REGIONAL COLLABORATIVES FOR QUALITY IMPROVEMENT FINAL REPORT

September 2014 – August 2016

Provided for:
Indiana State Department of Health

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CAC UNIVERSITY of INDIANAPOLIS
CENTER FOR AGING & COMMUNITY

University of Indianapolis Center for Aging & Community

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The University of Indianapolis Center for Aging & Community collaborates, educates and conducts research to enhance the quality of life for all people as they age.

Vision
The University of Indianapolis Center for Aging & Community is a catalyst for change that leads to a world in which all people age with dignity and optimal health.

About Us
The University of Indianapolis Center for Aging & Community (CAC) is one of Indiana's leading centers for aging studies, utilizing an interdisciplinary approach to developing partnerships between higher education, business organizations and the community. The Center prides itself on being a champion for advancing the new reality of older adults as corporate, community, and family assets.

CAC offers outstanding education in Aging Studies. In addition, we provide research and consultation services to civic, philanthropic, business and community organizations who are working to serve older adults. By working with organizations and individuals who work with the aging population, CAC seeks to improve the quality of life for older adults across Indiana and beyond.

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REPORT HIGHLIGHTS

The following are the key successes of the Regional Collaboratives for Quality Improvement project and highlights of the following report. Each is discussed in further detail in following sections.

- Seven Regional Collaboratives were formed that brought together 20 or more nursing facilities and community partners to complete two quality improvement projects.
- Collaboratives learned the CMS Quality Assurance Performance Improvement process and taught it to their members, completing two Process Improvement Projects as a group.
- Projects addressed reducing antipsychotic medication use, improving CNA staffing, reducing falls, reducing healthcare associated infection (HAI) related hospitalizations, reducing occurrences of pneumonia, and reducing urinary tract infections.
- Project outcomes included:
    - **Reducing Antipsychotic Medication Use:** ECIC reduced doses of antipsychotic medications by 43%; SWICPI reduced rates of antipsychotic medication use by 42%.
    - **Improving CNA Staffing:** CCC reduced CNA turnover rate by 17%, saving $42,000; CINHIC reduced CNA turnover rate by 15%; QICNE increased their CNA turnover rate by 5%; and NCIQIC increased their CNA staff by 16%.
    - **Reducing Falls:** SIRC reduced falls by 29% across three facilities.
    - **Reducing HAI-related Hospitalizations:** CCC reduced HAI hospitalizations by 38%.
    - **Reducing Pneumonia:** ECIC reduced pneumonia cases by 16%.
    - **Reducing UTIs:** NCIQIC reduced UTIs by 56.75%; SIRC reduced UTIs by 54%; QICNE reduced UTIs by 46%; SWICPI reduced UTIs by 38%; and CINHIC reduced UTIs by 24%.
    - Per member survey, all but one of those who indicated they did not previously have a QAPI plan, now had a plan completed or in progress. Of those who indicated they did have a QAPI plan, 98% updated their plan during the course of the Collaborative project. All who answered indicated that the Collaborative was helpful in developing their facility QAPI plan.
- At the time of this report $1,438,058 in savings have been identified due to these projects' prevention of anticipated negative health outcomes.
- Technical assistance was provided in the form of monthly phone calls, monthly webinars, three in-person leadership meetings, and attendance at Collaborative meetings. Evaluations indicate that technical assistance received was beneficial and of high quality.
- A toolkit explaining the background, planning, and implementation of the Regional Collaborative process was created for the purpose of sustainability and expansion of the quality improvement efforts by regional groups not in the specific ISDH-supported collaboratives. The toolkit provides specific instructions for Process Improvement Projects as developed and implemented by the Collaboratives.

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PROJECT OVERVIEW

The Regional Healthcare Quality Improvement Collaborative grant aimed to form seven regional collaboratives across the state with the goal of improving quality of care in Indiana nursing facilities. Lead organizations brought together a Collaborative of at least 20 nursing facilities and other stakeholders in their area to engage in the CMS Quality Assurance Performance Improvement (QAPI) process and complete two Process Improvement Projects (PIPs) in the participating nursing facilities. The first of the two QAPI PIPs for all of the Collaboratives focused on healthcare associated infections (HAI). The second focused on an area of need identified by the Collaborative members. The initiative's primary goal was to improve quality of care and health outcomes of residents in participating facilities. The University of Indianapolis Center for Aging & Community provided overall management for the project and technical assistance to Collaboratives to ensure success.

Goals and Objectives

The initiative had two main project goals. These were:

1. Through the Collaboratives, educate Collaborative members about the CMS Quality Assurance Performance Improvement (QAPI) process. As part of this learning experience, each Collaborative will implement two QAPI PIPs with their members, walking through all 12 steps of the process to build a strong foundation for QAPI and increase nursing facility comfort levels with QAPI. QAPI PIPs will address healthcare associated infections (HAI) and another topic of the collaborative's choosing. At the end of the project, Collaborative members should be well situated to continue implementing the QAPI process in their facilities.
2. Decrease incidence of healthcare associated infections and improve other health outcomes as measured by the MDS-LTC and nursing home composite scores as related to the chosen QAPI PIPs.

As a means to achieve these goals, the project has three main objectives. These are:

1. Develop, manage, and sustain Regional QAPI Collaboratives in seven areas across the state.
2. Increase participant knowledge about the QAPI process, best practices, and use in facility functions.
3. Increase facility implementation of QAPI best practices in the area of healthcare associated infections and other areas.

Reporting Period

This report includes activities throughout the entirety of the project, September 2014 - August 2016.

INITIATIVE DESIGN

Project Team

The Regional Healthcare Quality Improvement Collaboratives Project was coordinated by the University of Indianapolis Center for Aging & Community (CAC). CAC Project Team members included:

Ellen Miller, PhD, PT – Executive Director
Ellen Burton, MPH, CHES – Senior Project Director
Lidia Dubicki, MS – Project Coordinator
Kayleigh Allen, MS – Project Coordinator
Amy Magan – Communications Manager
Amy Marack, MPA – Business Manager

Koehler Partners, an Indianapolis-based consulting firm, was engaged for this project to provide support as needed, particularly in areas of collaborative building; data collection, analysis and use; and evaluation. Over the course of the project, the team held over 200 hours of project team meetings.

Advisory Group

The Advisory Group met regularly throughout the life of the project. At each meeting the group was updated on the progress of the project and discussed challenges experienced by the project team. Advisory Board members recommended solutions for challenges and contributed to the advertising, marketing, and general education about the available courses, sharing information and registration opportunities with their constituents. A full list of Advisory Board members can be found in Appendix A.

Regional Collaborative Overview

In collaboration with ISDH, CAC oversaw the development of seven Regional Collaboratives across the state. Each of the Collaboratives included a lead organization, at least 20 nursing facilities, and other state and community organizations. The Regional Collaboratives were managed by a lead organization that is the official grantee and liaison with CAC. The Collaborative leaders learned the CMS QAPI process and taught the methods to their Collaborative members. Each Collaborative developed and implemented two QAPI projects during the 18-month grant period. The CAC Project Team worked with lead organizations to develop Collaborative membership, successfully engage and manage the Collaborative, and learn about and teach the QAPI method as well as develop, implement, and evaluate two QAPI projects. Collaboratives met regularly, utilized existing data to analyze needs of members in their Collaborative, and implemented two QAPI projects. These projects are addressed more fully in the section below.

QAPI Project Overview

During the course of the 18-month grant, each Regional Collaborative designed, implemented and reported on two QAPI Process Improvement Projects (PIPs). This included laying the QAPI foundation through education and culture change in participating organizations, an assessment of available data to identify areas for improvement, asset mapping to determine ability to address identified issues, development of the QAPI project timeline, implementation of the project, and evaluation of process and health outcomes. This evaluation will be further addressed in the Evaluation section below.

Collaborative PIPs addressed two separate topics with the QAPI projects: healthcare associated infection (HAI) and a topic of their choosing based on their data/needs assessment. The first project was HAI-related for all but one Collaborative. This approach allowed Collaboratives to learn not only from CAC and ISDH, but from each other as well. As the Collaboratives had varying familiarity with the QAPI process, limiting the scope of the initial project allowed for more focus on the development of the process and learning from each other. Once the QAPI process became familiar, collaboratives repeated the process with a topic of their choosing. One Collaborative chose to address HAI as their second project after a resources survey and determining that leadership staff who would only be able to participate in project one had expertise in other areas.

Technical Assistance Overview

CAC provided extensive technical assistance for Collaboratives throughout the life of the grant. Topics included collaborative building; stakeholder engagement; needs assessment; the QAPI process; project design and implementation; and data use, analysis, and evaluation. Technical assistance was provided in person, via phone, and via webinars. Senior Project Director Ellen Burton held monthly phone calls with the leadership of each Collaborative and the Project Team hosted monthly webinars on challenges identified during monthly phone calls. Project Team members attended Collaborative meetings at least quarterly and as requested. Three times over the course of the project, Collaborative leaders came to Indianapolis for an all-day meeting to discuss challenges and successes of implementing the project and to learn from each other, CAC, and ISDH about the next steps of the project. CAC worked with Collaboratives throughout the duration of the grant to identify and address technical assistance needs.

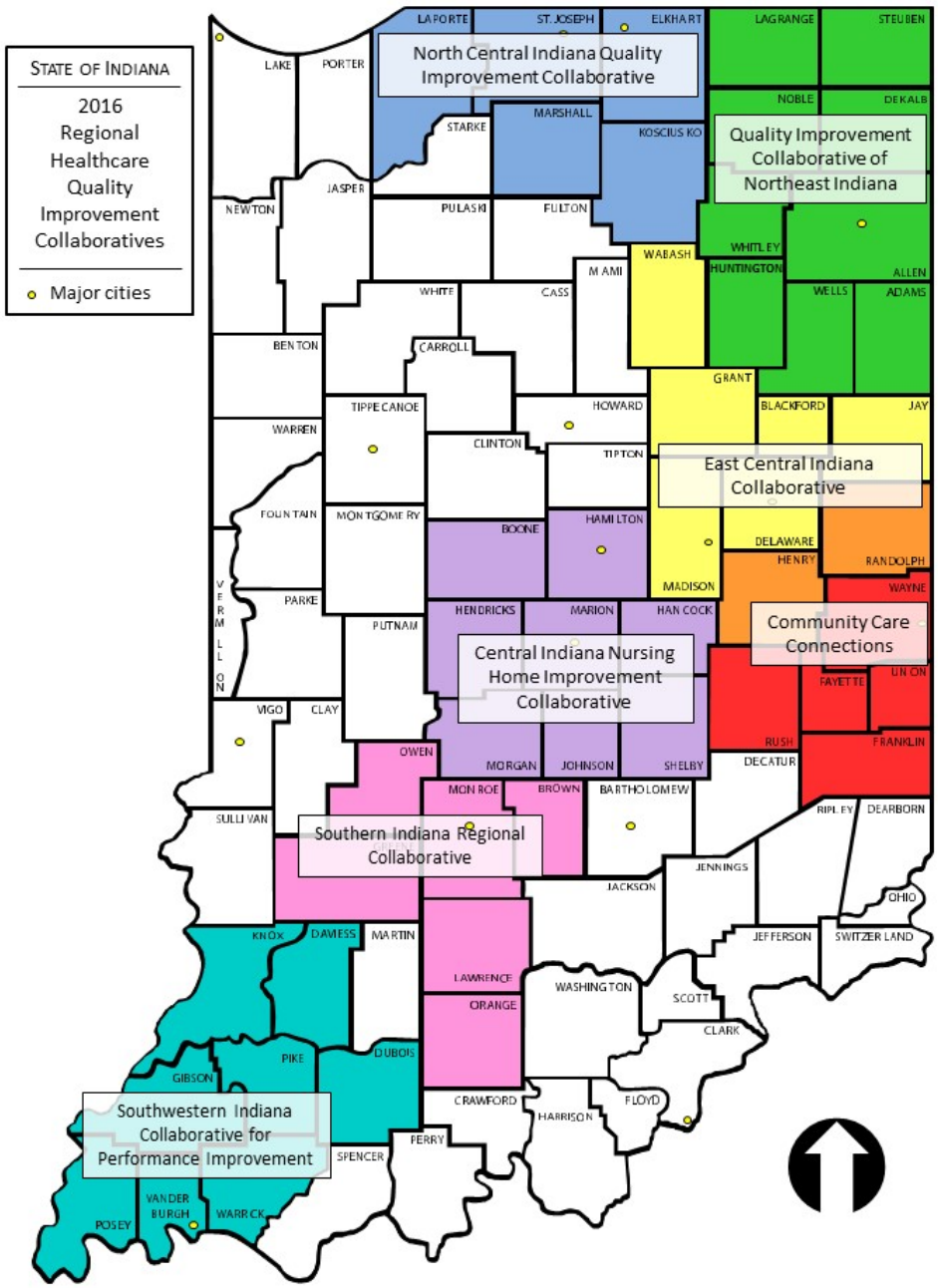
REGIONAL COLLABORATIVES

At the start of this project, proposals were requested for Regional Collaboratives to receive funding and participate in the 18-month project. Lead organizations submitted proposals that included the progress made toward forming their Collaborative, participants, strengths of the group, familiarity with QAPI, and any advance work that had been done to identify opportunities for improvement. CAC and ISDH reviewed these proposals and all funded seven Regional Collaboratives proposals. Initially, two Collaboratives were given two thirds of the full funding amount to allow for additional time to develop their Collaborative. Both of these Collaboratives completed the first PIP successfully and were awarded full funding. 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 Table 1. Figure 1 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.

