.

Collaboratives found that a pneumonia prevention PIP required at least three months to plan and initiate and at least three months after initial implementation to be able to observe a shift in metrics. Collaboratives will want to consider the time of year when implementing a pneumonia prevention PIP due to seasonal trends of pneumonia.

PROJECT TEAM AND ROLES

The project team outlines who will be involved in the project and what will be their role on the team. This clarifies responsibility and accountability, and ensures all necessary people are included. For a PIP on reducing rates of pneumonia occurrences it is recommended that the project team include the facilities' infection preventionist/infection control officer for overall guidance and best practices and the front line staff (nurses and certified nurses' assistants) who are responsible for the daily care of residents and will carry out the process change.

MATERIAL RESOURCES REQUIRED

Any materials such as equipment, software, or supplies that will be needed for the project should be included in this section. This will likely be intervention dependent. This may include:

- **Data tracking log (see end of section)**

BARRIERS

This includes barriers that may impede progress on the project and how to overcome them. Discussing barriers and ways to address them as a group allows members to support and collaborate with each other, increasing the likelihood of avoiding challenges and achieving success for the project.

[17] *Kruse, R. L., Boles, K. E., Mehr, D. R., Spalding, D., & Lave, J. R. (2003). The Cost of Treating Pneumonia in the Nursing Home Setting. Journal of the American Medical Directors Association, 4(2), 81-89. doi:10.1016/s1525-8610(04)70280-7: When factoring in inflation, $668.58 in 2015.*

Collaboratives encountered the following barriers in their pneumonia prevention PIPs:

Barrier	Ways to Address the Barrier
Obtaining accurate data from all members	· Provide a consistent tracking tool for all members from the start. · Remind members frequently about data submission deadlines. · Publicly thank members who have submitted data at each Collaborative meeting. · Set expectations and require that facilities turn in all data to be included as a project member.
Low staff buy in	· Provide education and training for staff. · Engage staff in the QAPI process.
Isolation procedures may result in lax hand hygiene and other infection prevention processes.	· Provide education for staff. · Review proper procedures.

Action Step 10. Plan, Conduct, and Document PIPs

A **project intervention** is a strategy to improve the problem or challenge that is the subject of the PIP. Each facility should review gap analysis results to determine the best type of intervention for the stated problem. Facilities across the Collaborative can test different interventions, but should track results related to each intervention. Collaboratives should seek out evidence-based practices whenever possible. When identifying potential interventions, remember to identify assets and resources and evaluate the strength and sustainability of the intervention. For more discussion on *Action Step 10*, see the previous section *Utilizing QAPI as a Collaborative*.

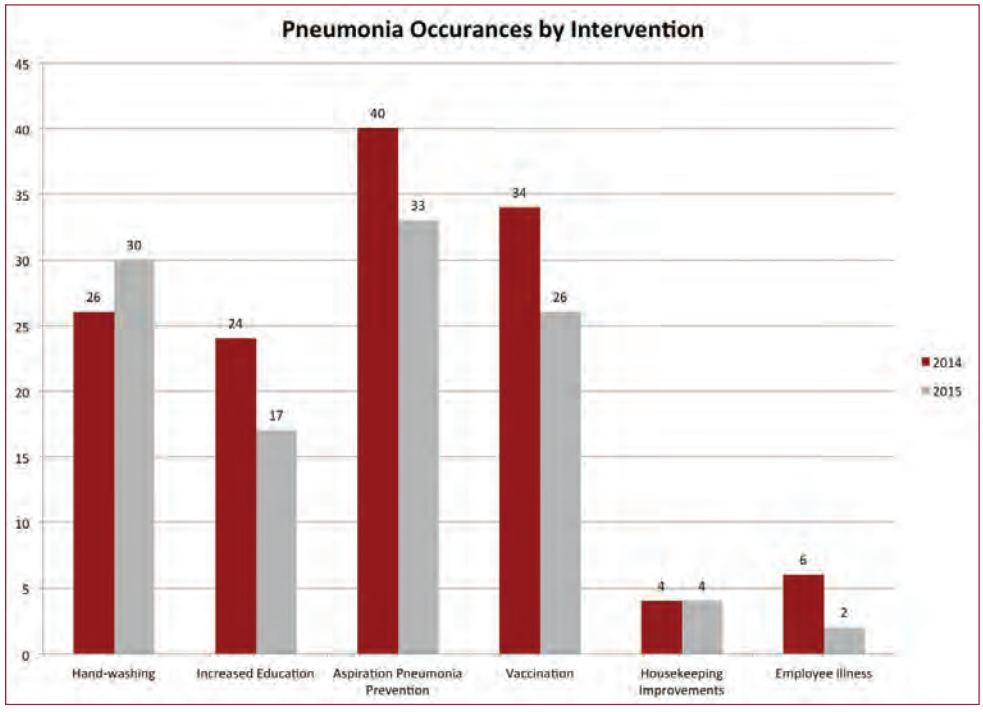
RESOURCE: Data intervention activity worksheet

As introduced previously, the collaborative can use the *Data-Intervention Worksheet (Appendix A12)* to facilitate the selection of an intervention(s) for the chosen PIP topic. *The Facilitation Guide (Appendix A13)* provides detailed instructions on use of the worksheet to identify interventions.

Interventions utilized in previous Collaborative PIPs are detailed in the following chart.

Intervention	Intervention Metrics and/or Description	Outcomes
Staff, Residents, and Visitor Education	· Educational materials for staff, residents, and visitors. Posters, above the hand sink, info upon admission.	Occurrences ↓ 29.2%
Vaccinations	· Education to increase awareness and use of vaccines; increase the number of residents vaccinated.	Occurrences ↓ 23.5%
Aspiration Pneumonia Prevention/Early Identification	· Identify various causes and issues that have been shown to lead to aspiration pneumonia.	Occurrences ↓ 17.5%
Handwashing	· Education about handwashing for staff and visitors.	Occurrences ↑ 13.3%
Housekeeping	· Work with housekeeping staff to maintain a cleaner environment and proper handling of linens of residents under isolation to prevent illness.	Occurrences stayed the same
Employee Health	· Educate staff about impact on residents of coming to work sick with respiratory illness.	Occurrences ↓ 66.7%

Data display and visualization can help facilities understand the success they have achieved, as well as any missed opportunities. The following chart summarizes pneumonia occurrences by intervention.



Action Step 11. Identify the Root Cause of Problems (RCA)

Once a problem has been identified, a variety of tools can be used to identify the root cause(s) that should be addressed with an intervention(s). CMS provides a ***Guide to Root Cause Analysis*** (see *Appendix B* for full website) within the QAPI program.

Collaboratives will want to approach root cause analysis from both the Collaborative and individual facility level. Root cause analysis is based on data to ensure the intervention addresses the core issue and may vary among Collaborative members, depending on the issue. Several Collaboratives had success in implementing the same intervention across all members to address a common root cause. In Collaboratives where members chose their intervention individually, small groups were formed by grouping common root causes/ interventions. This allowed members to discuss common barriers and ways to overcome the barriers with each other in either situation. For more discussion on *Action Step 11*, see the previous section *Utilizing QAPI as a Collaborative*.

IMPORTANT NOTE: The most frequently encountered barrier to a Collaborative's success was overcoming biases and preconceived ideas about the root cause of a problem. It is critical that a true focused and data-based root cause analysis be completed by each facility for each PIP. Although Collaborative members may discuss the "how-to" of root cause analysis and brainstorm possible root causes of a particular challenge, the actual root cause must be validated by PIP data.

BEWARE: LISTEN TO YOUR DATA!

We observed that Collaboratives often prematurely identified ASSUMED root causes for problems prior to a detailed analysis of the data. Once data analysis was conducted, other root causes frequently emerged and the assumptions were shown to be incorrect.

Action Step 12. Take Systemic Action

Systemic change lives beyond the timeline of the PIP. Once the planned timeline is complete, the facility should consider how successful interventions should be continued, reinforced, and expanded, if applicable. If the initial intervention(s) were implemented in a specific unit or floor, successful interventions should be expanded to additional areas of the facility or of the corporate enterprise. The facility should also consider which interventions were not successful. If initial interventions did not produce desired results, Collaboratives and facilities should reassess the root cause, strength of the intervention chosen and if the intervention was implemented as planned. Facilities should continue to monitor ongoing practice and continually identify new ways to improve outcomes and quality of care. This process of planning, intervening, measuring, and implementing fully is known as the **Plan | Do | Study | Act** model. Collaboratives may want to continue data reporting and monitoring after the time of focus on any given PIP to ensure the process change is stable and any decreases in quality are quickly identified and addressed.

Additional Resources

DATA TRACKING LOG

Project 1 Reporting Form

Facility Name:

Contact Person:

Date:

Chosen Intervention:

Pneumonia Rates (from infection control log):

Aug-14		Aug-15	
Sep-14		Sep-15	
Oct-14		Oct-15	
Nov-14		Nov-15	

Intervention Specifics

Education:

Group Trained | # of people

Date

Training material

Group Trained | # of people

Date

Training material

Other system changes:
(staffing, forms, etc)

Unintended secondary consequences
(i.e. increased expenses, increased staff absenteeism, etc)

Groups/Individuals involved in the project:

Person/Group	Involvement

Other lessons learned:

Other Comments or Feedback

10
Reducing UTIs Toolkit

10. Reducing UTIs Toolkit

Congratulations on forming your Collaborative for Quality Improvement in Long Term Care! We hope the toolkit was helpful in establishing your Collaborative and in learning about and working through the CMS Quality Assurance and Performance Improvement model (QAPI). As part of *Action Step 8. Identify Gaps & Opportunities*, your Collaborative will have created a list of opportunities for performance improvement and will have prioritized these opportunities as the beginning of *Action Step 9. Prioritize and Charter Projects (PIPs)*. This section will walk through Action Steps 9–12 for a project focused on reducing the rates of **urinary tract infections (UTIs)** in nursing facilities. Recommendations are based on the experience of the 2015–2016 Regional Healthcare Quality Improvement Collaboratives, specifically Central Indiana Nursing Home Improvement Collaborative (CINHIC), North Central Indiana Quality Improvement Collaborative (NCIQIC), Quality Improvement Collaborative of Northeast Indiana (QICNE), Southern Indiana Regional Collaborative (SIRC), Southwestern Indiana Collaborative for Performance Improvement (SWICPI).

Action Step 9. Prioritize and Charter Projects (PIPs)

Once you have prioritized reducing UTIs as an opportunity to be addressed by your Collaborative, you will need to create a Collaborative Project Charter. The project charter will serve as the guiding document for the Collaborative project. Individual facilities may adjust the Collaborative charter slightly – updating the scope, project team, and materials – to reflect their individual facility and will use this as the contract between leadership and the project team. The project charter is created at the beginning of the project to clarify what is expected of the team. For a full discussion of developing a project charter, see the previous section *Utilizing QAPI as a Collaborative, Action Step 9. Prioritize and Charter Projects (PIPs)*. The discussion below will focus on creating a charter for a project to address reducing rates of UTIs.