Table 1. Regional Collaboratives

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

Figure 1. Participating Regional Collaborative Geographic Areas



Over the course of their 18-month grants, each Collaborative developed their Collaborative, recruited members, taught members about the QAPI process, and completed two QAPI PIPs. PIP topics are listed by Collaborative in Table 2.

Table 2. Regional Collaborative Process Improvement Projects

Collaborative	PIP 1 Topic	PIP 2 Topic
North Central Indiana Quality Improvement Collaborative	Reducing rates of UTI	Staffing retention
Community Care Connections	Reducing HAI-related hospitalizations	Staffing retention
East Central Indiana Collaborative	Reducing incidence of pneumonia infection	Reducing unnecessary use of anti-psychotics
Quality Improvement Collaborative of Northeast Indiana	Reducing rates of UTI through improved hand washing	Staffing retention
Southwestern Indiana Collaborative for Performance Improvement	Reducing rates of UTI	Reducing unnecessary use of anti-psychotics
Southern Indiana Regional Collaborative	Reducing rates of falls	Reducing rates of UTIs
Central Indiana Regional Collaborative	Reducing rates of UTI	Staffing retention

Community Care Connections

The Community Care Connections Collaborative (CCC) is led by Reid Hospital and was built upon a previously existing coalition. CCC focused on reducing HAI-related hospitalizations for PIP 1 and improving nursing staffing turnover for PIP 2. For PIP 1 – Reducing HAI-related hospitalizations, the Collaborative improved overall tracking of hospitalizations and implemented use of the Stop and Watch form as their intervention. Project 1 outcomes included a 38% reduction in HAI-related hospitalizations (Figure 2) and more than $240,000 saved in Medicare spend related to prevented re-hospitalizations. Leadership continued to track this project outcome and by May had saved $774,118. Secondary and consequential metrics were tracked as well. The percentage of residents with HAI-related hospitalization decreased by 37.8% (Figure 3) and overall hospitalization (which were anticipated to increase due to use of the Stop and Watch form) decreased by 12.9% (Figure 4) over the PIP 1 period. Collaborative leadership continues to track this data for collaborative members and continues to show reduction in HAI-related hospitalizations and increased saving for Medicare and residents. CCC lead Billie Kester reported that a new member facility that joined the collaborative in the final reporting period, in order to participate in PIP 2, has worked to enact PIP 1 in their facility and now reports data on HAI-related hospitalizations.

Figure 2. CCC HAI Related Hospitalizations per 1,000 Resident Days

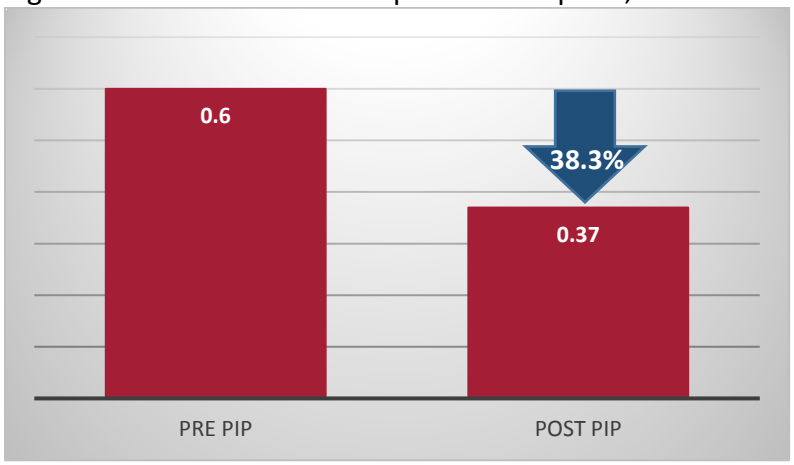


Figure 3. CCC Percentage of residents with HAI Related Hospitalization

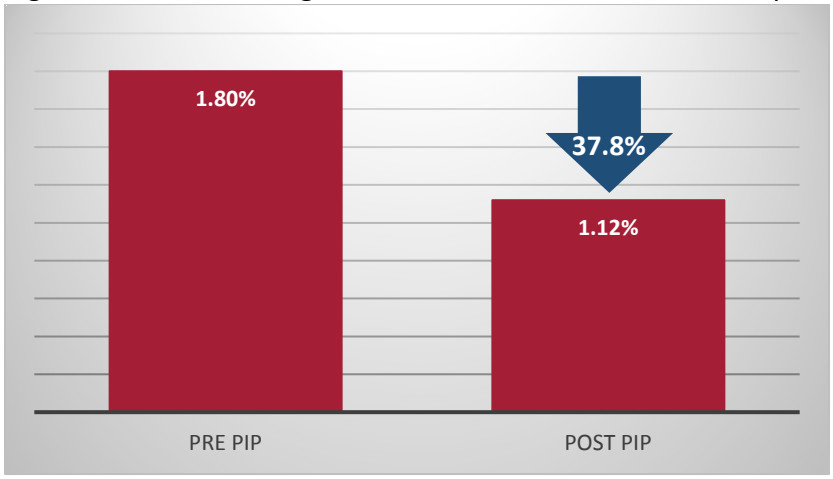
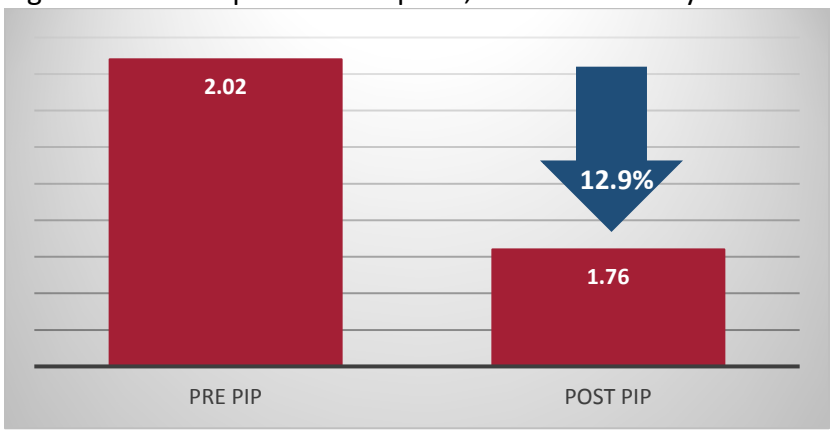


Figure 4. CCC Hospitalizations per 1,000 Resident Days



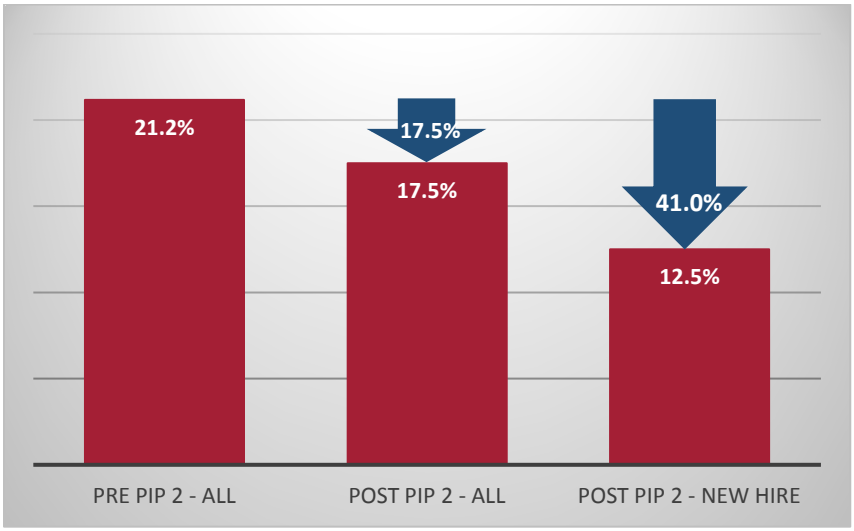
Successes for the PIP reported by CCC included:

- Breaking off our larger group into small group discussions helped the group open up more. In addition, using Wiggio (online communication platform) helped keep all members on the same page and engaged while also allowing a call-in number for meetings around data discussions.
- Allowing a large amount of time for baseline data collection enabled facilities to have awareness of current performance to better establish appropriate goals.
- Using a modified hospitalization log, facilities were able to glean areas of focus and discern where greater attention was needed. Just examining the data, facilities were able to find improvements.
- Monthly data reports distributed to members demonstrated improvements being made and spurred continued participation among those who were reporting.

- Relying on the Root Cause Analysis Tools (fishbone diagram, nominal voting, data sharing, etc.) and other Six Sigma/Lean resources was invaluable at facilitating the Collaborative.
- A monthly drawing for a gift card was conducted for all Stop and Watch form submissions. Upon drawing the winner, we visited the facility, presented the report and responder with a gift card, took their photo and sent it out to the Collaborative. This allowed others to see what was reported and encouraged participation from all.

For PIP 2, CCC addressed termination for certified nursing assistants (CNAs). Turnover for LPN and RN staff was also tracked, but the project focused on CNAs. In their root cause analysis, CCC determined that termination (voluntary and involuntary) rates were highest in the first 90 days after hire and thus chose to focus efforts here. As an intervention, facility administration engaged new hire CNAs in four meetings during their first four weeks of time in the facility. Additionally, staff satisfaction was measured through a survey in each facility. Project outcomes included a 17.5% reduction in Collaborative CNA termination rate and a 41% decrease when comparing termination rate for new hire CNAs to the baseline overall CNA termination rate (Figure 5).

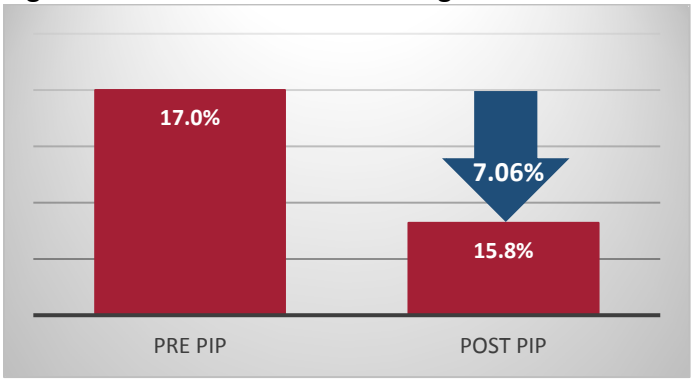
Figure 5. CCC CNA Termination Rates



Secondary metrics for this PIP included overall nursing staff turnover and the Collaborative star rating for staffing. The baseline Collaborative average turnover rate was 17%. Post intervention, the overall rate of termination was 15.82% - a 6.94% decrease (Figure 6) resulting in $42,231 in avoided turnover costs, $18,099 of which was due to retention of new hire CNAs alone. The Collaborative star rating for staffing improved from 3 stars to 4 stars for RN staffing and from 2 stars to 3 stars for overall staffing. A staff satisfaction survey was administered

prior to the PIP and at the end of the staffing PIP. Overall, CNA staff satisfaction improved by 3.28%. Staffing satisfaction for current CNA staff was tracked as a consequential metric due to concern that CNAs not targeted in the intervention would react negatively. While existing CNAs scored slightly lower than new CNAs on the staff satisfaction survey, overall scores were higher overall than baseline rates.

Figure 6. CCC Collaborative Average Turnover Rate



Successes reported by CCC for this PIP included:

- Promoted an "all-teach, all-learn" environment.
- CNAs attending leadership meetings were able to make connections between daily tasks and the bigger picture.
    - "One executive director described a CNA who had been employed by several facilities…while she was in attendance at one of the meetings, it was almost as if 'you could see a light bulb come on' for her," making the connection between her job and the facility.
- Through education sessions, seasoned and new CNAs came together to share experiences of how they felt under-appreciated by LPNs and RNs; this led a facility to create an orientation committee to never allow a new employee feel like an outsider again.
- By conducting the Staff Satisfaction Survey, it was pleasing to see that misconceptions regarding staff leaving as a result of the pay rate was dispelled by the data. The real reason for leaving was a result of management or feeling respected by co-workers.
    - This data allowed some facility leadership to be determined to tackle these staff satisfaction issues.
    - Communication among team members was scored low on the survey initially by both CNA groups surveyed. After interventions, the survey showed a 10-15% improvement in scores on communication between shifts.

- While pay did remain an issue for some facilities, as a result of data review, a facility noted that weekends resulted in higher call-in or no-show rate. This was shared with corporate office and a weekend option pay was approved for CNAs.

CCC intends to expand this PIP to other disciplines and incorporate this as a component of routine orientation for nursing staff. Ideas that have been generated include a "Role Play" date where staff members are given scenarios and asked how they would react or perform or share feelings on how this has impacted their commitment to their facilities. Other areas of concern from the staff satisfaction survey will be explored further. A full list of CCC members who participated in either project can be found in Appendix B.

Central Indiana Nursing Home Improvement Collaborative

The Central Indiana Nursing Home Improvement Collaborative (CINHIC) was led by CICOA Aging and In-Home Solutions (Area 8 Agency on Aging) and focuses on Marion and the surrounding counties. For the HAI-related PIP, CINHIC focused on reducing rates of UTIs. Member facilities completed individual root causes analyses and based interventions on that root cause. Interventions included improving peri-care, handwashing checks and education, and education on the signs and symptoms of UTIs. Over the course of the project, UTI rates in participating facilities decreased from 4.3% to 1.95%, a 24% reduction. This is illustrated overall in Figure 7 and by month in Figure 8 below.