PROBLEM STATEMENT

The problem statement is the reason for action; why this project was chosen and why it should be addressed now.

Sample problem statement for reducing rates of UTIs:

- **Collaborative rates of urinary tract infections (UTIs) are higher than state benchmarks. UTIs can lead to many negative outcomes, which include hospital readmissions, increased risk of falls or challenging behaviors, and/or decreased quality of life. UTIs are also expensive for facilities and health care systems, costing an average of $1,000 per incident[18].**

BACKGROUND

This is the background leading up to the need for this specific project.

Sample background for a project to reduce rates of UTIs:
There are many factors that could lead to increased UTI rates, such as lack of staff knowledge of infection prevention techniques, decreased hydration for residents, unnecessary urinalysis testing, and false positive UTI diagnoses. Poor hand hygiene is also frequently cited on state surveys, which increases healthcare associated infection (HAI) rates, and negatively impacts overall resident health and CMS quality measures.

[18] *https://www.vdh.virginia.gov/Epidemiology/Surveillance/HAI/uti.htm*

CMS quality measures greatly impact facility five-star ratings, ultimately affecting marketing strategies, and in the state of Indiana, influences facility reimbursement rates.

AIM STATEMENT

The aim statement answers the question "What is the Collaborative trying to accomplish?" This should be stated as a SMART goal (specific, measureable, achievable, reasonable, and timely) and often includes the baseline metric. "We want to improve (metric) from (initial state) to (target state) by (target date)."

Sample aim statements for reducing rates of UTIs:

- **Our Collaborative aims to collectively reduce rates of facility acquired UTI from 10% to below state average (5%), within four months from January 1, 2016.**
- **Our Collaborative aims to collectively reduce the rate of UTIs by 10% (from 8% to 7.2%) by May 1, 2016.**
- **Our Collaborative aims to reduce UTI rates by 5% in each facility, within four months from January 1, 2016.**

PROJECT SCOPE

The project scope outlines specifics of the project as related to goals; what is included/excluded. This may be different for each facility as they may target different units/floors/populations within their buildings.

Sample project scope statement for reducing rates of UTIs:

- **Facilities should analyze their data at the level of floor/unit/population to see where the highest rates of UTIs are within the facility. The project should focus on this area first for the greatest impact. For example, several Collaboratives found that rates of UTIs were highest on their Dementia units.**

PROJECT METRICS

Project metrics tell how you will measure project efforts to show what was achieved. This includes baseline data (initial state). Other metrics to consider are secondary metrics (welcomed side effects), consequential metrics (unwelcomed side effects) and financial (any costs incurred or saved due to the project) metrics. The secondary and consequential metrics may be different across members as they may relate to the specific intervention. Previously, Collaboratives tracked and reported metrics as an average of all participating members. This allowed for group cohesion, a shared goal, and cleaner reporting of project outcomes. It also may blur outcomes as stronger performing members may "pick up the slack" for poorer performing members. Each Collaborative should decide if they will look at these metrics averaged across all members or by individual member facility.

Sample Metrics:

- **Primary Metric** – This is the main indicator to be measured. It defines the project goal and measures baseline and improvement at end of project. Sample metrics for UTIs:

  Metric: Rate of residents with UTIs

  Calculation: # of residents with UTI/# of residents

  Baseline: Rate of residents with UTI prior to the start of the project

  Data Source: Infection Control Logs. Infection control logs are an accessible and existing data source across facilities.

Additional Considerations: Can be further broken down to rates of healthcare associated vs. present on admission UTIs

- **Secondary Metric** – This metric captures, validates, and tracks welcome side effects of the project. This may differ among participating facilities due to different interventions.

  Metric: Rate of residents with Catheter Associated UTIs (CAUTIs)
  Calculation: Total # of residents with CAUTI/ Total # of residents
  Baseline: Rate of residents with CAUTI prior to the start of the project
  Data Source: Infection Control Logs. Infection control logs are an accessible and existing data source across facilities.
  Additional Considerations: Can be further broken down to rates of HAI vs. present on admission UTIs

For projects that include interventions that improve hand hygiene or general infection prevention best practices:

Metric: Rate of other healthcare associated infections
Calculation: Total # of residents with other health care acquired infections/Total # of residents
Baseline: Rate of other healthcare associated infections prior to the start of the project
Data Source: Infection control logs
Additional Considerations: When tracking other healthcare associated infections maintain consistency across the types of infections tracked between baseline and outcome and across facilities.

Metric: Rate of staff sick leave usage
Calculation: Total # of staff who took sick leave/Total # of staff
Baseline: Rate of staff sick leave usage prior to the start of the project
Data Source: Human Resources records

- **Consequential Metric** – This metric captures, validates, and tracks unwelcome side effects of the project. This may differ among participating facilities due to different interventions.

  Metric: Family satisfaction scores
  Calculation: Based on scoring of family satisfaction surveys
  Baseline: Family satisfaction scores prior to the start of the project
  Data Source: Family satisfaction surveys
  Additional Considerations: This should be done through a formal family survey process, but if one is not available, a simple count of family complaints can be used to give a general idea of the metric.

While this may seem counterintuitive, several Collaboratives experienced push back from families on UTI projects. This included wanting antibiotics for the residents whether indicated or not, not wanting to deal with the extra work of more frequent toileting due to a new toileting program or increased hydration, and not wanting (or knowing how) to follow proper hand hygiene practices.

- **Financial Metric** – This metric links project progress to financial outcomes.
  Metric: Savings due to prevented UTIs
  Calculation: (Expected # of UTIs for project period – total # of UTIs in project period) X cost per UTI
  - Expected # of UTIs for project period = baseline rate X # of residents X number of months in project period
  - The Virginia Department of Health reports the cost per UTI as $1,000[19].

PROJECT TIMELINE

The project timeline will detail start and end points of the project and milestones along the way.

Collaboratives found that a UTI PIP required three to six months to initiate and plan and at least three months of implementation to observe meet goals.

PROJECT TEAM AND ROLES

The project team outlines who will be involved in the project and what will be their role on the team. This clarifies responsibility and accountability, and ensures all necessary people are included. For a PIP on reducing rates of UTIs it is recommended that the project team include the facilities' infection preventions/ infection control officer for overall guidance and best practices and the front line staff (nurses and certified nurses' assistants) who are responsible for the daily care of residents and will carry out the process change.

MATERIAL RESOURCES REQUIRED

Any materials such as equipment, software, or supplies that will be needed for the project should be included in this section. This will likely be intervention dependent and this may include:

- **Scrub app for hand hygiene tracking**
- **Badge cards with the McGeer criteria for UTIs to ensure proper identification of UTIs**
- **A silver nitrate peri-wash for UTI prone residents**
- **Bladder scanner for better detection**
- **Cranberry sauce for medication administration instead of apple sauce**
- **UTI Stat for UTI prone residents**
- **Leg bags for catheterized residents to increase mobility and prevent dependent loops in catheter tubing**

BARRIERS

This includes barriers that may impede progress on the project and how to overcome them. Discussing barriers and ways to address them as a group allows members to support and collaborate with each other, increasing the likelihood of avoiding challenges and achieving success for the project.

[19] *https://www.vdh.virginia.gov/Epidemiology/Surveillance/HAI/uti.htm*

Collaboratives encountered the following barriers in their UTI PIPs:

Barrier	Ways to Address the Barrier
Obtaining accurate data from all members	· Provide a consistent tracking tool for all members from the start. · Remind members frequently about data submission deadlines. · Publicly thank members who have submitted data at each Collaborative meeting. · Set expectations and require that facilities turn in all data to be included as a project member.
Family pushback on process changes · Frequently families did not want the additional work of toileting the resident due to increased hydration or new toileting processes. · Families pushed for antibiotics even when not indicated as benefic al. · Families did not want to follow, did not know about, or did not feel comfortable speaking up about proper hand hygiene practices.	· Provide education for families and residents. · Engage families in the QAPI process.

Action Step 10. Plan, Conduct, and Document PIPs

A **project intervention** is a strategy to improve the problem or challenge that is the subject of the PIP. Each facility should review gap analysis results to determine the best type of intervention for the stated problem. Facilities across the Collaborative can test different interventions, but should track results related to each intervention. Collaboratives should seek out evidence-based practices whenever possible. When identifying potential interventions, remember to identify assets and resources and evaluate the strength and sustainability of the intervention. For more discussion on *Action Step 10*, see the previous section *Utilizing QAPI as a Collaborative*.

RESOURCE: Data intervention activity worksheet

As introduced previously, the collaborative can use the *Data-Intervention Worksheet (Appendix A12)* to facilitate the selection of an intervention(s) for the chosen PIP topic. *The Facilitation Guide (Appendix A13)* provides detailed instructions on use of the worksheet to identify interventions.

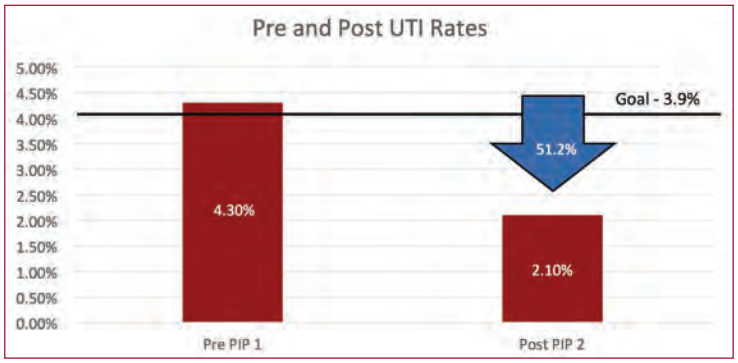
Interventions utilized in previous Collaborative PIPs are detailed in the following chart.