Figure 7. CINHIC Average UTI Rates

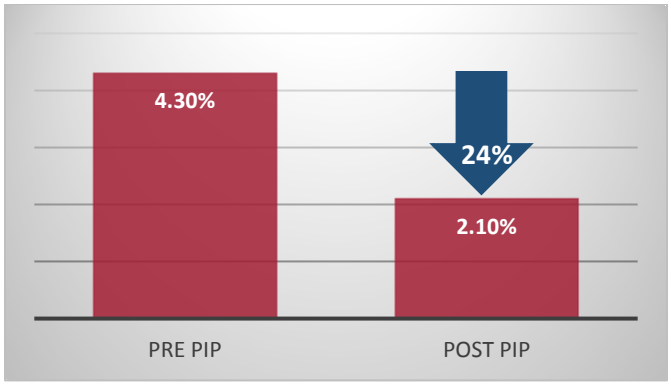


Figure 8. CINHIC Average UTI Rates by Month

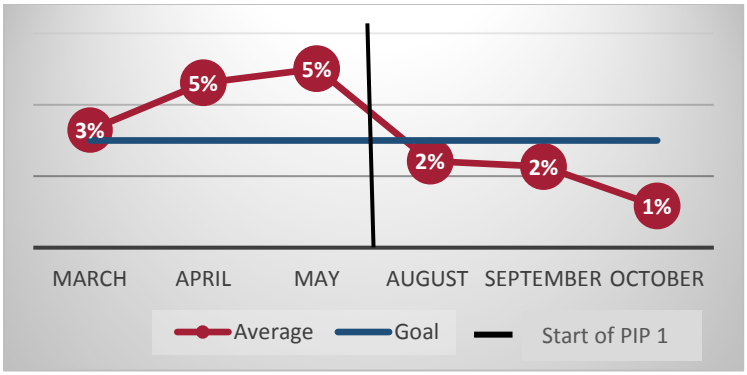
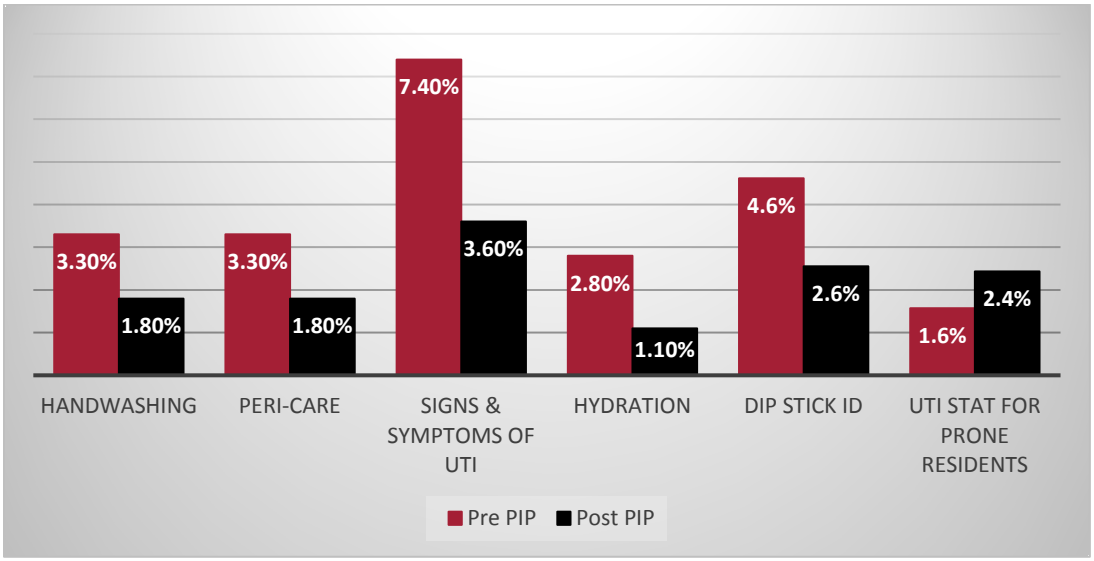


Figure 9. CINHIC UTI Rates by Intervention



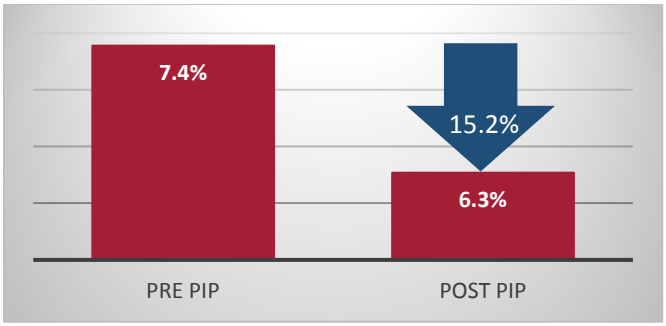
Successes reported by CINHIC for this PIP included:

- One nursing home assisted with data collection and offered to demonstrate their intervention on-site at their facility.
- Different facilities implemented varied combinations of interventions, which allowed comparison of outcomes for different interventions.

For their second PIP, CINHIC focused on CNA turnover. Initial Collaborative conversations explored the topic of overall staffing turnover, but the root cause analysis showed that the highest rates of turnover were for CNAs, narrowing the focus of the project. In this Collaborative, members completed an additional facility specific root cause analysis and determined interventions individually based on these analyses. Interventions included increased pay, employee appreciation activities, and a mentorship program for CNAs. Project

outcomes included a 15.2% reduction in turnover for CNAs between baseline (2015) and the intervention period (2016) as shown in Figure 10.

Figure 10. CINHIC CNA Turnover Rates

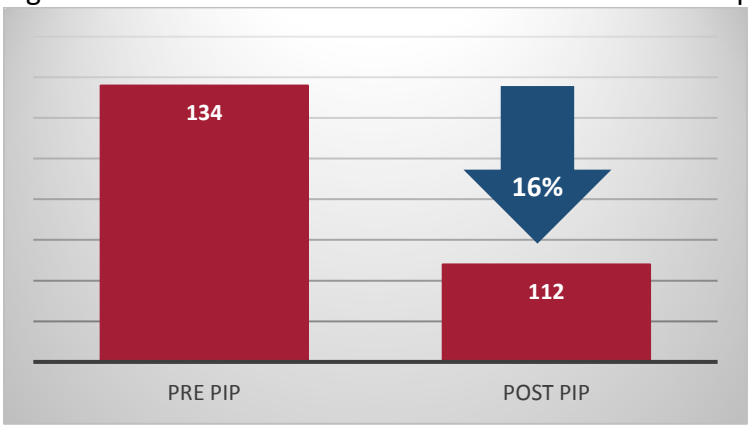


CINHIC identified the high level of participant engagement from the onset as a success, and attributed it to the pervasive nature of this problem. A full list of CINHIC members can be found in Appendix B.

East Central Indiana Collaborative

The East Central Indiana Collaborative (ECIC) is led by LifeStream Area 6 Agency on Aging. In PIP 1, the Collaborative looked at reducing the rate of pneumonia in participating member facilities. Collaborative members performed individual root cause analyses and determined individual interventions. These included education, increased vaccinations, early identification and prevention of aspiration pneumonia, improved handwashing, and improved infection prevention by housekeeping. Over the course of the project, ECIC reduced pneumonia cases in participating facilities by 16%, saving $14,709[1] (Figure 11).

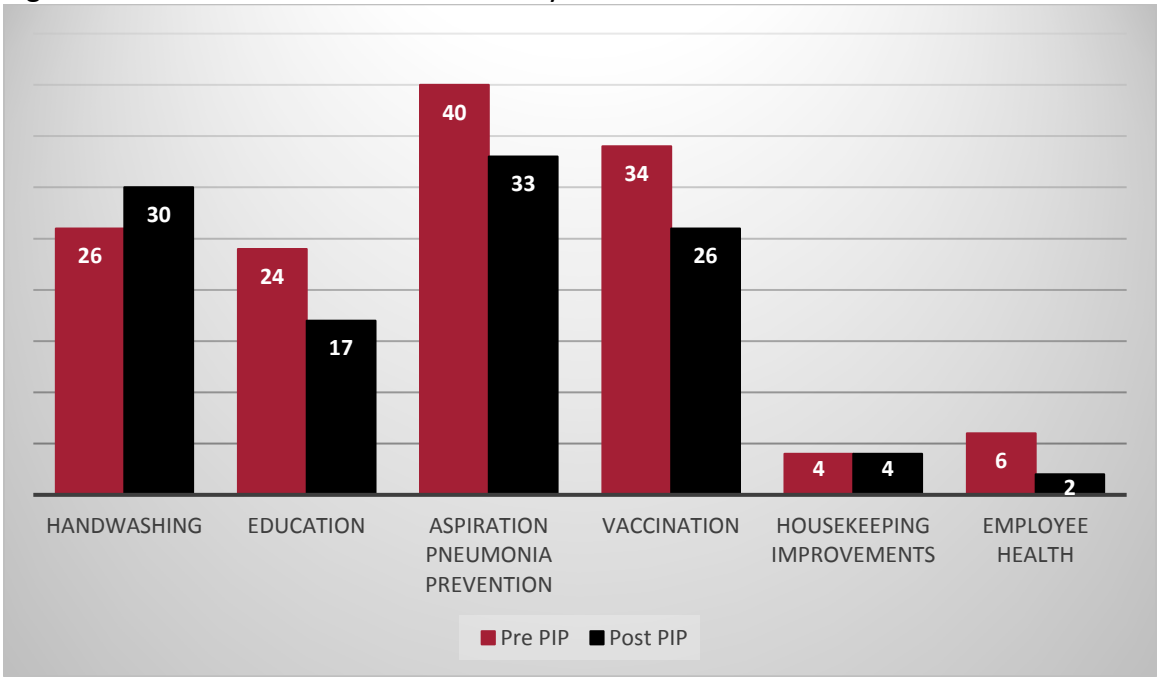
Figure 11. ECIC Number of Cases of Pneumonia in Participating Facilities



[1] http://www.ncbi.nlm.nih.gov/pubmed/12807579 $458 to treat in 1998, adjusted for inflation.

ECIC tracked interventions separately (Figure 12) and showed that interventions targeting education (29% reduction), promotion of vaccinations (23.5% reduction), and preventing aspiration pneumonia (17.5% reduction) were the most effective.

Figure 12. ECIC Pneumonia Occurrences by Intervention



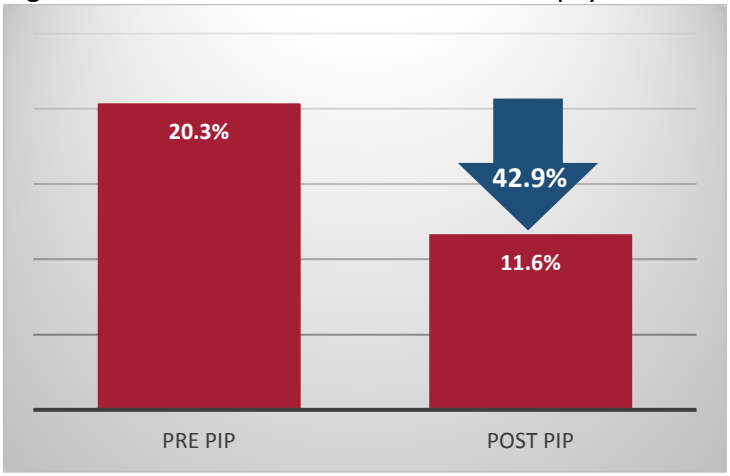
Interestingly, the facilities that implemented handwashing interventions showed an increase in pneumonia rates. The facility that showed this increase reported that they also implemented isolation precautions for anyone with pneumonia symptoms and had difficulty in gaining staff buy-in. Both of these may have led to no actual change in staff hand hygiene procedures. It is recommended that a process measure be used in the future to more accurately track if the intervention happens as planned.

Successes reported by ECIC included that the Collaborative meetings and a variety of interventions across facilities gave members the opportunity to learn from each other, increasing knowledge and brainstorming power.

For the second PIP, ECIC worked to reduce the use of unnecessary antipsychotics with patients in the facilities. Members performed individual root cause analyses and chose interventions based on the root causes determined including improved intake processes; periodic gradual dose reduction (GDR) meetings; and education for family, staff, and physicians. Project outcomes included a 43% reduction in doses across the Collaborative (Figure 13). Qualitative outcomes included that staff felt more empowered, had more buy-in, and understood the residents' point-of-view better as a result of the education interventions. One facility worked

to increase referrals to mental health services and had a deficiency free survey during this period.

Figure 13. ECIC Collaborative Doses of Antipsychotic Medications



Successes reported by ECIC included:

- Overall, facilities who worked with staff reported that staff felt more empowered and were more engaged in looking for alternatives to medications for residents.
- With the training done for staff, they also have a better understanding related to dementia patients in general.
- Family members who agreed to reductions saw positive outcomes for the residents.

A full list of ECIC members can be found in Appendix B.

North Central Indiana Quality Improvement Collaborative

The North Central Indiana Quality Improvement Collaborative (NCIQIC) was led by REAL Services Area 2 Agency on Aging and is an expansion of an existing collaborative. The NCIQIC HAI-related PIP was to reduce rates of UTIs. Collaborative members performed individual root cause analyses and determine individual interventions. These included better adherence to McGeer criteria, improved interdisciplinary communications, increased hydration, peri-care education, handwashing education, and monitoring. The Collaborative reduced UTIs by 51% and saved $15,000 across seven facilities[2]. This is illustrated in Figure 14 and Figure 15 below.

[2] https://www.vdh.virginia.gov/Epidemiology/Surveillance/HAI/uti.htm $1000 per UTI

Figure 14. NCIQIC UTI Rates of UTIs

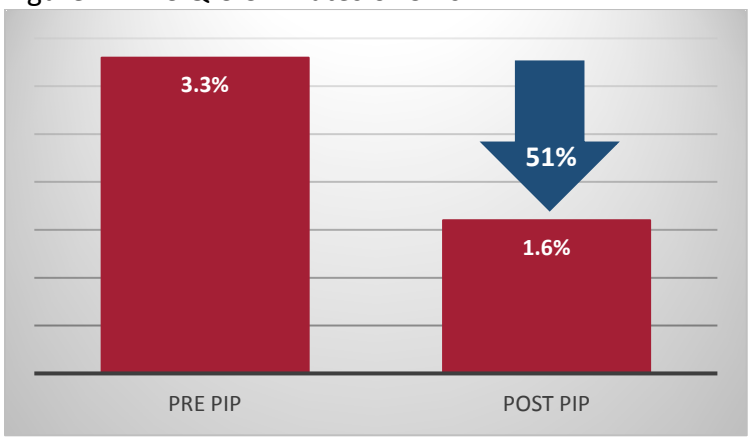
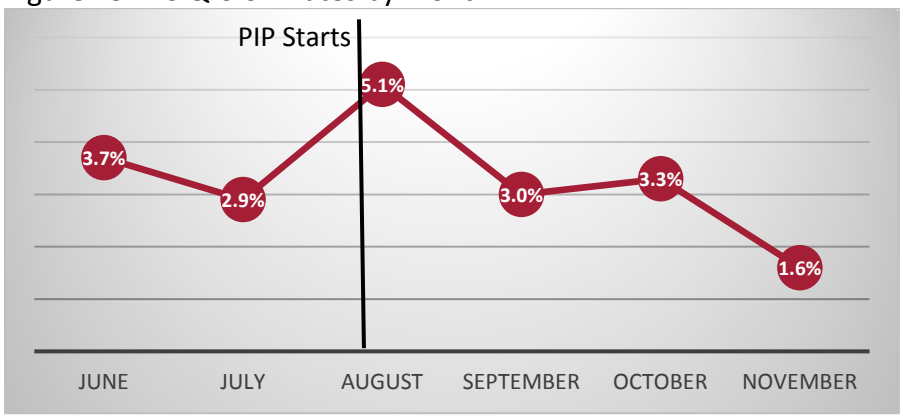


Figure 15. NCIQIC UTI rates by month



Successes reported by NCIQIC for this project included:

- Collaborative meetings and quarterly workshops with educational opportunities allowed members to learn new interventions from other facilities.
- QAPI foundation, including QAPI teams in each facility
- Communication with lead agency, including e-mail communication, forwarding information and being understanding when they cannot attend meetings
- Learning about data sources
- The collaborative structure provided accountability.

For PIP 2, NCIQIC worked on improving retention of CNA staff. Members performed individual root cause analyses and selected the intervention that would best address the root cause, including changes to new employee orientation, increased exit interview, new employee referral programs, employee appreciation activities, team huddles, and a preceptor program. Outcomes included increasing the overall Collaborative CNA staff average by 32.3% (Figure 16 and Figure 17).

Figure 16. NCIQIC CNA Staff Average

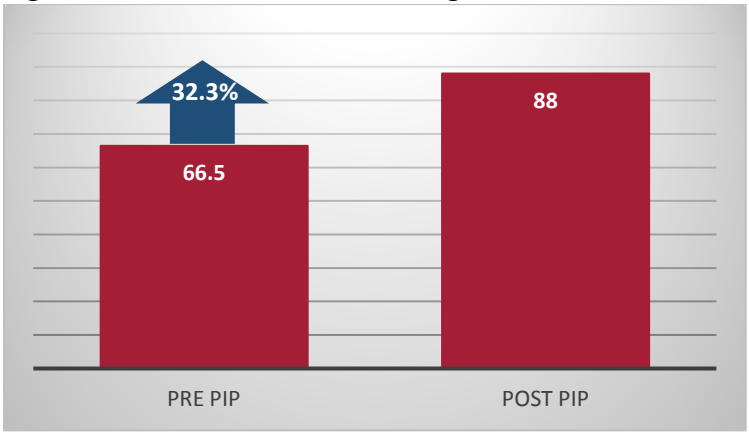
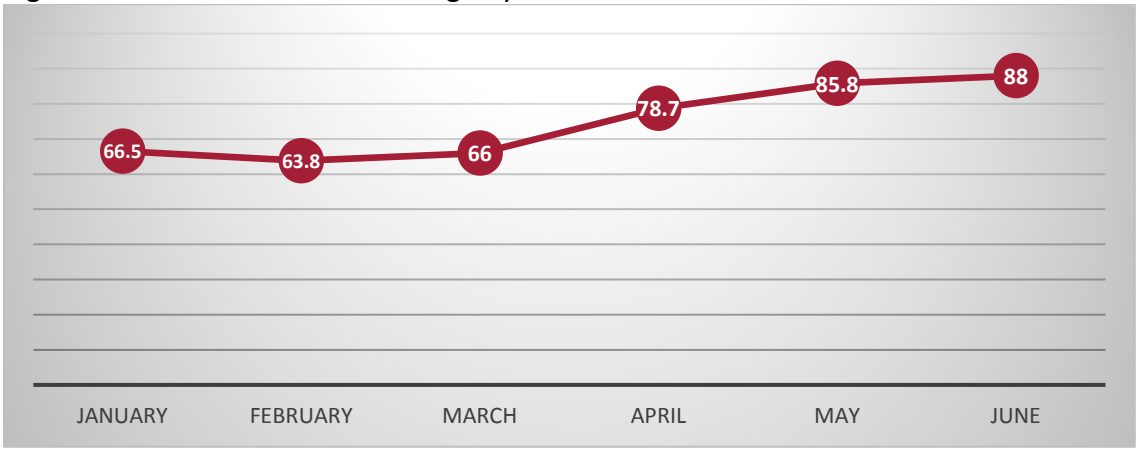


Figure 17. NCIQIC CNA Staff Average by Month



Successes reported by NCIQIC for this project included:

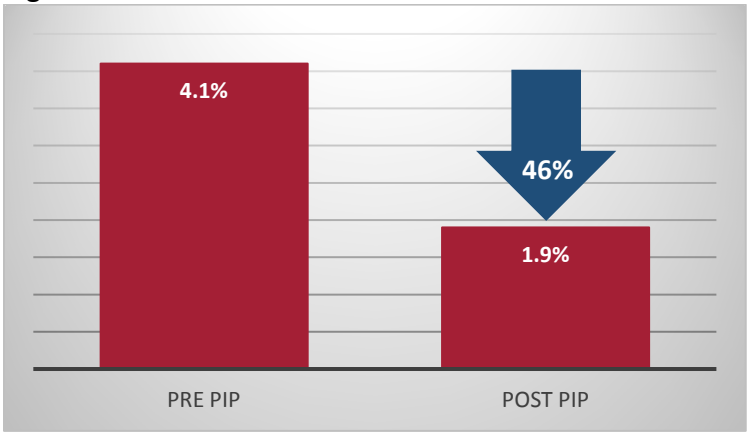
- Walking through the QAPI process allowed facilities to define what would be tracked, discuss each component to the data, and ensure each facility was able to collect the same data.
- Evidenced-based research on effective methods to retain staff that was presented to the Collaborative was helpful.
- Training on understanding the millennial generation helped in choosing interventions.

A full list of NCIQIC members can be found in Appendix B.

Quality Improvement Collaborative of Northeast Indiana

The Quality Improvement Collaborative of Northeast Indiana (QICNE) is led by Area 3 Aging and In-Home Services of Northeast Indiana and has a strong membership base. The Collaborative's first PIP was to reduce rates of UTIs. The Collaborative collectively identified poor hand hygiene was the root cause and chose to use the iScrub app which includes hand hygiene observations, tracking, and education as the intervention. Collaborative leadership created paper versions of the app for members without access to an Apple product to run the app. By the end of the PIP 1, the Collaborative reduced UTIs by 46% and saved $32,000 across 9 facilities.

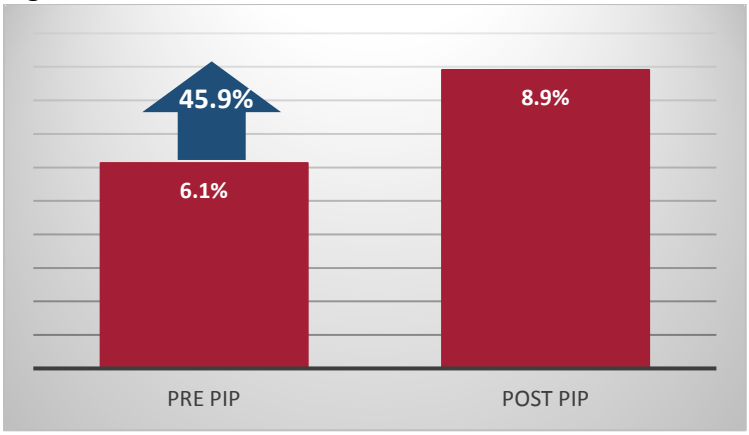
Figure 18. QICNE UTI Rates



Additional outcomes included decreased number of staff sick days used and fewer citations on state surveys.

For the second PIP, QICNE focused on CNA staffing turnover. Leadership sent out a survey based on job satisfaction to 363 CNAs in the member facilities to begin a root cause analysis. Each member facility utilized their individual results for further root cause analysis of staff turnover and implemented interventions to address these causes, including employee appreciation, flexible scheduling, daily huddles for better staff communication, and updating the orientation process. Additionally, a monthly meeting for CNAs from participating facilities was established. Ongoing, this meeting is used to engage CNAs in the project and gain their input and feedback on root causes and potential interventions. Formation of this group is also seen as an intervention for this PIP. A second goal of this group is to provide additional education for CNAs and help to increase recognition of their profession. Project outcomes showed an increase in CNA turnover rates during the course of the project (Figure 19). Qualitative data for the survey was not reported.

Figure 19. QICNE CNA Turnover Rates



A significant challenge of this project was the lack of available data from facilities. Collaborative leadership was unable to obtain annual turnover data from members and thus had only data from the five month of project implementation. Thus the baseline was a single month where turnover is typically low and project end data was an average of a two month period with typically high turnover. Additionally, there is significant monthly fluctuation for turnover; thus a single month is not necessarily representative. Had the Collaborative been able to compare year-to-year data, they may have seen better results for their project.

Successes reported by QICNE for this project included:

- Established a non-competitive, open environment very soon into the formation of the group. Participating members felt comfortable sharing and asking questions of each other.
- Identification of helpful resources, speakers and tools that facilities did not have before
- The formation of a CNA Networking Group that met monthly to discuss challenges and offer educational training and networking opportunities for CNAs from area nursing homes proved to be a success and helpful for learning and sharing.
- Linking activities with the QAPI steps throughout the project helped educate and formalize what many were already doing.

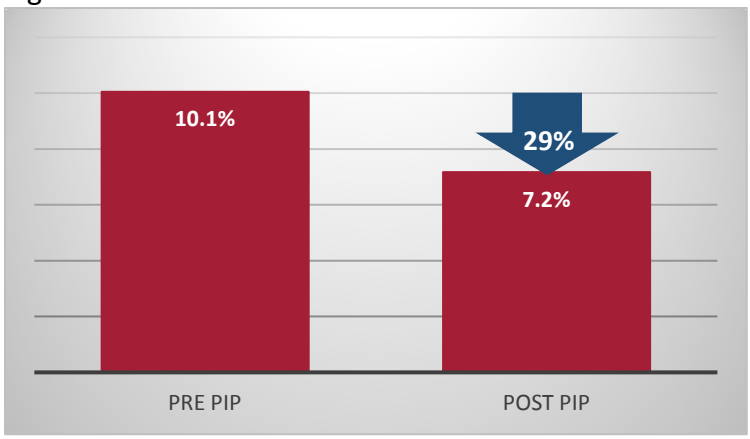
A full list of QICNE members can be found in Appendix B.

Southern Indiana Regional Collaborative

The Southern Indiana Regional Collaborative (SIRC) was led by the Indiana University School of Public Health – Bloomington (IU SPH-B). After the first PIP, interested members were added to the leadership team. The leadership team included several graduate students from IU SPH-B. The initial graduate student had significant experience with care of persons with dementia and thus the Collaborative chose to postpone their HAI focused project until PIP 2. Once the

Collaborative reviewed and analyzed their data however, the group determined that a more pressing area of interest was reduction of falls – the focus of PIP 1. Members performed the root cause analysis individually and selected corresponding interventions which included education and training for family and staff, an "alarm vacation" where alarms were turned off from 11pm-5am to promote better sleep, and adjustment of bed heights – marked by bright duct tape so anyone could correct a bed height if needed. By the end of PIP 1, the Collaborative reduced falls by 29% across three facilities (Figure 20), saving an estimated $560,000 in avoided costs due to prevented falls[3]. Five facilities participated in PIP 1 for SIRC, but there were challenges with reporting outcome data for two of the facilities. Their baseline data was reported for the entire facility but the intervention was implemented in and outcome data reported for only a section of the building. Due to this discrepancy, final collaborative outcomes data is from only three facilities. It is speculated however that the two facilities with inadmissible data also achieved similar results and the impact of the SIRC PIP 1 is greater than reported.

Figure 20. SIRC Rates of Falls



Success of this project as reported by SIRC included:

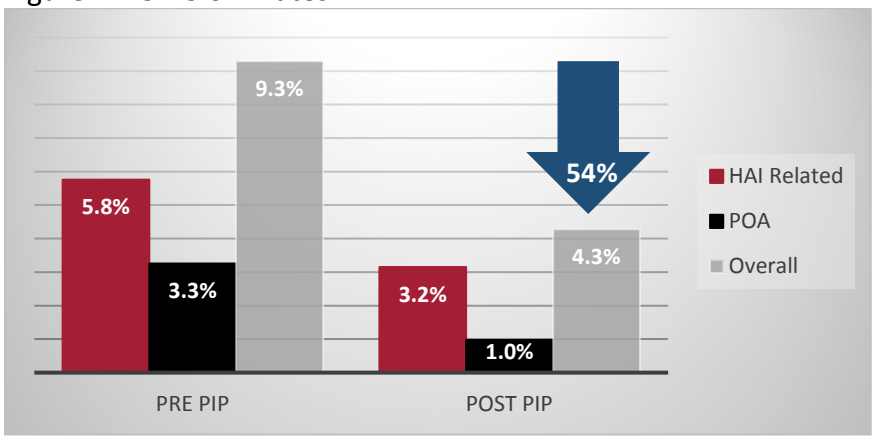
- Implementing the PIP in the facilities showed that the QAPI process was successful. It helped facilities to start talking to one another, sharing what interventions worked and which did not.
- The Collaborative learned more ways to increase participation and recruitment.