Region	Intervention	Intervention Metrics and/or Description	Outcomes
CINHIC, QICNE, SIRC & SWICPI	**Handwashing Hygiene for Staff**	Education and direct observation/monitoring (iScrub or other tools)	CINHIC rates ↓ by 19.53%
CINHIC, QICNE, SIRC & SWICPI	**Peri-Care**	Education and direct observation	CINHIC rates ↓ by 19.53%
CINHIC & SWICPI	**Signs & Symptoms of UTI**	Education on CDC guidelines	CINHIC rates ↓ by 51.54%
CINHIC, NCIQIC & SWICPI	**Hydration**	Education and provision of more opportunities for provision of flu ds (encouraged flu ds, hydration stations on units, extra juice pass, hydration cart)	CINHIC rates ↓ by 37.76%
CINHIC & NCIQIC	**Use of Dip Stick to ID**	Education on use	CINHIC rates ↓ by 44.96%
CINHIC	**UTI Stat for Prone Residents**	Education on use	CINHIC rates ↑ by 54.66%
NCIQIC & SIRC	**McGeer Criteria**	Implemented McGeer criteria for UTI definit on, created laminated cards to hang behind staff badges for ease of access	Not reported at intervention level.
NCIQIC	**Catheter Care Training**	Provided additional catheter care training for staff	
NCIQIC	**Evaluation of High-Risk Residents**	More frequent evaluation of residents at high-risk for UTIs.	
NCIQIC	**Purchased Bladder Scanner**	Used bladder scanner for better diagnostic capabilities	
NCIQIC, SIRC & SWICPI	**Cranberry Sauce/ Juice**	At med pass, or increased for residents at UTI risk	
NCIQIC	**Hand Hygiene**	Add hand hygiene stations on units, reinforce updated protocol	
NCIQIC	**Infection Control Logs**	Make sure these are thoroughly completed	
NCIQIC	**Family Education**	To understand why flu ds were being encouraged	

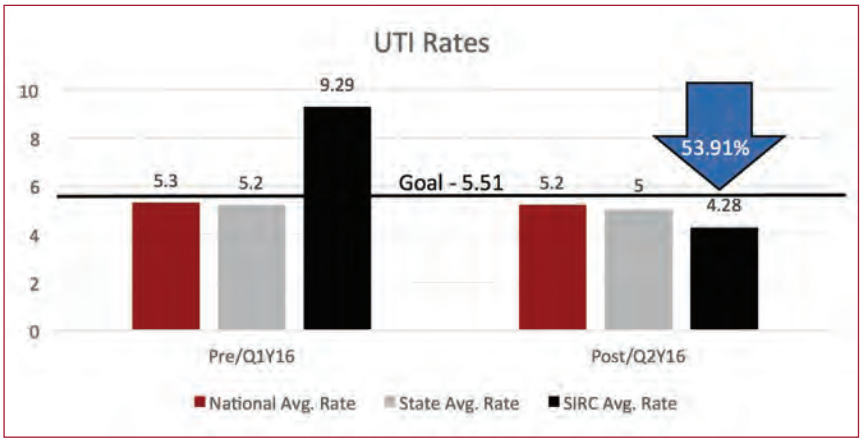
Region	Intervention	Intervention Metrics and/or Description	Outcomes
SIRC	**Leg Bags**	Provided leg bags for catheterized residents to increase mobility and prevent dependent loops in catheter tubing which is a breeding ground for organisms and promotes back-fl w of urine.	Not reported at intervention level.
SWICPI	**Interdisciplinary Team Review**	Of all suspected or confi med UTI	
SWICPI	**UTI Stat Order**	For anyone with UTI in last 45 days	
SWICPI	**Bathe with Phisoderm**	Once weekly	
NCIQIC & SWICPI	**Family & Resident Handwashing Hygiene**	Education for family and residents	
SWICPI	**Weekly Committee**	Focus on residents with UTI	

Data display and visualization can help facilities understand the successes they have achieved and any missed opportunities. Below are examples of summarized data from the UTI improvement project provided by some of the participating Collaboratives in this PIP.

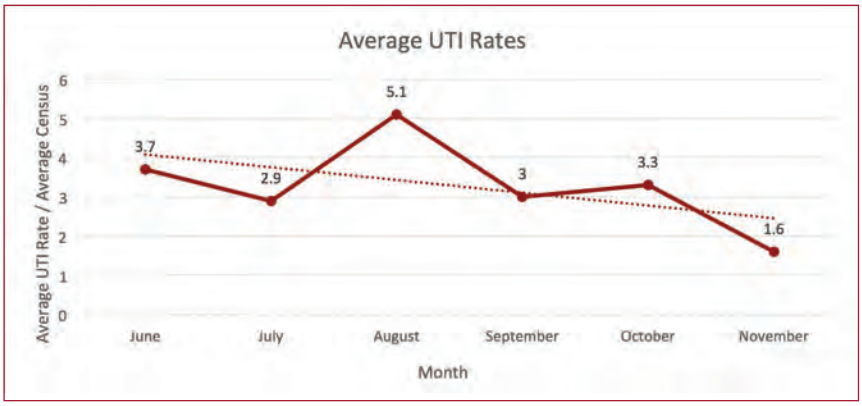
AVERAGE UTI RATES PRE AND POST INTERVENTION (CINHIC)



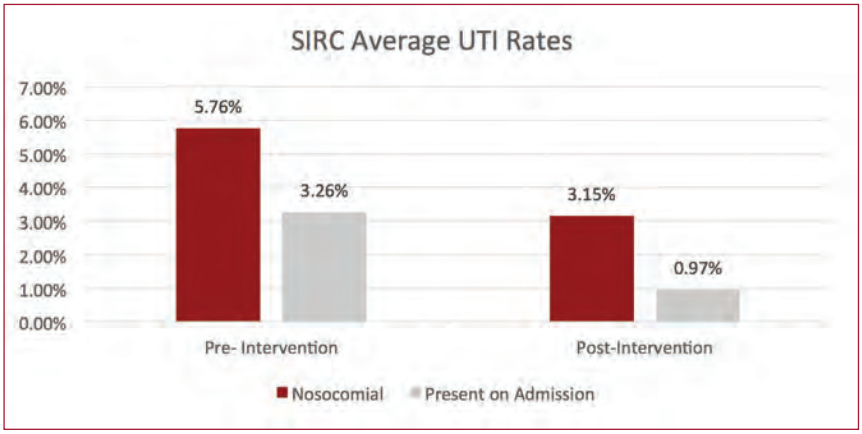
AVERAGE UTI RATES PRE AND POST INTERVENTION WITH BENCHMARKS (SIRC)



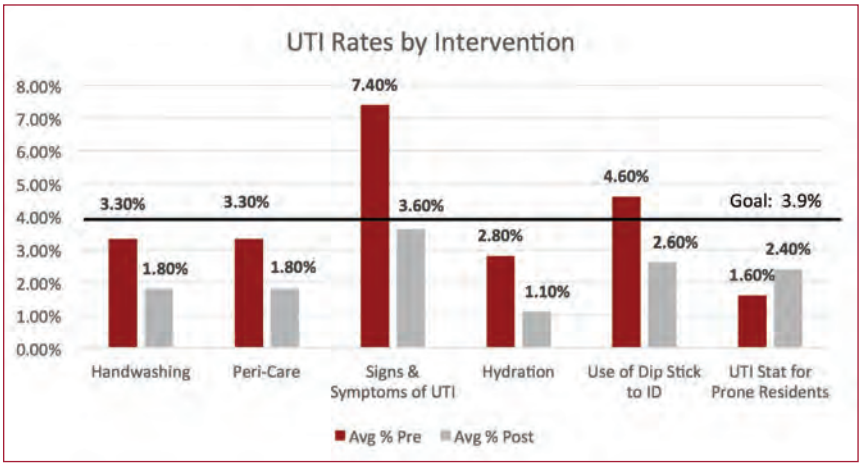
AVERAGE UTI RATE BY MONTH (NCIQIC)



AVERAGE UTI RATES – HEALTHCARE ASSOCIATED AND PRESENT ON ADMISSION (SIRC)



AVERAGE UTI RATES BY INTERVENTION (CINHIC)



Action Step 11. Identify the Root Cause of Problems (RCA)

Once a problem has been identified, a variety of tools can be used to identify the root cause(s) that should be addressed with an intervention(s). CMS provides a *Guide to Root Cause Analysis* (see *Appendix B* for full website) within the QAPI program.

Collaboratives will want to approach root cause analysis from both the Collaborative and individual facility level. Root cause analysis is based on data to ensure the intervention addresses the core issue and may vary among Collaborative members, depending on the issue. Several Collaboratives had success in implementing the same intervention across all members to address a common root cause. In Collaboratives where members chose their intervention individually, small groups were formed by grouping common root causes/interventions. This allowed members to discuss common barriers and ways to overcome the barriers with each other in either situation. For more discussion on *Action Step 11*, see the previous section *Utilizing QAPI as a Collaborative*.

IMPORTANT NOTE: The most frequently encountered barrier to a Collaborative's success was overcoming biases and preconceived ideas about the root cause of a problem. It is critical that a true focused and data-based root cause analysis be completed by each facility for each PIP. Although Collaborative members may discuss the "how-to" of root cause analysis and brainstorm possible root causes of a particular challenge, the actual root cause must be validated by PIP data.

BEWARE: LISTEN TO YOUR DATA!

We observed that Collaboratives often prematurely identified ASSUMED root causes for problems prior to a detailed analysis of the data. Once data analysis was conducted, other root causes frequently emerged and the assumptions were shown to be incorrect.

Action Step 12. Take Systemic Action

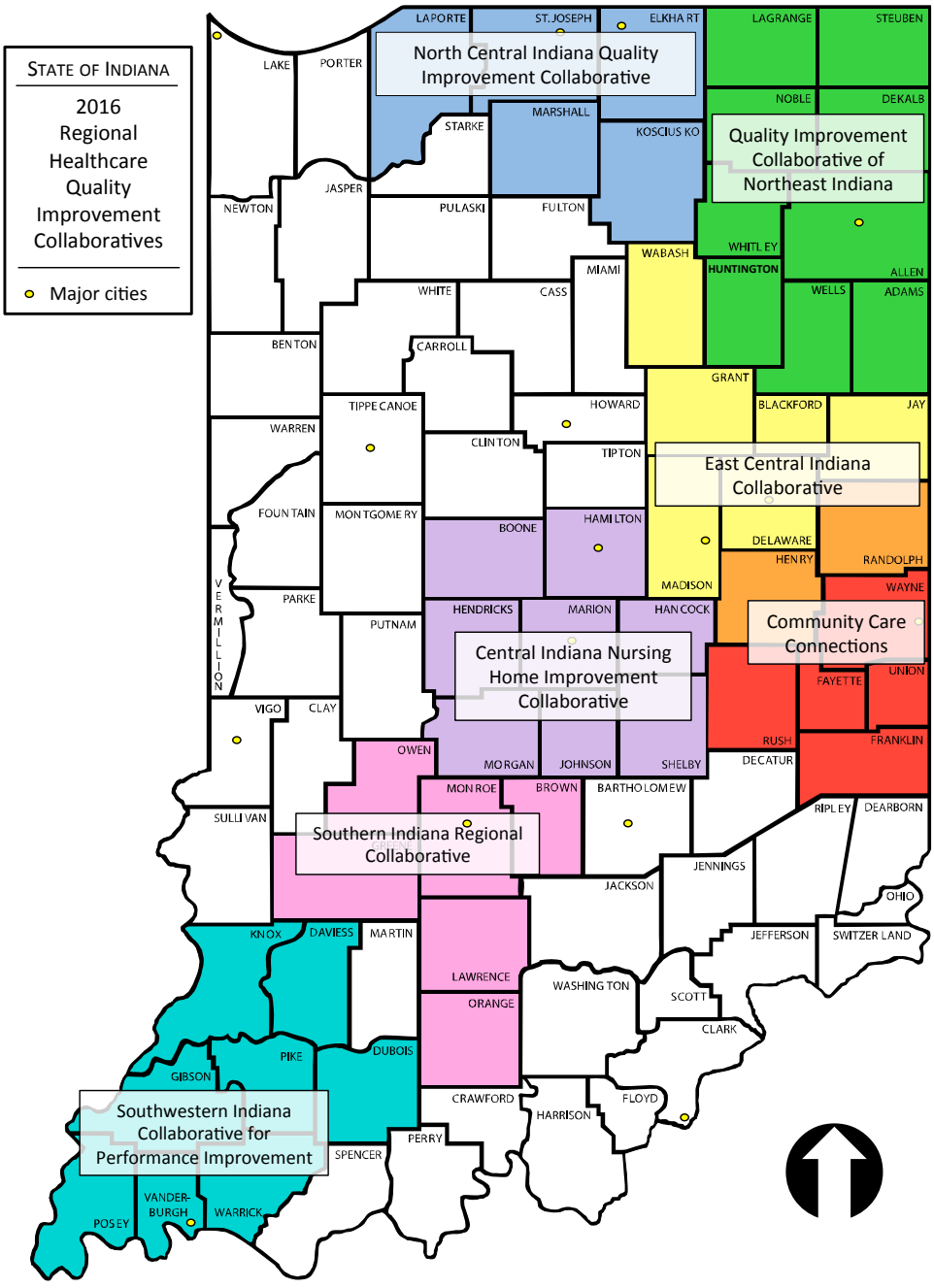
Systemic change lives beyond the timeline of the PIP. Once the planned timeline is complete, the facility should consider how successful interventions should be continued, reinforced, and expanded, if applicable. If the initial intervention(s) were implemented in a specific unit or floor, successful interventions should be expanded to additional areas of the facility or of the corporate enterprise. The facility should also consider which interventions were not successful. If initial interventions did not produce desired results, Collaboratives and facilities should reassess the root cause, strength of the intervention chosen and if the intervention was implemented as planned. Facilities should continue to monitor ongoing practice and continually identify new ways to improve outcomes and quality of care. This process of planning, intervening, measuring, and implementing fully is known as the **Plan | Do | Study | Act** model. Collaboratives may want to continue data reporting and monitoring after the time of focus on any given PIP to ensure the process change is stable and any decreases in quality are quickly identified and addressed.

11

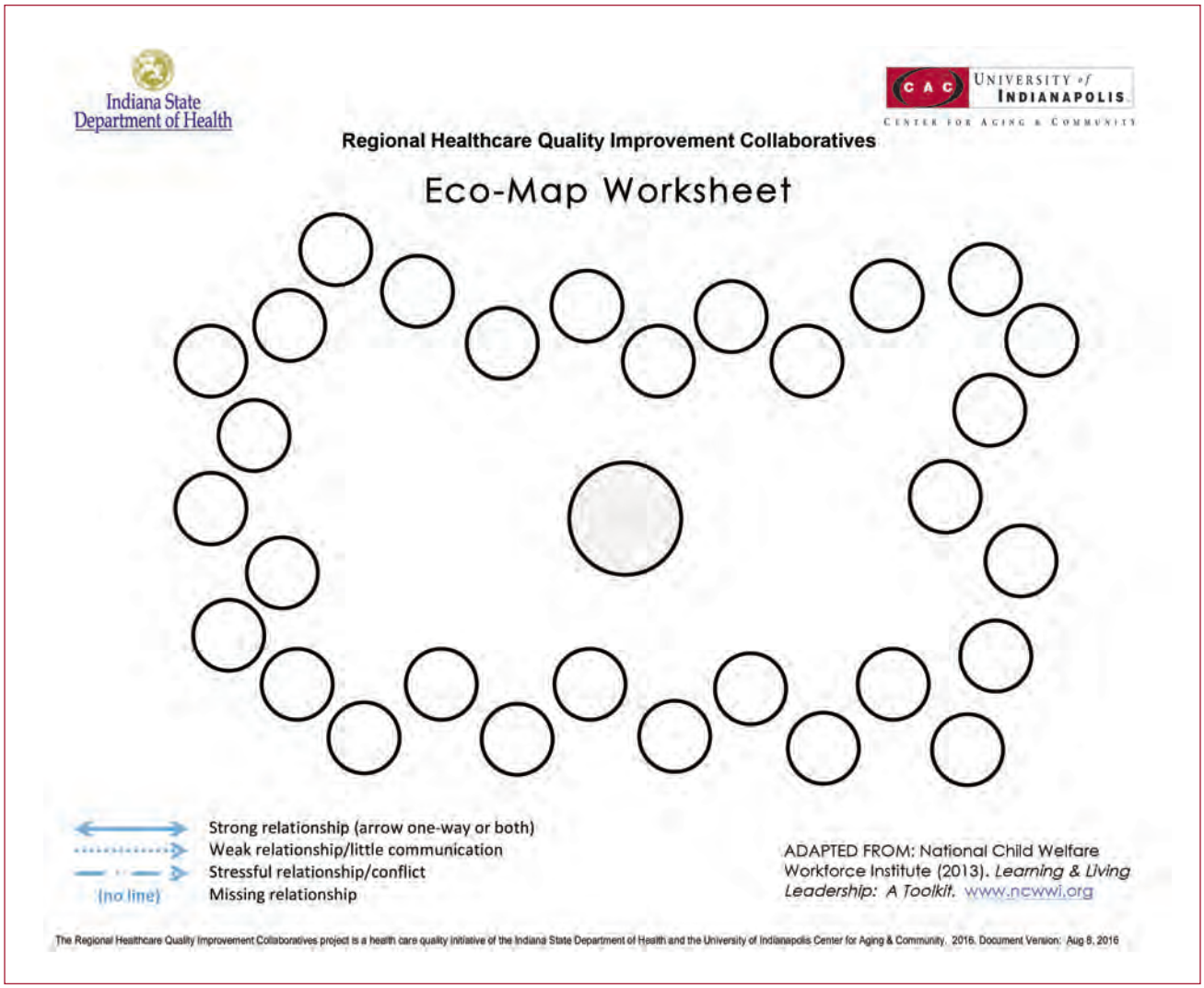
Appendix A – Resource Worksheets & Documents

11. Appendix A – Resource Worksheets & Documents

A1 PARTICIPATING REGIONAL COLLABORATIVE GEOGRAPHIC AREAS



A2 MEMBERSHIP ECO-MAP WORKSHEET



A3 SAMPLE RECRUITMENT FLYER FOR COLLABORATIVE MEMBERS (STATEWIDE)

Indiana Regional Healthcare Quality Improvement Collaboratives

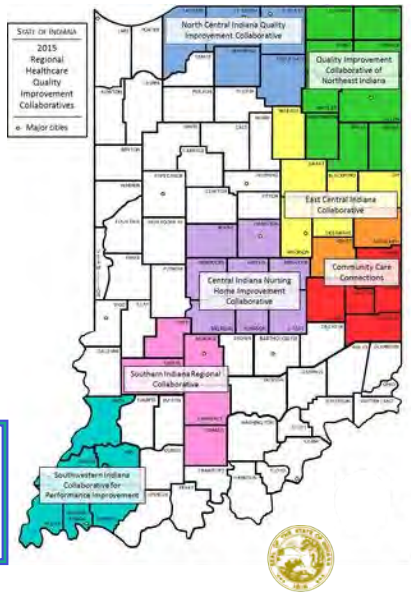
Resources for nursing homes to improve your health care outcomes and get ahead of federal requirements!

Join a **Regional Healthcare Quality Improvement Collaborative** to:

- Receive **training and technical assistance** on Quality Assurance & Performance Improvement (QAPI)
- Access **real-time quality data** for your facility*
- **Be a leader** of Indiana's quality improvement efforts, and get ahead of federal QAPI regulations!

In less than two years, at no cost, your facility could:

- **Improve quality of care** and **health outcomes**
- **Improve** your **CMS star ratings** and **composite scores**
- Gain **In-depth knowledge** of how to utilize QAPI for quality improvement
- **Connect with key stakeholders** and partners regionally and statewide
- **Be proactive**, rather than reactive, to performance improvement in your facility
- **Have a voice** in your regional QAPI projects, and statewide QAPI implementation



For more information on your regional collaborative, contact Lead Agency So-and-So, First Last Name, (XXX) XXX-XXXX or email@leadagency.org

* Collaborative members will also be invited to join Indiana's National Nursing Home Quality Care Collaborative, led by Qsource, to receive quality data for their facility, compared to others in region (facility-specific data released only to each facility).

Sponsored by the Indiana State Department of Health (ISDH), managed by the University of Indianapolis Center for Aging and Community (Uindy CAC).

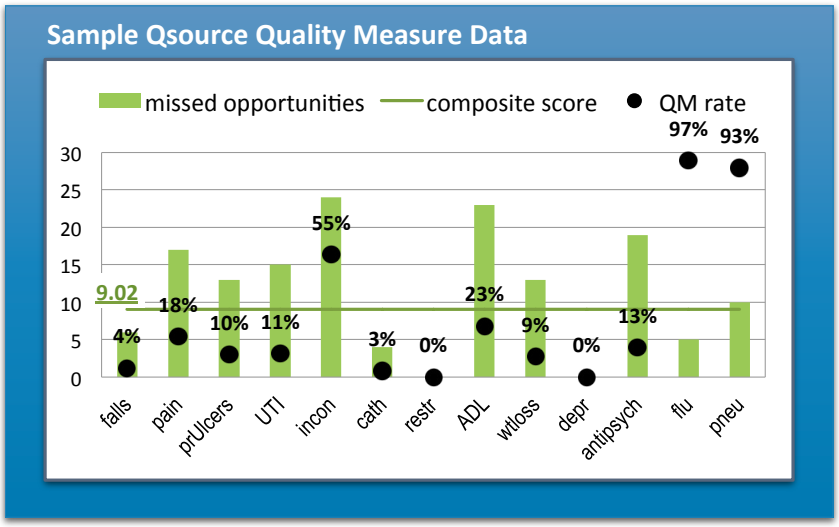
Indiana State Department of Health

CAC University of Indianapolis
Center for Aging & Community

Indiana Regional Healthcare Quality Improvement Collaboratives & National Nursing Home Quality Care Collaboratives (NNHQCC)

Indiana nursing homes are encouraged to join both a **Regional Healthcare Quality Improvement Collaborative** and Indiana's **National Nursing Home Quality Care Collaborative**.