For PIP 2, SIRC focused on an HAI topic and chose to build on the lessons learned and success of other Collaboratives, choosing to focus on reducing the rates of UTIs. Members performed individual root cause analyses and chose corresponding interventions including education on, improving hand hygiene and pericare processes and improving adherence to McGeer criteria for reporting and tracking. Project outcomes include a 54% decrease in UTI rates, a 45.3%

[3] http://www.cdc.gov/homeandrecreationalsafety/falls/fallcost.html $35,000 per fall

reduction in HAI-related UTI rates, and 70.2% decrease in present on admission UTI rates (Figure 21).

Figure 21. SIRC UTI Rates



Success of this project, as reported by SIRC, included:

- Facilities continue to discuss their success stories and barriers, along with expanding their network by getting to know new members.
- The Collaborative learned new ways to increase participation and membership – involving members in meeting planning, "show and tell" opportunities for members to showcase their methods, giving presentations at meetings (and inviting guest speakers), and recruiting members through personal outreach.
- The Collaborative has strengthened its foundations and transitioning to new projects is becoming more fluid.
- The Collaborative allowed for leadership development and network development for members, as well as an increased understanding of QAPI and data measurement, monitoring, and reporting.
- Increased access to shared ideas and resources among members, and from project resources (UIndy, QSource, ISDH, Koehler Partners and IU School of Public Health)

A current list of SIRC members can be found in Appendix B.

Southwestern Indiana Collaborative for Performance Improvement

The Southwestern Indiana Collaborative for Performance Improvement (SWICPI) is led by Gibson General Hospital Skilled Nursing Facility and was initially partially funded during the award period. The review committee had concerns about the development of the Collaborative and wanted to give the leadership team ample time to recruit members. The leadership's continued focus on members and engagement resulted in SWICPI being one of the best attended and largest Collaboratives in the project. For their initial HAI project, SWICPI focused on reducing UTI rates. Root cause analysis was performed by the members and

individual interventions were chosen. These included hand hygiene education, pericare training, a silver nitrate periwash for prone residents, interdisciplinary team review for suspected UTIs, and a focus on the true definition of UTIs (McGeer criteria) to avoid false positives and over treatment. Over the course of the project, SWICPI was able to reduce UTI rates in participating facilities by 38%. This is illustrated in Figure 22 and Figure 23 below.

Figure 22. SWICPI UTI Rates

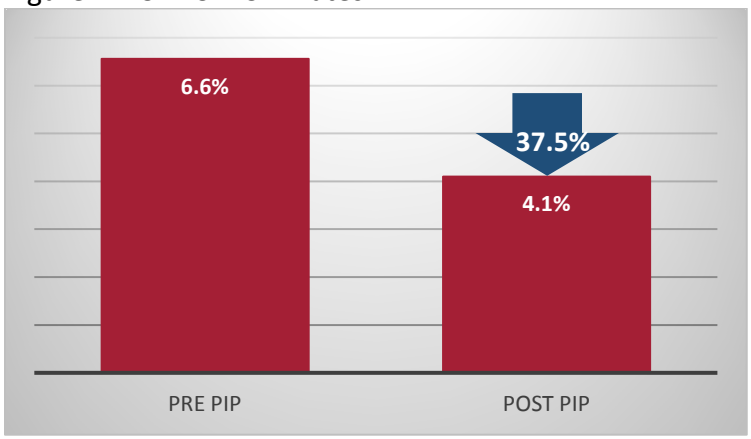
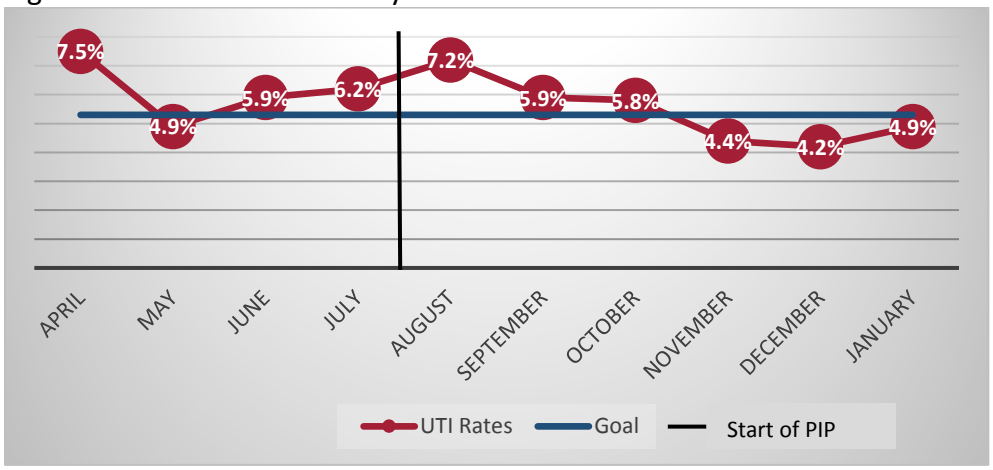


Figure 23. SWICPI UTI Rates by Month



SWICPI was successful in reducing their UTI rates below the state average. Interestingly, there is a spike in the UTI rate the first month of the intervention. This is likely due to increased scrutiny of the metric and better reporting of the data. Rates quickly fell back down in the second month of reporting.

Successes reported by SWICPI for this project included:

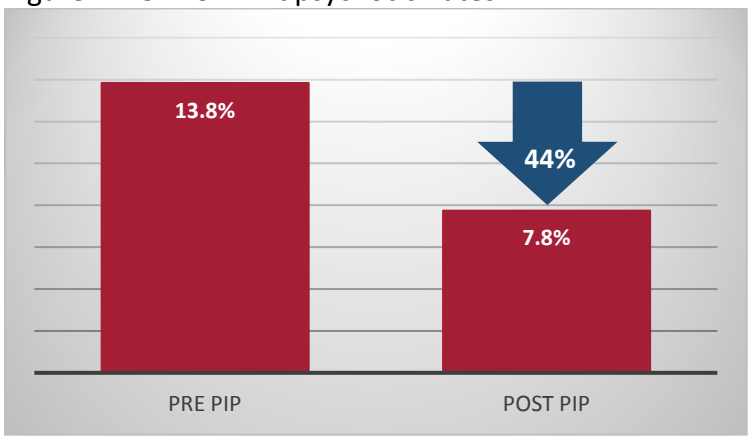
- Participation rates remained high throughout the project, with 16 of 18 facilities reporting final results and 17 or 18 completing participation in the project. The group requested (and implemented) meeting agendas one week prior to meeting; meetings on

a defined rotation; reminders prior to each meeting; and meeting summaries emailed monthly (including who attended). Guest speakers participated in most meetings helping lead to strong attendance.

- The group maintained a Collaborative directory and implemented an attendance policy.
- Allowing each facility to develop its own intervention and requiring a common data source (infection control logs) were successful strategies. Each facility has been expected to perform its own root cause analysis to drive development of interventions.
- The Collaborative partnered with the University of Southern Indiana (USI) to collect and trend its data, which assured confidentiality. Data were collected via Qualtrics using email for submission.
- SWICPI contracted with a Physician Advisor, who attended meetings and provided direction and advice to the group, as well as adding credibility to the group. QSource had a representative at most meetings and was helpful in educating the group about QAPI. Also, ISDH had a representative at nearly all meetings, which has been good for morale and has encouraged participation.

For the second PIP, SWICPI determined it would focus on reduction of unnecessary antipsychotics. Root cause analysis was completed individually and members chose corresponding interventions. These included increased education about preventing and managing challenging behaviors, monthly interdisciplinary meetings, creating personal interest boxes for residents, increasing behavioral interventions rather than pharmaceutical interventions, and completing a pain assessment prior to requesting/prescribing antipsychotic medications. Over the course of the PIP, SWICPI was able to reduce Collaborative antipsychotic medication rates by 44% (Figure 24).

Figure 24. SWICPI Antipsychotic Rates



Successes reported by SWICPI for this project included:

- Residents, after a reduction, did better than before and had higher quality of life.
- The Collaborative improved processes for reviewing challenging resident behaviors and collaboration with floor staff to develop non-pharmacological approaches to challenging behaviors.
- The Medication Administration Record (MAR) was a useful, common, and primary data source.

A full list of SWICPI members can be found in Appendix B.

TECHNICAL ASSISTANCE

The CAC Project Team provided technical assistance to the Collaboratives throughout the course of the project. Technical assistance was offered through monthly phone calls with the leadership of each Collaborative individually, monthly webinars for all Collaborative leaders, attendance at Collaborative meetings and three day-long Collaborative Leadership team meetings in Indianapolis. Table 3 below details the hours of technical assistance provided by type.

Table 3. Technical Assistance Provided

Technical Assistance Type	Hours Provided
Monthly phone calls	111
Monthly webinars	14
Monthly Collaborative meetings	108
Collaborative Leadership team meetings	27

Monthly Phone Calls

CAC Senior Project Director Ellen Burton continued to hold monthly calls with each collaborative to discuss successes and challenges as well as areas where CAC and Koehler Partners could provide assistance. At their request, calls with SIRC were held on a weekly basis. Calls lasted up to an hour and focused on the progress Collaboratives had made and next steps for each group. Frequently technical assistance calls were used to plan and finalize the agenda for the next Collaborative meeting or share helpful resources with Collaborative leaders.

Monthly Webinars

CAC Project Team and Koehler Partners developed and delivered monthly webinars for Collaborative leaders on a monthly basis. Webinars lasted an hour and addressed common challenged across Collaboratives, next steps in the QAPI process, or grant requirements such as reporting. It also gave Collaborative leaders a monthly opportunity to connect with each other to share lessons learned and provide support between Collaboratives. There were many instances of shared resources or knowledge and frequent group brainstorming for solutions. Topics covered via webinar included:

- Member recruitment and engagement
- Collaborative communication and governance
- PIP development
- Sustaining member engagement
- Project close out
- Project Sustainability
- Transitioning between PIPs
- Data reporting
- Making QAPI relevant to all departments
- Lessons learned from PIP 1
- Collaborative sustainability

Monthly Collaborative meetings
CAC Project Team members and Koehler Partners attended meetings of each Collaborative as requested and as possible. At least one meeting was attended for each Collaborative every quarter, more frequently per the leadership's request. CAC and Koehler partners frequently led meetings or presented as part of the agenda, but also served in an observational role depending on the needs of the individual Collaborative or point in the project.

Collaborative Leadership Team Meetings
Three times during the course of the project, all Collaborative leaders came to Indianapolis for a one to two-day Leadership Team meeting. These meetings were an opportunity for Collaborative leaders to learn about the next steps of the project and to discuss in depth with each other, CAC Project Team, Koehler Partners, and ISDH. The first Leadership Team meeting was held January 22 & 23, 2014. Leaders were introduced to the project, taught best practices for forming and sustaining a Collaborative, learned the QAPI process and how to implement with their Collaboratives, data and evaluation best practices, and the details of the grant logistics – reporting, timelines, and deliverables.

The Midpoint meeting was held October 14, 2015 as Collaboratives were transitioning between PIP 1 and PIP 2. This meeting addressed topics identified and requested by Collaborative leaders. Those topics included the current environment of nursing homes - a Nursing Home 101 for leaders who were not as familiar with the day to day operations of facilities, a discussion of current progress, success and challenges for each Collaborative, ISDH and Federal updates, a refresher on the QAPI process, how to make QAPI relevant to all departments, and next steps as Collaboratives moved toward Project 2.

The final project close-out meeting was held June 30, 2016 – the final day of the Collaborative's grant timeframe. This meeting focused on lessons learned from PIP 2, ongoing engagement and membership development, how to sustain Collaborative activity until there was word of continued funding, and discussions of a toolkit that would be developed to guide future Collaboratives through this process based on lessons learned.

Agendas for these meetings can be found in Appendix C

EVALUATION

Evaluation for this project focuses on the initiative's two key aims:

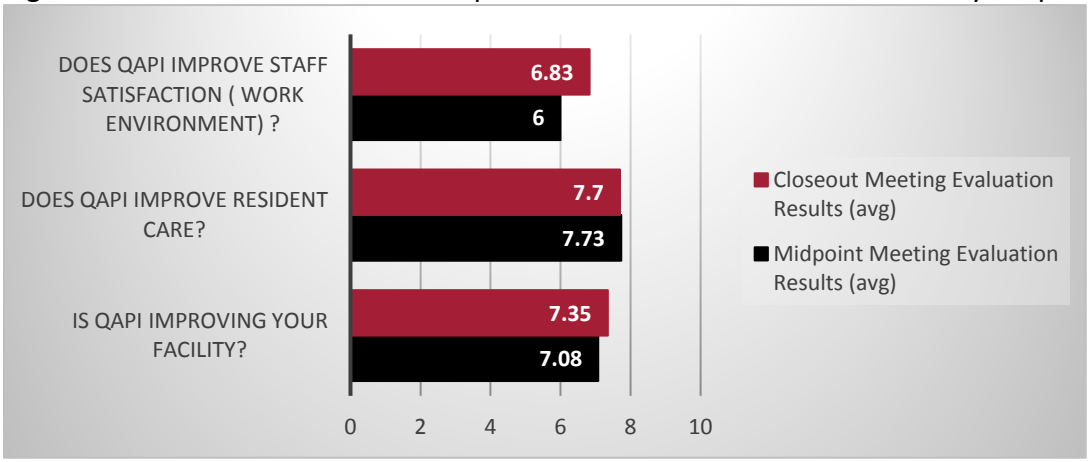
1. Establish successful, sustainable regional Collaboratives that support process improvement efforts in long term care facilities.
2. Improve specific quality indicators in the participating facilities.