- The same QAPI projects can benefit from both collaboratives' resources, without any more work for your facility!
- Your Quality Measure data, compared to your colleagues, will be provided regularly to assist in identifying areas in need of quality improvement, and to monitor the results of your projects. (Please note that facility-specific data will be anonymous in shared reports – only your facility will see your facility's data identified by name.)
- Your facility will be ready for upcoming federal QAPI regulations, and engage all of your staff in the important work of quality improvement!



Comparing the Collaboratives	Indiana Healthcare Quality Improvement Regional Collaborative	National Nursing Home Quality Care Collaborative (NNHQCC)
Collaborative sponsor	Indiana State Department of Health (ISDH)	Centers for Medicare & Medicaid Services (CMS)
Coordinator	University of Indianapolis Center for Aging & Community (UIndy CAC)	CMS Quality Improvement Organization (QIO), Qsource
Available resources	• ISDH funding for 18 months • Technical assistance from UIndy CAC • Funded regional lead organization to guide collaborative	• 5 years of Qsource support • Multi-state collaborative and communications portal • Unique access to CMS quality data
Activities	• 2 or more quality improvement projects (1 infection prevention, 1 chosen regionally) • Training and technical assistance	• Training and consultation • Evidence-based resources and peer coaching • Virtual meetings and training • Onsite visits from Qsource

For more information, visit http://www.state.in.us/isdh/files/ltcnews1505.pdf

A4 SAMPLE RECRUITMENT FLYER FOR COLLABORATIVE MEMBERS (SOUTHERN INDIANA REGIONAL COLLABORATIVES)

Regional Healthcare Quality Improvement Collaboratives

Southern Indiana Regional Collaborative

Improving quality of care in Indiana nursing homes

Who We Are

The Southern Indiana Regional Collaborative led by Indiana University School of Public Health. Our mission is to bring together nursing facilities and organizations in Monroe, Greene, Owen, Lawrence, Orange and Brown Counties to improve quality and health outcomes in participating nursing facilities.

Goals & Benefits of Joining the Collaborative:

- Bring together key stakeholders in the Southern IN region.
- Improve quality of care and health outcomes for nursing facility residents in our region.
- Improve national nursing home star ratings and composite scores.
- In-depth knowledge of how to utilize the QAPI process for quality improvement.
- Opportunity to connect with and learn from key stakeholders and partners regionally and statewide.

Funding for the Regional Healthcare Quality Improvement Collaboratives grant is provided by the Indiana State Department of Health (ISDH) and the University ofIndianapolis Center for Aging & Community (CAC)

Southern Indiana Regional Collaborative

Indiana University
School of Public Health
Katie Johnson
1025 E. 7th St, Suite 116
Bloomington, IN 47405
Phone: 612-812-1040
E-mail: katfjohn@indiana.edu

A5 SAMPLE COLLABORATIVE KICK-OFF AGENDA

Indiana State Department of Health

CAC University of Indianapolis Center for Aging & Community

Regional Healthcare Quality Improvement Collaboratives

Kickoff

[Local Collaborative Name]

Date, Time, Location

AGENDA

9:00 am	Welcome - Introduce goals of Regional Healthcare Quality Improvement Collaboratives* - Roundtable introductions (roster)*	Lead Agency
9:30 am	Collaboration Activity - Discuss membership/identify any gaps/brainstorm new members - Share EcoMap, if helpful, to discuss strength of relationships	TBD
10:00 am	Break	
10:15 am	QAPI Background - QAPI overview for members* - Brainstorm data/information sources to identify challenges - Review facility/collaborative NNHQCC composite score data	TBD
11:30 am	Lunch Break	
12:15 pm	Identifying QAPI Project Topics - Identify 3-4 potential QAPI Project Topics - Brainstorm assets/resources for each topic and complete “Prioritize Challenges” worksheet	TBD
1:00 pm	Choose 2 QAPI Project Topics (Project 1 HAI-related; Project 2 TBD) - Revisit collaborative membership, relevant to project topics	
2:00 pm	Consider committees: - Data & evaluation - Communication - Other?	TBD

* Included in member orientation packet

The Regional Healthcare Quality Improvement Collaboratives project is a health care quality initiative of the Indiana State Department of Health and the University of Indianapolis Center for Aging & Community. 2016. Document Version: Aug 8, 2016

A6 SAMPLE PARTICIPATION AGREEMENT (CINHIC)

Central Indiana Nursing Home Improvement Collaborative Participation Agreement

Participating Facility: _____
Street Address: _____
City, State, Zip Code: _____

To obtain full value from collaborative participation, each facility is asked to engage a minimum of 4 representatives to support the facility QAPI efforts and be involved in collaborative activities. These members should comprise a variety of individuals and may include: administrative staff, quality improvement/infection prevention staff, nursing staff, nursing assistants, and/or members from the facility's resident & family council.

Representative 1
Name: _____
Role: _____
Email: _____

Representative 2
Name: _____
Role: _____
Email: _____

Representative 3
Name: _____
Role: _____
Email: _____

Representative 4
Name: _____
Role: _____
Email: _____

In addition, we would like for each facility to select one team member to be the Change Agent for the facility. This may be a person identified as one of the four representatives or another individual. The Change Agent will submit facility specific data reports and ensure that the facility is represented in the collaborative activities and that collaborative efforts are shared with staff.

Change Agent
Name: _____
Role: _____
Email: _____

Please indicate with an X if you would prefer blinded or shared facility data with the collaborative. In order to openly share each facility's data, the collaborative must agree as a whole to open-sharing. Otherwise, facilities will be assigned an identifier in collaborative reports that is unique and only known to the facility. Remember, CCC Guiding Principle #1: QAPI focuses on systems and processes, rather than individuals. The emphasis of our efforts will be on identifying system gaps rather than on blaming individuals.

This facility would prefer to keep their data blinded from other collaborative participants. ☐

This facility would prefer to open sharing of data among collaborative participants. ☐

A7 SAMPLE PARTICIPATION AGREEMENT (NCIQIC)

REAL SERVICES

NORTH CENTRAL INDIANA QUALITY IMPROVEMENT COLLABORATIVE

Real Services, Inc.
1151 S. Michigan St.
South Bend, IN 46601
www.realservicesinc.com

Indiana State Department of Health

CAC UNIVERSITY of INDIANAPOLIS
CENTER FOR AGING & COMMUNITY

Regional Collaborative Participation Agreement

Our facility agrees to participate in REAL Services' Area 2 Agency on Aging's Regional Quality Improvement Collaborative. We understand that this collaborative includes support by facility leadership in the following areas:

- Agree to remain active throughout the collaborative agreement (2015/2016)
- Collect, submit and share our process data requested
- Participate in educational sessions, collaborative sessions, conference calls and webinars
- Share results, best practices and lessons learned.

PLEASE PRINT

Facility Name: _____

Address: _____

City/State/Zip: _____

Phone: (_____) _____ - _____

FAX: (_____) _____ - _____

Email: _____

_____ _____
Facility Authorized Agent Date

_____ _____
REAL Services, Inc. Authorized Agent Date

A8 SOUTHWESTERN INDIANA COLLABORATIVE FOR PERFORMANCE IMPROVEMENT ATTENDANCE POLICY

Attendance guidelines for Southwestern Indiana Collaborative for Performance Improvement were reviewed at the 12/10/2015 meeting and revised as follows:

If a SNF misses 3 consecutive meetings and becomes 60 days delinquent in data submission during a Project's intervention phase, they will be considered inactive. If a Project is not in intervention phase a SNF will be considered inactive after missing 3 consecutive meetings. Active SNF participants receive regular emails and reminders regarding Collaborative meetings, deadlines, and other pertinent information. They also are listed in the Collaborative Directory.

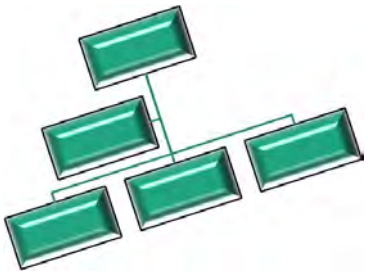
A SNF that has become inactive can become active again by renewed meeting and intervention participation. Attendance is tracked by facility, not by individual. Meeting sign-in sheets are to be used to establish and verify facility attendance.

Indiana Regional Healthcare Quality Improvement Collaboratives

TA TIPS: Governance & Communication

The way you organize your collaborative may have a considerable impact on how well it functions! Consider these Governance tips:

- ✓ **SHARE AUTHORITY**: A leadership team, or Steering Committee, can help your collaborative plan and execute activities in a way that takes all perspectives into account. This is especially important when you have different groups in your collaborative, which are not represented in the Lead Agency (nursing homes, physicians, etc.).
- ✓ **LEVERAGE COMMITTEE WORK:** Establish committees to focus on topics that require a significant amount of work and could benefit from a continual focus from several collaborative members.
  - ✓ *Suggested committees* – Data (Should include people who understand the "business" as well as the data), Communications (Make sure all major stakeholder groups are represented, to communicate effectively to all), Sustainability (Consider involving long-term partners or funders)
  - ✓ *Committees can be temporary!* A strong candidate for a temporary committee for Regional Collaboratives would be a project-specific steering committee of members who have expertise or interest in the project area.
  - ✓ *Become part of your region's routine* – Set regular meetings and communications to become part of members' routines. Some of your communications should be outside of your collaborative, to share your work!



- ✓ **DELEGATE EFFECTIVELY:** Follow these three steps to make sure your task is completed!
  1. Prepare beforehand – master list of all tasks, assigned to lead agency, committees or members
  2. Clearly define the task to be completed – be specific about end product
  3. Mutually agree on a timeline and due date, with checkpoints (if timeline is long)

Consider having a **change agent** (Champion, Liaison, etc.) in each member facility to:

- ✓ Reinforce benefits to colleagues
- ✓ Escalate concerns to leadership
- ✓ Encourage project participation

Remember to support, communicate with and appreciate your change agents!

Indiana State Department of Health

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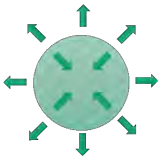
Communication Tips

Below are some tips on how to communicate effectively. *Remember,* the need for communications never stops, which makes Communication a great focus for a committee to keep momentum throughout!



Don't forget to communicate about your collaborative both **INTERNALLY** (to all collaborative members, and their facilities) as well as **EXTERNALLY** (to families, community leaders, potential funders, partner agencies and healthcare organizations, etc.).

Need to know how to effectively communicate with a person or group? **ASK!** Ask your collaborative members for their preferred communication method.

Your Communications Committee should develop a **COMMUNICATION PLAN** identifying all Stakeholders, Messages and Communication Methods – share with collaborative leadership regularly.