Establish successful, sustainable regional Collaboratives that support process improvement efforts in long term care facilities.

Under this initiative, seven Regional Collaboratives were created and sustained, each completing two QAPI projects. All seven of these Collaboratives are still functioning smoothly at the close of this project, beyond the scope of their grant period. All Collaborative leaders report that members indicate strong interest in participating in the Collaborative moving forward. To gauge the experience of Collaborative members, CAC and SIRC Collaborative lead Lesa Huber created a survey that was distributed to all members, asking about their experience, successes and challenges. Highlights from this feedback include:

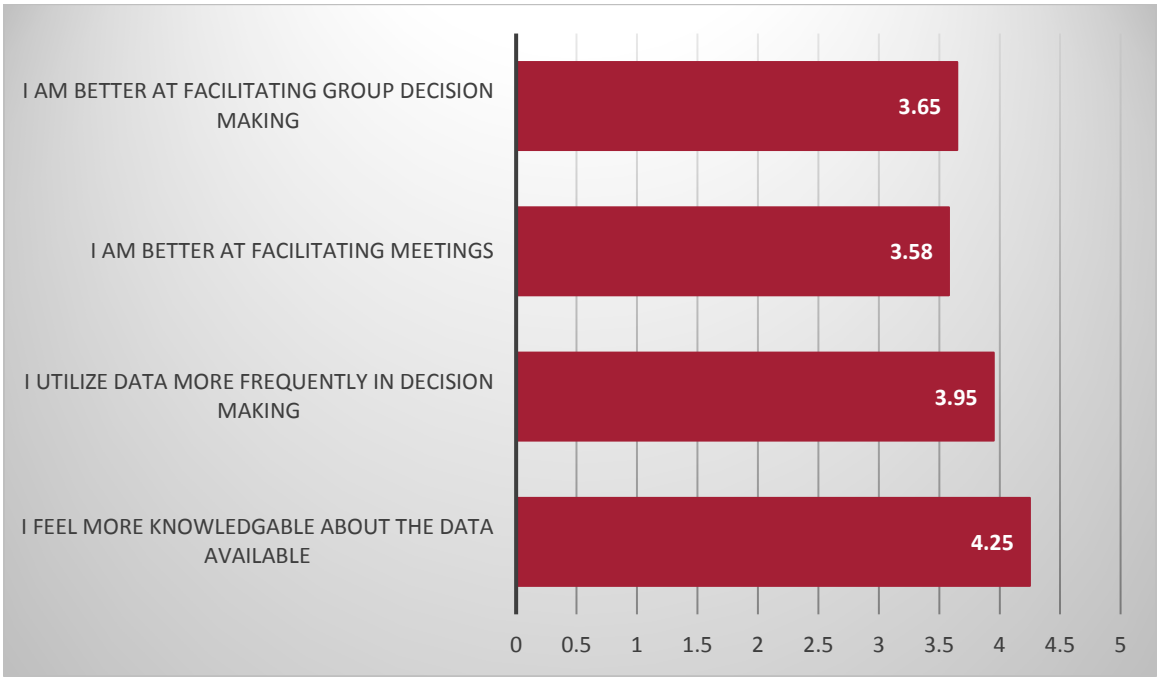
- Collaborative meetings and Collaborative leadership were indicated as the most valuable resource for success in both learning the QAPI process and for successful PIPs (1 & 2).
- After the end of PIP 1, time was indicated as the main challenge to both learning QAPI and completing a PIP. By the end of the project, the number of members indicating time as a challenge decreased noticeably. This could be an indication that participation in the Collaborative process made using QAPI less time consuming and/or that QAPI was now prioritized in terms of time spent.
- The majority of the challenges highlighted by members decreased between the midpoint and end of the project, again, a possible indication that QAPI was becoming more integrated into the culture and functioning of the member facilities.
- One challenge that did increase was corporate buy in and support of Collaborative participation.
- Members were asked to share their impressions of QAPI and its impact. Members indicated that QAPI improved staff satisfaction, resident satisfaction, and quality within their facility. These rankings were high at the midpoint and increased by the end of the project, as shown in Figure 25.

Figure 25. Collaborative Member Impressions of the Value of QAPI – Survey Responses



- Members also indicated on the endpoint survey that they gained valuable skills from the project: increased comfort and knowledge about available data and ability to use data in decision making as well as improved facilitation skills for meetings and group decision making (Figure 26).

Figure 26. Skills gained from QAPI Participation – Survey Responses



- The Collaboratives had a significant impact on individual facilities' development of their facility QAPI plan. At the start of the project, almost a third of survey respondents did not have a facility QAPI plan. Per the survey, all but one of those who indicated they did

not previously have a QAPI plan, now had a plan completed or in progress. Of those who indicated they did have a QAPI plan, 98% updated their plan during the course of the Collaborative project. All who answered indicated that the Collaborative was helpful in developing their facility QAPI plan. These results are illustrated in Figure 27, Figure 28, and Figure 29 below.

Figure 27. "Did you have a facility QAPI Plan prior to your participation in the collaborative?" Survey Responses

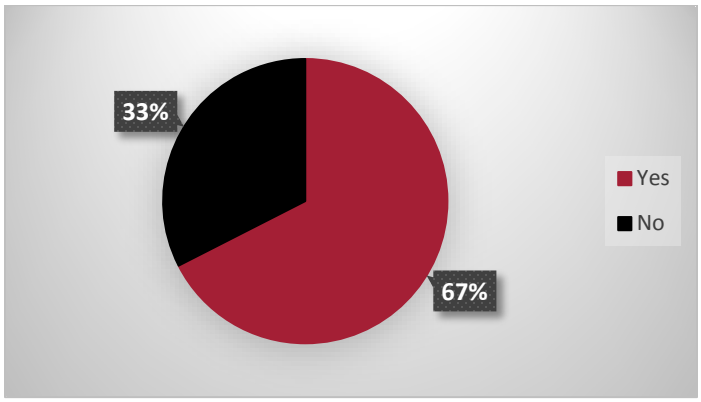


Figure 28. "(If No) Do you have a facility QAPI Plan?" Survey Responses

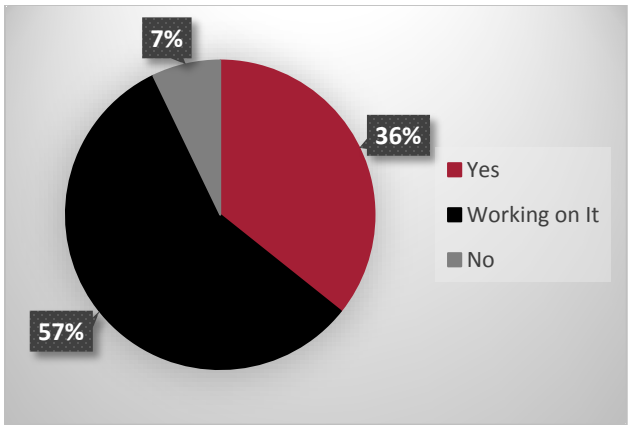
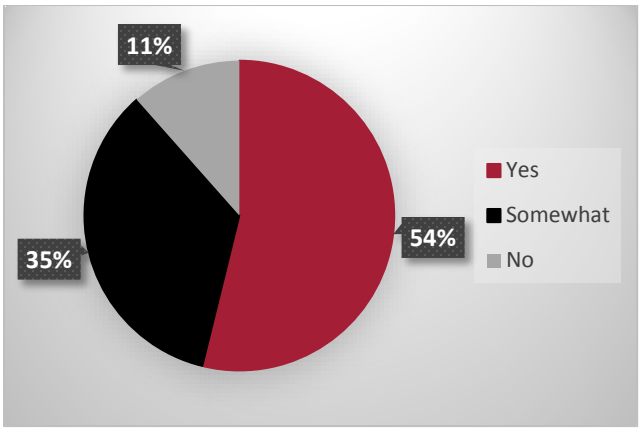


Figure 29. "(If yes) Have you updated or improved your facility QAPI Plan as part of your participation?



The full results of this survey can be found in Appendix D.

As discussed in the Technical Assistance section, monthly webinars, monthly phone calls, and three Collaborative Leadership Team meetings were implemented to support Collaborative leads in establishing effective and sustainable Collaboratives. All technical assistance received positive feedback from leadership. Collaboratives report that the webinars were well-run and

were helpful and informative. While monthly average scores range from 3-5, overall average scores resided within the notable mid-4 range (1 = the lowest, 5= the highest). These scores reflect the positive feedback received from Collaborative leadership and are detailed in Figure 30 and Figure 31 below.

Figure 30. Overall Monthly Webinar Evaluation Rankings

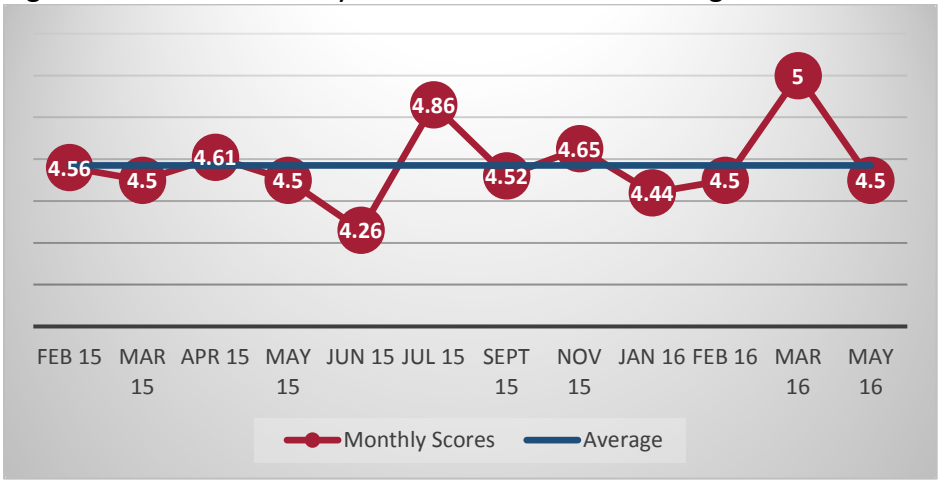
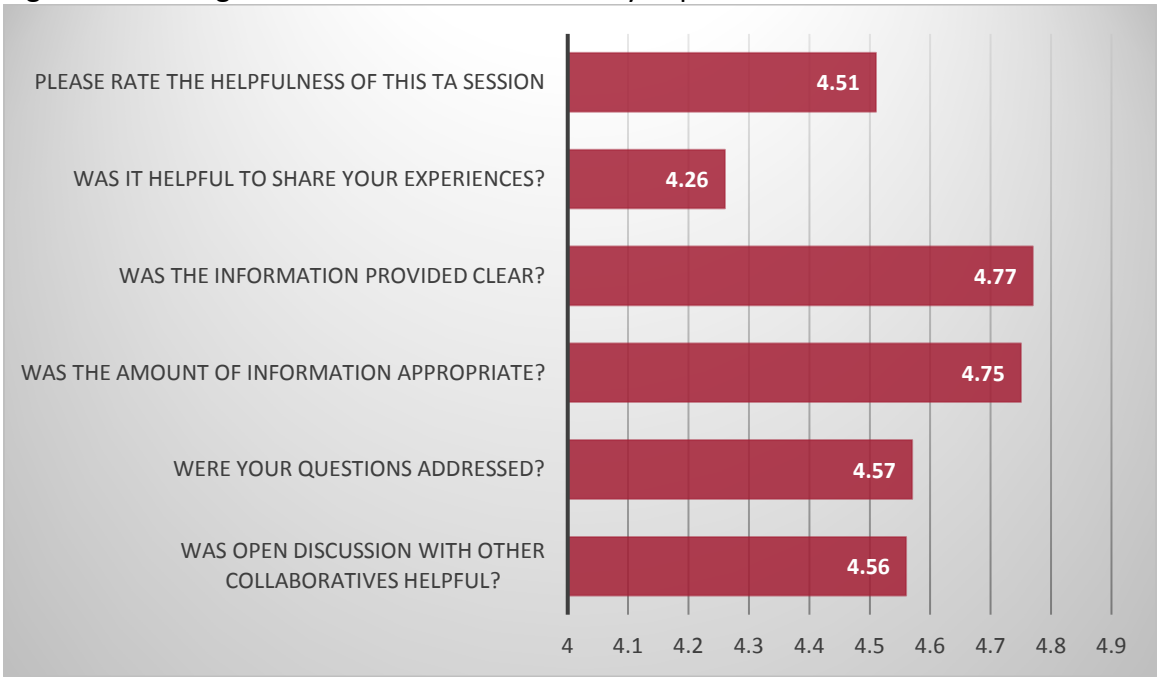
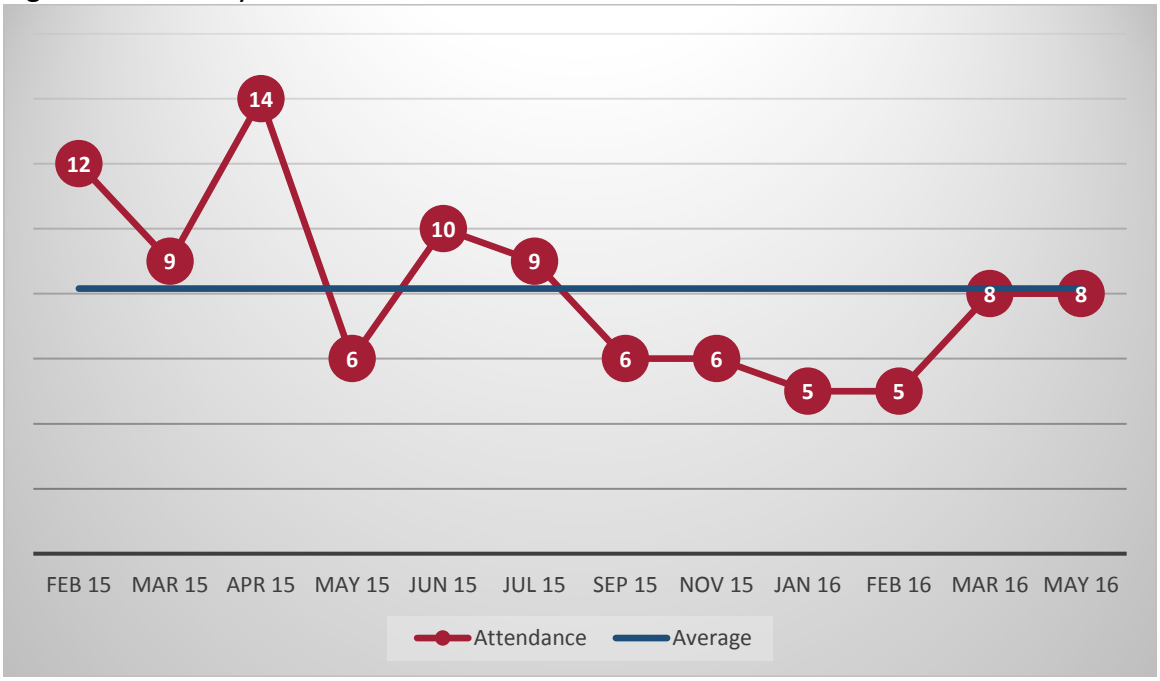