- ✓ When identifying *Stakeholders*, don't forget those impacted by the project – i.e., staff, patients, patients' families, etc.
- ✓ Add a column to your plan to *track impact* of each communication

Try one of these tips to **GET PEOPLE TALKING** at your next meeting:

- ✓ Ask for a raise of hands for feedback, or do a quick survey
- ✓ Ask for feelings and opinions, share your feelings, or reflect on what members might be feeling
- ✓ Ask for examples or for clarification

And, remember your tools to engage your collaborative with small group discussions, reporting out and nominal voting.

Stock up on **FLIP CHARTS, POST-IT NOTES and MARKERS!**

Remember to document successes and lessons learned in your program reports, and use Haiku online to collaborate with others around the state or ask bulletin board questions!

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CAC University of Indianapolis
Center for Aging & Community

A10 SAMPLE REGIONAL COLLABORATIVE WORK PLAN

Quarter Major Objectives	Key Tasks	Lead Person	Jan 2015	Feb 2015	Mar 2015	Apr 2015	May 2015	Jun 2015	Jul 2015	Aug 2015	Sep 2015	Oct 2015	Nov 2015	Dec 2015	Jan 2016	Feb 2016	Mar 2016	Apr 2016	May 2016	Jun 2016	Jul 2016
I. Convene Collaborative	Recruit members		x	x	x																
	Determine meeting schedule			x																	
	Establish collaborative communication and meeting plans			x	x																
II. Training	Attend January Kick-Off meeting and training		x																		
	Hold Initial meeting and training for collaborative			x	x																
III. Determine focus of QAPI projects	Assess existing needs assessment information			x	x																
	Design needs assessment			x	x																
	Analyze needs assessment				x																
IV. Data Collection, Analysis and Evaluation	Submit Financial and Activity Reports		x	x	x																
	Assess available data sources for QAPI project																				
I. Ongoing Collaborative Management	Recruit additional members					x	x	x													
	Ongoing management, meetings and communications					x	x	x													
II. Training	Work with University of Indianapolis to establish Technical Assistance needs					x	x	x													
III. Determine focus of QAPI projects	Analyze needs assessment					x															
	Determine focus of HAI QAPI Project						X														
	Begin HAI QAPI Project						x	x													
IV. Data Collection, Analysis and Evaluation	Submit Financial and Activity Reports					x	x	x													
	Develop HAI Project Evaluation Plan					x	x	x													
I. Ongoing Collaborative Management	Recruit additional members								x	x	X										
	Ongoing management, meetings and communications								X	x	x										
II. Training	Work with University of Indianapolis to establish Technical Assistance needs								x	x	x										
III. HAI QAPI Project									x	x	x										
IV. Data Collection, Analysis and Evaluation	Submit Financial and Activity Reports								x	x	x										
	Implement Evaluation Plan								x	x	x										
I. Ongoing Collaborative Management	Recruit additional members											x	x	x							
	Ongoing management, meetings and communications											x	x	x							
II. Training	Work with University of Indianapolis to establish Technical Assistance needs											x	x	x							
	Training as needed for Project #2												x	x							
III. QAPI Projects	Finish HAI QAPI Project											x									
	Begin QAPI Project #2												x	x							
IV. Data Collection, Analysis and Evaluation	Submit Financial and Activity Reports											x	x	x							
	Submit final report of HAI QAPI project												x	x							
	Develop Evaluation Plan for QAPI Project #2													x							
I. Ongoing Collaborative Management	Recruit additional members as needed for Project #2														x	x	X				
	Ongoing management, meetings and communications														x	x	x				
II. Training	Work with University of Indianapolis to establish Technical Assistance needs														x	x	x				
III. QAPI Project #2	Develop QAPI project plan														x						
	Implement QAPI project plan															x	x				
IV. Data Collection, Analysis and Evaluation	Submit Financial and Activity Reports														x	x	x				
	Develop Evaluation Plan														x						
	Implement Evaluation Plan															x	X				
I. Ongoing Collaborative Management	Ongoing management, meetings and communications																	x	x	x	
II. Training	Work with University of Indianapolis to establish Technical Assistance needs																	x	x	x	
III. QAPI Project #2	Implement Project Plan																	x	x	x	
IV. Data Collection, Analysis and Evaluation	Submit Financial and Activity Reports																	x	x	x	
	Implement Evaluation Plan																	x	x	x	
	Final Project Evaluation/Data Analysis																			x	x
Final Report																					x

A11 DATA PROBLEM ACTIVITY WORKSHEET

Indiana State Department of Health

CAC UNIVERSITY of INDIANAPOLIS. CENTER FOR AGING & COMMUNITY

Regional Healthcare Quality Improvement Collaboratives

Collaborative Activity Worksheet

Before the next collaborative meeting, review data **for your facility** related to topic challenges, to identify possible Performance Improvement Project topics. Review as many data AND INFORMATION sources as you can identify, and bring to the next meeting for these activities.

Identify Topic-Related Data Sources & Problems

Data Source-Item/ Information Source	Findings	Problem/PIP Topic
e.g., MDS-UTI rate	*UTI rates above state and national averages*	*Reduce UTI rate*
Click here to enter text.	Click here to enter text.	Click here to enter text.
Click here to enter text.	Click here to enter text.	Click here to enter text.
Click here to enter text.	Click here to enter text.	Click here to enter text.
Click here to enter text.	Click here to enter text.	Click here to enter text.
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Click here to enter text.	Click here to enter text.	Click here to enter text.
Click here to enter text.	Click here to enter text.	Click here to enter text.
Click here to enter text.	Click here to enter text.	Click here to enter text.
Click here to enter text.	Click here to enter text.	Click here to enter text.

NEXT STEPS: Review your facility's data on chosen project topic to identify interventions.

Indiana State Department of Health

Regional Healthcare Quality Improvement Collaboratives

Collaborative Activity Worksheet

Before the next collaborative meeting, review data **for your facility** related to the Performance Improvement Project (PIP) topic chosen by your collaborative. Explore the root cause of the challenge **at your facility** and identify potential interventions (with evaluation data sources).

TIP: To find root cause(s), consider using a root cause analysis tool (e.g., The 5 Why's, Fishbone Diagram, Murphy's Analysis) or an A3 Structured Problem Solving sheet.

Identify Data Sources & Interventions

Data Source---Item/ Information Source	Findings	Intervention	Data Source for Evaluation/Tracking
e.g. Floor nurse focus group	Catheter care practice is not consistent	Catheter care education & monitoring	e.g. Reduce UTI (goal TBD), Practice audits (goal TBD)
Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.
Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.
Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.
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Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.
Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.

NEXT STEPS: Complete Data Collection Plan (Who, How, When, What will be collected/monitored)

Indiana State Department of Health

Regional Healthcare | CAC University of Indianapolis. Center for Aging & Community

Collaborative Facilitation Guide:
Data-Informed Project Selection & Intervention Identification

Typical trigger for use of this guide:

Members have attended kick-off meeting and will attend this collaborative meeting after having reviewed data **for their facility** regarding topic challenges.

Activity 1: Identify Data Sources

BEFORE MEETING: Send worksheet in advance to alert participants to bring data (or information about data source, at a minimum).

AT MEETING:

- Break participants into small groups at tables to identify the data sources they reviewed for challenges – for example, MDS data, hand washing observations, self-assessment results, etc.
- Have each table discuss data they reviewed, and write their data sources on a flip chart sheet or wipe board (or on post-its or a piece of paper, if needed).
- Have each table report out to the larger group, while facilitator lists each data source mentioned on flipchart (if too repetitive, shift to reporting out new data sources or items).

(**NOTE:** Make sure to note the data source and what was reviewed – i.e., MDS data on UTI's.)

TIP
To break into random groups, have people count off in the number 1, 2, 3, etc. for 3

Activity 2: Prioritize Challenges/Problems

AT MEETING:

- The same small groups identify the challenges/problems they saw in their data (write on postit's and place on your small group flip chart – count repeats) then report out to the larger group.
- Have EACH FACILITY (ONLY 1 POST-IT PER FACILITY) post their challenge(s) on the flip chart in front of the room.

END RESULT: Number of reports of each challenge to identify which challenges are most common across facilities. Facilitator should count number of instances of each challenge to identify "front runners" for project topics.

Activity 3: Choose a Problem

AT MEETING:

- List the "front-runners" from Activity 2 on a whiteboard or flip chart in front of the room.
- Have each facility sit together to decide how to cast their votes, then cast them with stickers/markers.

(Recommendation: Choose 3-5 front-runners where vote numbers drop; give each facility two votes.)

END RESULT: Collaborative Performance Improvement Project topic

HOMEWORK: Send home worksheet for facility to identify intervention(s) (and data source) related to chosen collaborative Performance Improvement topic/Problem.

Preparation for Activity 4

We recommend that participants should return to facilities before conducting Activity 4 at a future meeting. Their next step is to look at data for their facility related to your chosen PIP topic challenge, and to identify possible interventions, then talk about how they would track the impact of each intervention. A root cause tool or A3 problem solving sheet could help them identify causes of the problem and possible interventions/strategies to improve. We recommend that you include on your meeting agenda (for the meeting where you identified your challenge/PIP topic) a discussion of how to use these tools at their facility. Consider reviewing the following tools:

- The 5 Why's Activity (QAPI Fundamentals slides, Evelyn Catt, slide 31 – available on Haiku OR http://www.cms.gov/Medicare/Provider-Enrollment-andCertification/QAPI/downloads/FiveWhys.pdf)
- Murphy's Analysis Activity (QAPI Fundamentals slides, Evelyn Catt, slides 29-30)
- Fishbone Analysis Activity (http://www.cms.gov/Medicare/Provider-Enrollment-andCertification/QAPI/downloads/FishboneRevised.pdf)

The A3 Problem Solving sheet could be reviewed to point out that interventions could be identified while conducting an A3 Problem Solving sheet (available on Haiku). Root cause is addressed in "Step 6. Gap Analysis," and interventions would be identified in "Step 7. Countermeasures," where you identify solutions and countermeasures. A more comprehensive root cause tool is also available on Haiku, the "Root Cause Analysis JCO" from the Joint Commission.

Activity 4: Choose Your Fix/Intervention

BEFORE MEETING: Send worksheet in advance to alert participants to bring interventions (identified through facility data) for the selected HAI problem.

AT MEETING:

- In large group, have each facility "report out" the intervention(s) and associated data source(s) identified by their facility related to the chosen topic problem. (Facilitator should capture on a flipchart or whiteboard – create table with two columns, "Intervention" and "Data Source.") ➲ Break into small groups by intervention (e.g., hand washing, readmission procedures, etc.).
- Have small groups discuss how their facility might implement the intervention and brainstorm about how best to execute **and track** the intervention.
- Have each small group report out the main points of their discussion about their intervention.
- Have each facility report out (to the large group) which intervention they want to implement in their facility. (Facilitator tracks the number of facilities selecting each intervention on the flipchart or whiteboard, while another facilitator takes notes regarding each facility's choice of intervention or gathering on worksheets or post-its, etc.)