Figure 31. Average Webinar Evaluation Scores by Topic



Attendance for webinars was high in the initial phases of the project with a peak of all 14 Collaborative leaders in April 2015 (Project Development) and tapered off towards the end of the project. Attendance was particularly low in early 2016 as Collaboratives were moving forward with PIP 2. This is detailed in Figure 32 below. A full summary of webinar evaluations can be found in Appendix E.

Figure 32. Monthly Webinar Attendance



Collaborative leaders were brought together for three meetings: at the beginning, midpoint, and end of their contracts. Evaluation of the meetings by Collaborative leaders was positive and many noted they appreciated the support of the program, particularly that ISDH attended all three meetings. Highlights of the evaluation are listed below and a full summary of all evaluations from the three meetings can be found in Appendix F.

- Meeting format, organization, relevance, pace, and length were rated as excellent or good at least 98% of the time.
- Sessions at the initial meeting were rated excellent by 54.4% of participants and as good by 42.2% of participants.
- Sessions at the midpoint meeting were rated excellent by 78% of participants and as good by 22% of participants.
- Sessions at the initial meeting were rated excellent by 62.5% of participants and as good by 27.5% of participants.

Improve specific quality indicators in the participating facilities.

All Collaboratives but one were able to improve the quality indicators selected for PIP 1 and PIP 2. Overall quality outcomes include:

- **Reducing Falls:** SIRC reduced falls by 29% across three facilities, saving $560,000.
- **Reducing Pneumonia:** ECIC reduced pneumonia cases by 16%, saving $14,709.
- **Reducing HAI-related Hospitalizations:** CCC reduced HAI-related hospitalizations by 38%, saving $242,634 in Medicare expense (additional resident and facility savings).
- **Reducing UTIs:** QICNE reduced UTIs by 46% and saved $32,000 across 9 facilities; SWICPI reduced UTIs by 38%; CINHIC reduced UTIs by 24%; SIRC reduced UTIs by 54%, saving $35,070; and NCIQIC reduced UTIs by 51% and saved $15,000.
- **Reducing CNA Turnover:** CCC Reduced CNA turnover rate by 17% saving $42,000; CINHIC reduced CNA turnover rate by 15%; QICNE increased their CNA turnover rate by 5%*, and NCIQIC increased their CNA staff by 16%.
- **Reducing Anti-Psych Medications:** ECIC reduced antipsychotic medication by 43%, SWICPI reduced anti-psych medication by 42%.

Estimated project savings are $1,438,058[4]. For the QICNE PIP on CNA staffing turnover, challenges in data availability led to a one-month baseline for a notoriously variable metric. Additionally, the project timeline coincided with months typically associated with low turnover as the baseline comparison and months typically associated with high turnover as the project outcome. If year-to-year data were available, it is possible this would show a more favorable outcome for this project.

Extrapolated outcomes for statewide impact

As an academic exercise, the CAC Project Team extrapolated these outcomes to statewide numbers for nursing facilities as possible (data on statewide occurrences of pneumonia in nursing facilities and average CNA turnover are not publically available). If these PIPs had been performed across all nursing facilities in Indiana with similar success, the impact to residents would be notably positive. These results are detailed below.

[4] Collaborative PIPs without a reported estimated savings are due to PIP outcomes reported as changes in rates rather than changes in incident count. This left CAC unable to estimate per incident savings.

Reduction of Antipsychotics

In 2014, 6,245 residents were reported to use antipsychotic medications. A PIP with a 43% reduction in rate (ECIC) would result in 2,685 fewer residents receiving antipsychotic medication and a PIP with a 42% reduction in rate (SWICPI) would mean a decrease of 2,623 residents receiving antipsychotic medications.

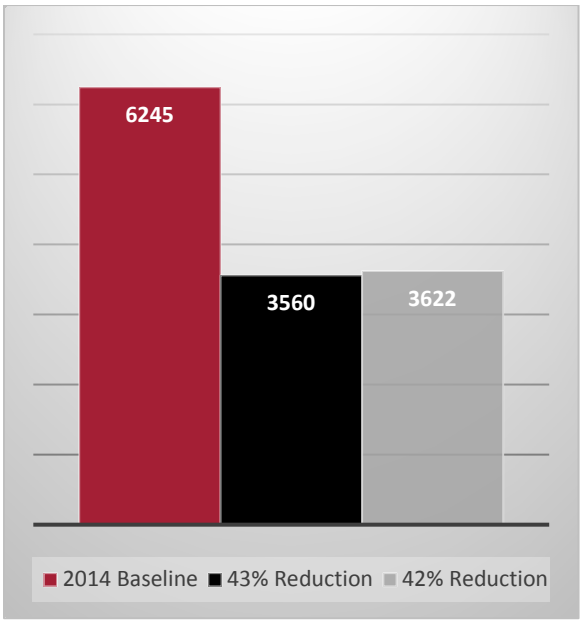


Figure 33. Residents Receiving Antipsychotic Medication PIP

Improving CNA Staffing

As of 7/1/15, the five year average for CNA turnover in Indiana was 91.59%. A PIP with a 17% reduction in turnover (CCC) would bring that average down to 76.02% and a PIP with a 15% reduction in turnover (CINHIC) would mean a state average of 77.85% CNA turnover.

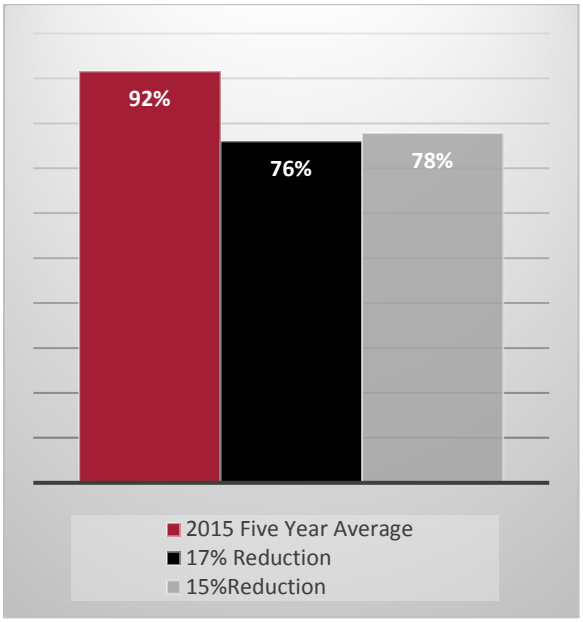
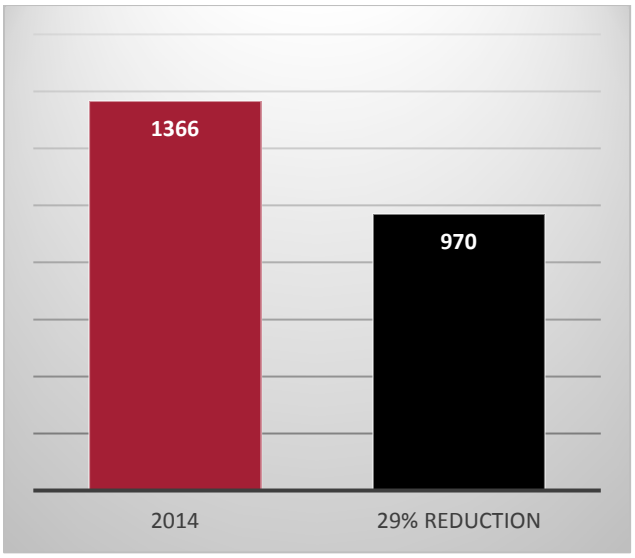


Figure 34. Rate of CNA Turnover

Reduction of Falls

In 2014, 1,366 resident falls were reports. Decreasing fall rate state wide by 29% (SIRC), would result in 400 fewer falls and savings of $53,460,000 annually.

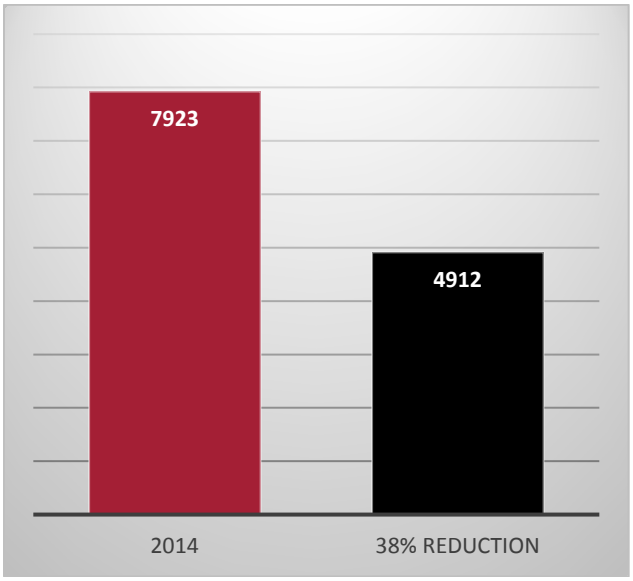
Figure 35. Number of Resident Falls



HAI-Related Hospitalization

In 2014, 7,923 HAI-related hospitalizations were reported for nursing facilities. A 38% decrease (CCC) statewide would result in a reduction of 3,000 fewer hospitalizations annually and a savings of $34,800,000 annually.

Figure 36. HAI-Related Hospitalizations



Reducing Rates of UTIs

In 2014, 17,563 UTIs were reported for nursing facility residents. Decreasing UTIs state wide by 56% (NCIQIC) would lead to fewer 10,000 infections; by 54% (SIRC), 9,500 fewer infections; by 44% (QICNE), 7,700 infections; by 38% (SQICPI), 6,500 infections; and by 24% (CINHIC), decrease by 4,000 infections annually. Averaging these PIPs for a 43% reduction would save $7,660,400 annually.

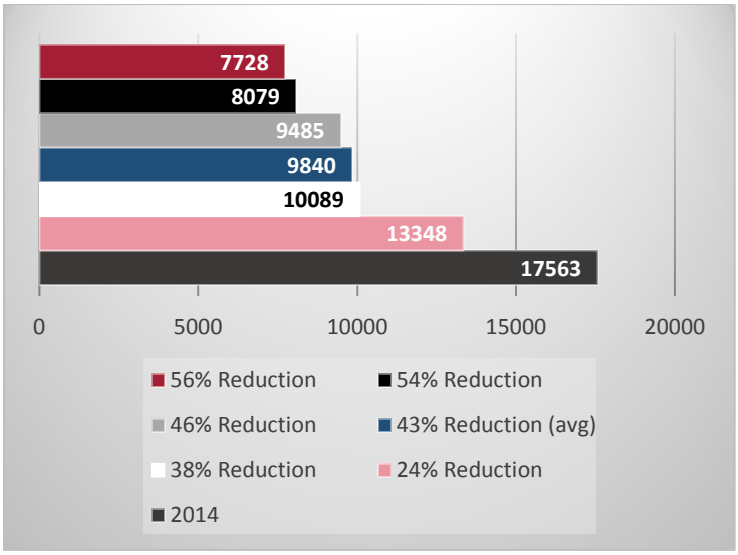


Figure 37. Resident Urinary Tract Infections

Because of the potential for statewide impact, the CAC Project Team created the Regional Collaboration for Quality Improvement in Long-term Care: A Toolkit for Success. This document details the steps for forming an effective and sustainable QAPI Collaborative, and instructions on how to walk through the entire QAPI process, utilizing data, and completing PIPs from the Collaborative perspective. It also includes individual toolkits for each of the topics addressed during this project:

- Reducing Antipsychotic Medication Use
- Improving CNA Staffing
- Reducing Falls
- Reducing HAI-Related Hospitalizations
- Reducing Occurrences of Pneumonia
- Reducing UTIs

Each of these topic specific toolkits includes best practices, successes, and challenges from the original seven Collaboratives as well as resources for a successful PIP. This document will be distributed to current Collaborative members and any new Collaboratives that are formed. It will also be available for download on the ISDH and CAC websites.