NOTE: We'd like choice of intervention to be driven by data, so facilities should be able to self-select their intervention, unless a collaborative has far too many varied interventions.

END RESULT: Identified topic intervention(s) to be implemented to impact the selected HAI problem, as well as which facility will implement each intervention and what data source(s) will be used to track the impact of the intervention(s).

A14 QAPI BLANK CHARTER

Regional Healthcare Quality Improvement Collaboratives
Regional Collaborative Name
Project Charter QAPI Project #1

QAPI PROJECT CHARTER

This document is meant to provide a format for creating a QAPI project charter for a collaborative. Completion of this document is triggered and supported by broad data analysis to identify the problem the collaborative wishes to address as well as further root cause and data analysis to determine interventions. Development of the QAPI culture, a needs assessment and identification of gaps and opportunities should be completed prior to starting this document.

PROJECT OVERVIEW

1. Name of Project:

Ex. Reduction in rate of resident falls.

Click here to enter text.

2. Problem to be solved (Problem Statement)

Ex. Rates of falls exceed the state average, which leads to poor health outcomes for residents and has a negative impact on CMS Quality Measures.

Click here to enter text.

3. Background leading up to the need for this project

Ex. Falls are a significant issue leading to injury, poor health outcomes and poor quality of life for residents. Staff feel pressure to do "something" when a resident falls.

[Tip: Reference specific background documents, as needed.] Click

here to enter text.

4. The goal for this project (Aim Statement)

Ex. Reduce rates of falls to the state average in four months.

Click here to enter text.

5. Project Scope

Ex. This project will run 6/1/15 – 9/30/15 and includes residents in the units or floors identified by each facility.

Click here to enter text.

PROJECT METRICS

1. Primary Metric

Defines the project goal, measures baseline and improvement at end of project. Ex. Rate of resident falls on the MDS.

Click here to enter text.

2. Secondary Metric (Optional)

Captures, validates and tracks welcome side effects of the project.

Click here to enter text.

3. Consequential Metric (Optional)

Captures, validates and tracks unwelcome side effects of the project Click here to enter text.

4. Financial Metric (Optional)

Links progress to financial outcomes.

Click here to enter text.

PROJECT APPROACH

1. Project Time Table

Timeline of project activities

Project Phase	Start Date	End Date
Initiation: Project charter developed and approved	Click here to enter a date.	Click here to enter a date.
Planning: Specific tasks and processes to achieve goals defined	Click here to enter a date.	Click here to enter a date.
Implementation: Project carried out	Click here to enter a date.	Click here to enter a date.
Monitoring: Project progress observed and results documents	Click here to enter a date.	Click here to enter a date.
Closing: Project brought to a close and summary report written	Click here to enter a date.	Click here to enter a date.

2. Project Team and Responsibilities

Those involved and their accountability

Title	Role	Person Assigned
Project Sponsor	Provide overall direction and oversee financing for the project	Click here to enter text.
Project Director	Coordinated, organize and direct all activities of the project team	Click here to enter text.
Project Manager	Manage day-to-day project operations, including collecting and displaying data from the project	Click here to enter text.
Team Members	List roles on project committees	
	Click here to enter text.	Click here to enter text.
	Click here to enter text.	Click here to enter text.
	Click here to enter text.	Click here to enter text.

3. Material Resources Required for the Project

Ex. Equipment, software, supplies, etc.

Click here to enter text.

4. Barriers

What could get in the way of success?	What can we do about this?
Example: Staff may not be supportive of the intervention chosen to address the problem	*Example: Be sure to include staff as much as possible in the selection of the intervention, education staff on the best practices for addressing falls.*
Click here to enter text.	Click here to enter text.
Click here to enter text.	Click here to enter text.
Click here to enter text.	Click here to enter text.

INTERVENTIONS

1. Selected Interventions

Intervention	Facilities Implementing	Intervention Metrics (Process Metrics)
Ex. Use of position alarms will be discontinued during sleeping hours of 11pm-6am	*Facility A, B, D*	*Number of alarms in use at baseline, number of alarms turned off during intervention.*
Ex. Track and decrease where possible use of medications that increase likelihood of falls	*Facility A, B, D*	*Listing of medications that increase likelihood of falls and rates of use.*
Ex. Improve hand washing practices to decrease spread of UTI	*Facility A, B, D*	*iScrub observations from each facility for baseline and monthly throughout.*
Click here to enter text.	Click here to enter text.	Click here to enter text.
Click here to enter text.	Click here to enter text.	Click here to enter text.
Click here to enter text.	Click here to enter text.	Click here to enter text.
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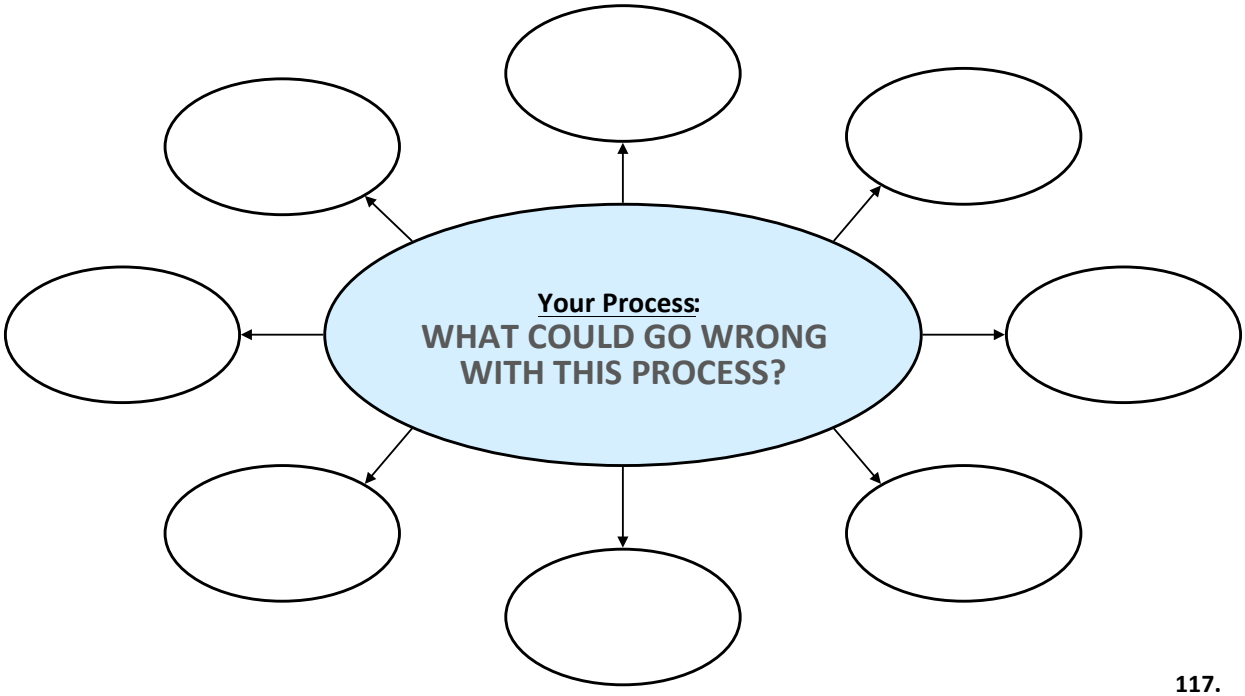
A15 A3 PROJECT CHARTER TOOL

DEFINE	1. PROBLEM STATEMENT	MEASURE	4. INITIAL STATE METRICS	IMPROVE	7. COUNTERMEASURES
• Describe the background of the current problem or opportunity. • What business problem are we trying to solve? • Why is this issue important now?		*How will we know a change is an Improvement? • Map and measure the current process performance. • What metrics are used to evaluate this process? (initial state)		*What changes can we make that will result in Improvement? • Develop proposed solutions and counter measures. • Conduct rapid experiments to test/validate solutions. • Create a future state value stream map for the new process. • Create standard work and develop policies and procedures to support the new process with clearly defined accountability.	
DEFINE	**2. AIM STATEMENT**	**MEASURE**	**5. TARGET STATE METRICS**	**IMPROVE**	**8. ACTION PLAN**
*What are we trying to accomplish? • State your goals in measurable terms. • What are the boundaries for this project? ○ Included/excluded from scope: ○ Process start point & end point:		• What are the improvement goals for each metric? (target state) • How are these metrics aligned with the organization's strategic goals? • How will these metrics be monitored?		• Develop an action plan to fully implement the solutions, including details of who, what, and when. ○ Identify "Just-Do Its" to be implemented immediately. ○ Implement Lean 5-S and visual controls, as needed. ○ Create and implement a communication plan.	
DEFINE	**3. CURRENT CONDITIONS**	**ANALYZE**	**6. GAP ANALYSIS**	**CONTROL**	**9. FOLLOW-UP**
• Describe the current conditions of this process using visual diagrams & charts. • Determine the customer requirements for this process. • Identify the measurable Critical to Quality (CTQ) elements of this process that are essential for customer satisfaction.		• Identify waste within the current process: ○ Gemba walk, waste worksheet, value added/non-value added analysis • Analyze main issues, quantify their impact: ○ Pareto charts, control charts, statistical analysis, capability analysis • Identify the root cause of issues and gaps: ○ Fishbone diagram, Five Whys, Root Cause Analysis, Failure Modes Analysis (FMEA)		• Confirm that actual results match the expected and desired results. • Identify any issues or barriers that still need to be addressed. • Create a plan to monitor, sustain, and spread the new process. • Summarize and share the insights gained from this project.	

DEFINE	1. PROBLEM STATEMENT	MEASURE	4. INITIAL STATE METRICS	IMPROVE	7. COUNTERMEASURES
DEFINE	**2. AIM STATEMENT**	**MEASURE**	**5. TARGET STATE METRICS**	**IMPROVE**	**8. ACTION PLAN**
DEFINE	**3. CURRENT CONDITION**	**ANALYZE**	**6. GAP ANALYSIS**	**CONTROL**	**9. FOLLOW-UP**

Murphy's Analysis Exercise

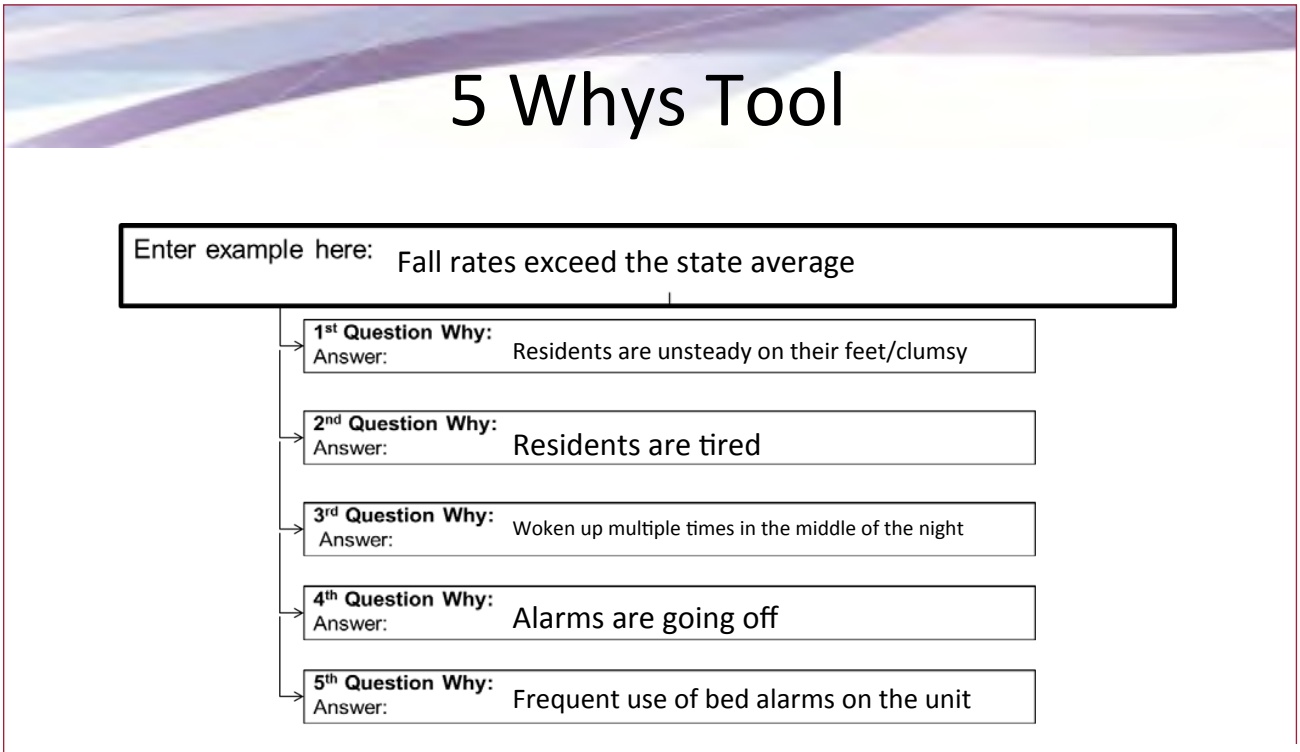


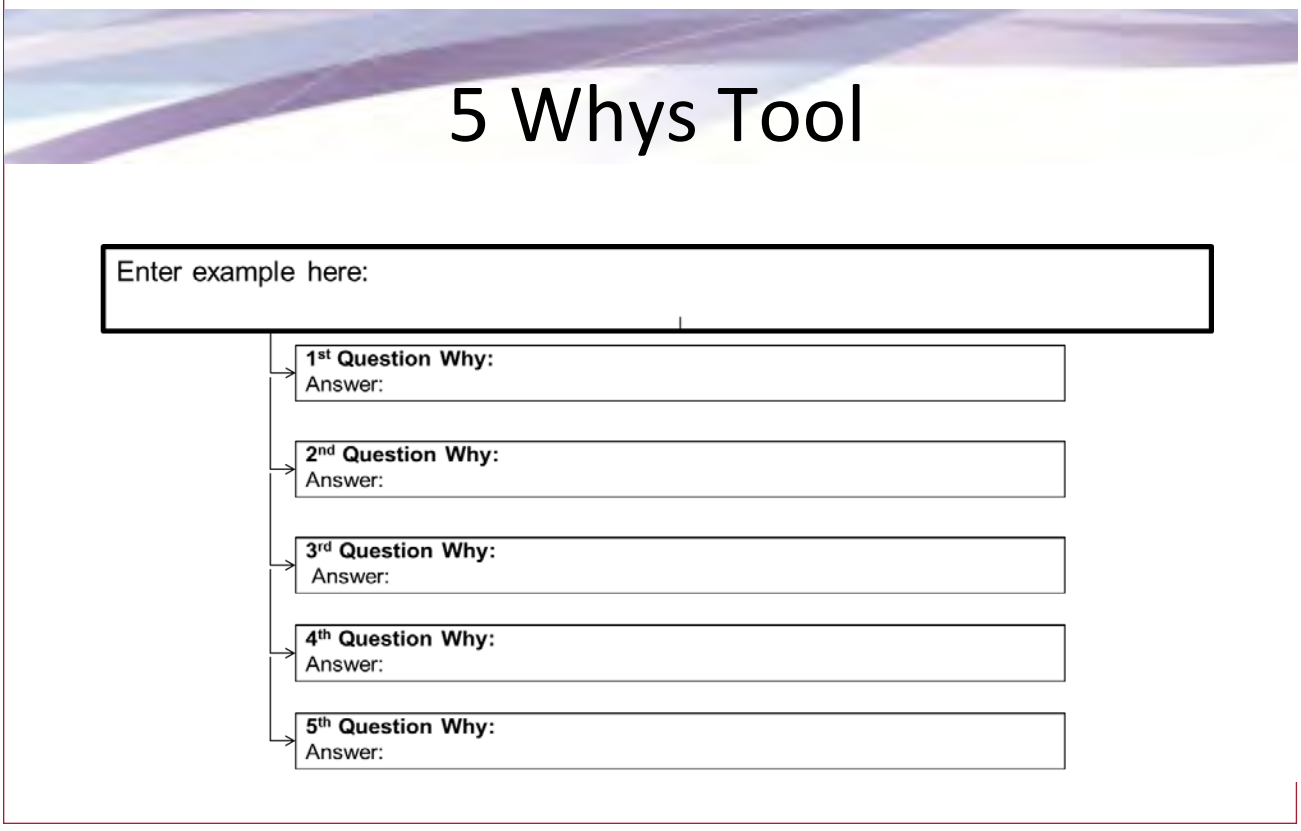
117.

Evelyn A. Catt, 2015

Note: Additional circles may be added, as needed.

A17 CMS QAPI 5 Whys





A18 POST PIP PRESS RELEASE

Community Care Connections

Reid Hospital in Richmond, Indiana stepped up as the lead organization for Community Care Connections (CCC). The group, which was built from a previously existing coalition, determined that their first Process Improvement Project (PIP) would be to reduce hospitalizations related to healthcare acquired infections (HAI) by 20%. The intervention used by the collaborative was the INTERACT toolkit for long-term care facilities to help family, staff (clinical and non-clinical), and residents identify changes in the resident that might indicate an infection. Each reporting facility implemented the use of the Stop and Watch form, which offers 12 indicators about the resident that might be cause for concern. Some of these indicators include "seems different than usual," "new or worsening pain," "tired, weak, confused, or weary," and "agitated more than usual."

The CCC facilities all implemented the use of pocket cards so that staff members had a handy reminder of the indicators. Non-clinical staff, families, and residents were educated on the use of the form as well, and were encouraged to ask a nurse for assistance if they noticed changes related to one of the indicators. Posters around the facility reminded everyone involved to be on the watch for changes indicated by the Stop and Watch form. In addition, medical directors were sent a letter explaining the PIP for their buy-in.

"Throughout the implementation of the first PIP, we saw that staff members – clinical and non-clinical – and family members felt empowered by the ability to complete a Stop and Watch form where they saw a cause for concern, said Billie Kester of Reid Hospital. "Even the physical and occupational therapists said they felt more a part of the patients' care plan."

A sense of empowerment was not the only victory CCC realized in this effort. Initial reporting showed a 38% reduction in HAI-related hospitalizations – nearly double the collaborative's goal. That reduction translated into a Medicare spend savings of more than $240,000.

Kester's note to other regional groups interested in pursuing a similar effort is to "Get baseline data. Track what you're wanting to improve and make sure each facility is tracking the same measure in the same way."

Community Care Connections plans to address staffing stability at the Certified Nurse Assistant and the Licensed Practice Nurse levels as their second PIP.

12

Appendix B – Resource Links

12. Appendix B – Resource Links

Regional Healthcare Quality Improvement Collaborative Toolkit Hyperlinks	
Advancing Excellence in America's Nursing Homes	https://nhqualitycampaign.org/
CMS 5 Why's	https://www.cms.gov/medicare/provider-enrollment-and-certification/qapi/downloads/FiveWhys.pdf
CMS Action Steps to QAPI	https://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/QAPI/downloads/QAPIAtaGlance.pdf
CMS Developing a Facility QAPI Plan	https://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/QAPI/downloads/QAPIPlan.pdf
CMS Guidance for Performing Root Cause Analysis (RCA) with Performance Improvement Projects (PIPs)	https://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/QAPI/downloads/GuidanceforRCA.pdf
CMS How to Use the Fishbone Tool for Root Cause Analysis	https://www.cms.gov/medicare/provider-enrollment-and-certification/qapi/downloads/fishbonerevised.pdf
CMS QAPI at a Glance	https://www.cms.gov/medicare/provider-enrollment-and-certification/qapi/downloads/qapiataglance.pdf
CMS QAPI Guide for Developing Guiding Principles	https://www.cms.gov/medicare/provider-enrollment-and-certification/qapi/downloads/qapipurpose.pdf
CMS QAPI Five Essential Elements	https://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/QAPI/downloads/qapifiveelements.pdf
CMS QAPI Self-Assessment	https://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/QAPI/downloads/QAPISelfAssessment.pdf
CMS Quality Assurance and Performance Improvement Model	https://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/QAPI/nhqapi.html
CMS Worksheet to Help Facilities Develop a Charter	https://www.cms.gov/medicare/provider-enrollment-and-certification/qapi/downloads/pipcharterwkshtdebedits.pdf
Composite Scores for Facilities	http://www.medicare.gov/nursinghomecompare/search.html

Regional Healthcare Quality Improvement Collaborative Toolkit Hyperlinks	
Fishbone Diagram	https://www.cms.gov/medicare/provider-enrollment-and-certification/qapi/downloads/FishboneRevised.pdf
Kotter Resources on Change	http://www.kotterinternational.com/
Nursing Home Compare	www.medicare.gov/nursinghomecompare/search.html
Nursing Home QAPI – What's in it for You?	https://www.youtube.com/watch?v=XjkNNEjO_Ec
Top 10 Ideas to Involve All Staff in Advancing Excellence	https://www.nhqualitycampaign.org/files/topTenInvolveAE.pdf
Advancing Excellence in America's Nursing Homes	https://nhqualitycampaign.org/

This toolkit created under the Indiana Regional Healthcare Quality Improvement Collaboratives project—a health care quality initiative of the Indiana State Department of Health and the University of Indianapolis Center for Aging & Community. 2016