RECOMMENDED NEXT STEPS

The CAC Project Team has enjoyed working with ISDH on this initiative and hopes it will continue. Recommended next steps include:

- Distributing the toolkit to existing Collaboratives to support additional QAPI efforts.
- Engaging new organizations to form additional Collaboratives to complete coverage of the state.
- Engaging corporate leadership to support and encourage increased participation.
- Utilizing the toolkits and lessons learned to improve consistency of process between Collaboratives.

APPENDICES

APPENDIX A: ADVISORY GROUP MEMBERS

First Name	Last Name	Title	Org
Nancy	Adams	Director of Quality Improvement	Indiana State Department of Health
Kayleigh	Allen	Project Coordinator	University of Indianapolis Center for Aging & Community
Linda	Altmeyer	Director of Programs	Alzheimer's Association Greater Indiana
Rebecca	Bartle	Director of Regulatory Affairs, HOPE & Representative of Indiana Association of Homes & Services for the Aging (IAHSA) & Indiana Hospice & Palliative Care	Hoosier Owner & Providers for the Elderly (HOPE)
Brenda	Buroker	Survey Manager	Indiana State Department of Health
Ellen	Burton	Senior Projects Manager	University of Indianapolis Center for Aging & Community
Alaina	Butiste	Operational Healthcare Development Coordinator	Miller's Health Systems
Evelyn	Catt	Certified Lean Six Sigma Black Belt	TTAC Consulting, LLC
Lori	Davenport	Director of Regulatory/Clinical Affairs	IHCA
Kara	Dawson	Quality Improvement Advisor	Suburban Health Organization
Lidia	Dubicki	Project Assistant	University of Indianapolis Center for Aging & Community
Sean	Foster	Vice President of Operations	Golden Living
Lisa	Garrett	Indiana Chapter (#76) of The Association for Professionals in Infection Control and Epidemiology (APICIN), Director of Nursing	APIC Indiana, Miller's Merry Manor – Marion

Burton	Garten	Division Director, Division of Program Development & Health Care Quality and Regulatory Commission	Indiana State Department of Health (ISDH)

APPENDIX B: REGIONAL COLLABORATIVE MEMBERS

CCC	Meetings Attended
Ambassador	8
Arbor Trace	15
Area 9	3
Brethren	8
Brookville Healthcare	8
Carolton Manor	5
Forest Park	12
Forest Ridge	1
Golden Living	15
Golden Rule	16
Greenbriar	6
Health Svc Advisory Group	2
Heartland of Eaton	8
Heartland of Greenville	8
Heritage House	2
Heritage House of Connersville	9
Heritage House of New Castle	4
Heritage House of Richmond	4
Hickory Creek of Connersville	4
Hospice Advantage	1
ISDH	14
Koehler Partners	2
Lamp Light Inn	1
Lincoln Centers	2
Miller's Merry Manor of Rushville	1
Pine Knoll	13
QSource	10
Randolph Nursing Home	9
Reid	15
Reid ANC	14
Reid Hospital	1
Rest Haven	2
Rosebud Village	13
Sterling House	1
Springs, The	5

Versailles Health Care Center	2
Village Green	6

CINHIC	Meetings Attended
American Senior Community Bethany Village	5
American Senior Community Bethel Manor	1
American Senior Community Brownsburg Health Care Center	2
American Senior Community Community Nursing & Rehab	4
American Senior Community Fairway Village	3
American Senior Community Harrison Trace	4
American Senior Community Rosewalk Health Care	11
American Senior Community Spring Mill Meadows	1
Briarwood Health& Rehabilitation Center- TLC	7
Cardon	1
Castleton Health Care Center	3
Franklin United Methodist Community	7
Greenhouse Cottages of Carmel	1
HCR Manor Care -Indy South	3
Hendricks	1
Homeview Health & Rehabilitation Center of Franklin	6
Hooverwood	9
ISDH	10
Kindred- Greenfield	2
Koehler Partners	1
LeadingAge Indiana	6
Miller's Merry Manor- Indy East	8
Plainfield Health Care Center	7
Qsource	7
Suburban Health	1
Village of Avon, The	3
Waters of Indianapolis, The	2
Waters of Martinsville, The	2

ECIC	Meetings Attended
Albany Health Care and Rehab Center	11
Aging & In-Home Services	1
Bethel Pointe Health and Rehab	10
Bridgewater Rehabilitation Center	6
CICOA	1

Community Northview Care Center	1
Community Parkview Care Center	5
Edgewater Woods	5
Heart to Heart Hospice	1
IHCA	1
Innovative Pharmacy	1
ISDH	6
Koehler Partner's	1
Liberty Village	4
Middletown Nursing & Rehab Center	11
Miller's Merry Manor- Chesterfield	3
Miller's Merry Manor- Hartford City	9
Miller's Merry Manor-Dunkirk	8
Miller's Merry Manor- Marion	1
Miller's Merry Manor-Middletown	2
Ombudsman	1
Parker Health Care & Rehab Center	10
Persimmon Ridge Rehab Center	10
Pineknoll Rehab Center	9
Qsource	10
Signature Healthcare of Muncie	11
Stonebrooke Rehab Centre & Suites	1
Rolling Meadows	1
TLC Management	9
Twin City Health Care	12
University Nursing Center	2
Water of Muncie, The	4
Water of Yorktown, The	2
Waters of New Castle, The	6
Wesleyan Health Care Center	4
Westminster Village- Muncie	10
Willowbend Living Center	4

NCIQIC	Meetings Attended
Aperion Care at the Arbors at Michigan City	1
Chase Center	1
Community Foundation of St. Joe Co.	1
Golden Living- Mishawaka	3
Golden Living-Elkhart	1

Greencroft	6
Healthwin Specialized Care	5
Hubbard Hill	3
Institute for Excellent Memory Care	1
ISDH	3
Ironwood Health and Rehabilitation Center	2
Koehler Partners	1
National Association Directors of Nursing Administration/Long Term Care (NADONA)	1
Madison Health Care	1
Mason Health and Rehabilitation	1
MHIN	1
Miller's Merry Manor- Culver	3
Miller's Merry Manor- New Carlisle	4
Miller's Merry Manor- Warsaw	2
Pilgrim Manor	3
Qsource	2
REAL Services	2
Sanctuary at St. Paul's	1
Select Health Network	1
Signature Health Care-Bremen	1
Signature Health Care- South Bend	3
Sprenger at Mishawaka	3
Warsaw Meadows Care Center	1
Yorktown Manor-Chesterton	1

QICNE	Meetings Attended
Auburn Village	1
Adams Woodcrest	2
Adams-Heritage	3
AIHS	16
Ashton Creek	8
Atom Alliance	1
Avalon Village	2
Bethlehem Woods	10
Betz Nursing	12
Bluffton Healthcare	2
Byron	15
Canterbury Nursing and Rehab	11

Cedars, The	4
Christian Care	8
Coventry Meadows	12
Englewood	5
Glenbrook	9
Golden Years	9
ISDH	7
Heritage of Fort Wayne, The	8
Heritage Park	14
Heritage Pointe	12
Lakeland	1
Life Care Center	1
Markle Health	12
Miller's Merry Manor- Columbia City	1
Miller's Merry Manor- Dekalb	1
Miller's Merry Manor Huntington	10
Miller's Merry Manor- Garrett	10
Miller's Merry Manor- Fort Wayne	8
Miller's Merry Manor- LaGrange	1
Miller's Merry Manor- Regional	3
Ossian Health	4
Parkview CCC	8
QSource	12
Riverbend	3
Signature Healthcare	7
Summit City	1
Swiss Village	15
TLC Corporation	1
Visiting Nurse	1
Woodview- A Waters Community	5

SIRC	Meetings Attended
Bedford Garden Villa	7
Bell Trace	7
Bloomington Garden Villa	6
Bloomington Nursing & Rehab	1
Brown County Health and Living	8
Garden Villa	5
Generations	3

Glenburn	5
Golden Living Center- Bloomington	4
Good Samaritan Society	8
Good Samaritan Shakamak	5
Hearthstone Health Campus	3
ISDH	6
Koehler Partners	1
Meadowood	5
Monroe Place	3
Paoli	1
Qsource	6

SWICPI	Meetings Attended
Amber Manor	9
Bethel Manor	18
Bridgepointe	8
CPSC IND/KY	11
Cathedral	10
Cypress Grove	5
Freelandville Home	15
Generations	2
Gentiva	2
Gibson General Skilled Nursing	18
Good Sam- Evansville	16
Good Sam Home- Oakland	2
Hamilton Pointe	9
Heritage Center	9
Hildegard	1
Holiday Healthcare	2
ISDH	13
Ketcham Memorial	4
Koehler Partners	1
MSA Hospice	2
Mt Vernon Nursing	4
Northwood Retirement	11
New Harmonie	3
Newburgh Healthcare	2
Oak Village	1
Oasis Dementia	1

Oakwood	1
ASC- Park Terrage Village	1
Pine Haven	2
Qsource	15
River Oaks	14
River Pointe	9
Scenic Hills	6
Signature Health Care	12
Southern Care	2
St Charles	1
SWIRCA AAA	4
Transcendent Boon	2
Transcendent- Owensville	3
University Nursing	7
USI	13
Waters of Huntingburg, The	1
Vibrant Living	1
Waters of Princeton, The	11
Westpark Rehab	1
West River	5
Williams Bros Rx	6
Woodlands Golden Living	1
Woodmont	2

APPENDIX C: COLLABORATIVE LEADERSHIP TEAM MEETING AGENDAS

Kickoff

University of Indianapolis, Center for Aging & Community

Day 1

Thursday, January 22, 2015

AGENDA

10:00 - 10:20 am	Welcome	Terry Whitson Ellen Burton
10:20 am -12:00 pm	Collaboration Building	Koehler Partners
12:00 – 1:00 pm	Lunch	
1:00 – 5:00 pm	QAPI I – Overview, Designing a Project (*includes hourly breaks)*	Evelyn Catt
5:00 - 7:30 pm	For those interested, join us for dinner in historic Fountain Square directly following the training!	

Day 2

Friday, January 23, 2015

AGENDA

8:00 - 10:30 am	QAPI II – Implementing a QAPI project (includes hourly breaks)	Evelyn Catt
10:30 am - 10:45 am	Break	
10:45 am -12:00 pm	Needs Assessment/Asset Mapping	Koehler Partners
12:00 – 1:00 pm	Lunch	
1:00 – 2:00 pm	Data and Evaluation	Koehler Partners
2:00 – 3:00 pm	Loose Ends & Grant Logistics	Ellen Burton

Regional Healthcare Quality Improvement Collaboratives
Mid-Point Meeting

AGENDA

9:30-9:45	Welcome	Ellen Burton
9:45-10:45	Nursing Home 101 A discussion of today's nursing home environment	Russ Evans
10:45-11:45	Regional Recap Updates from each collaborative and a discussion of successes and challenges	Ellen Burton Collaborative Leaders
11:45-12:15	LUNCH	
12:15 – 12:45	ISDH and Federal Updates	Terry Whitson

12:45-1:45	QAPI 102 Pt. 1 QAPI process refresher	Ellen Burton
1:45-2:45	QAPI 102 Pt. 2 Making QAPI relevant for all departments and staff	Kathy Koehler
3:00-5:00	Looking forward to Project 2 Updates from Qsource Project 2 Discussion Open work time with onsite technical assistance	Kara Dawson Ellen Burton

Project Closeout Meeting

University of Indianapolis, Center for Aging & Community

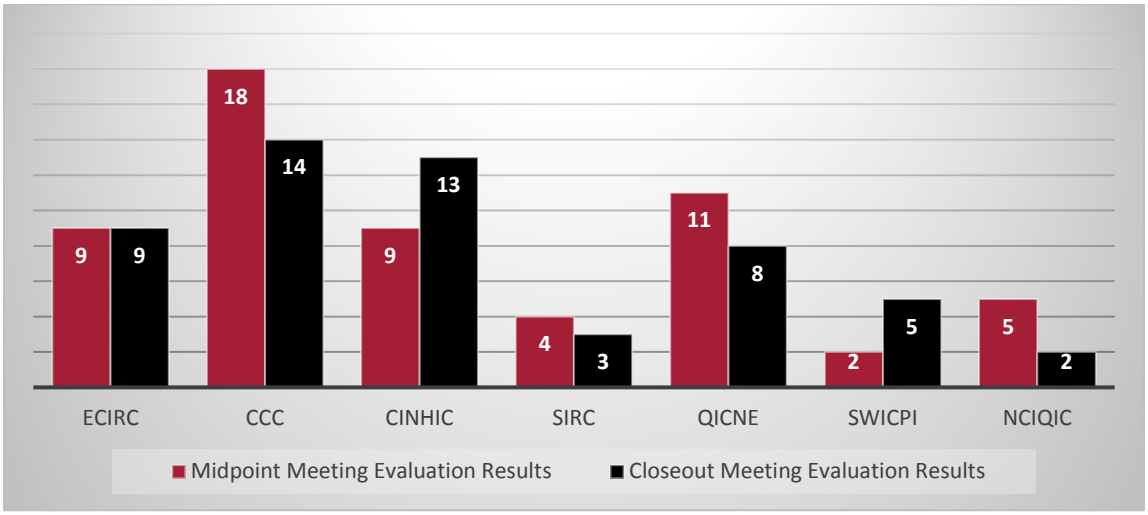
Thursday, June 30, 2016

AGENDA

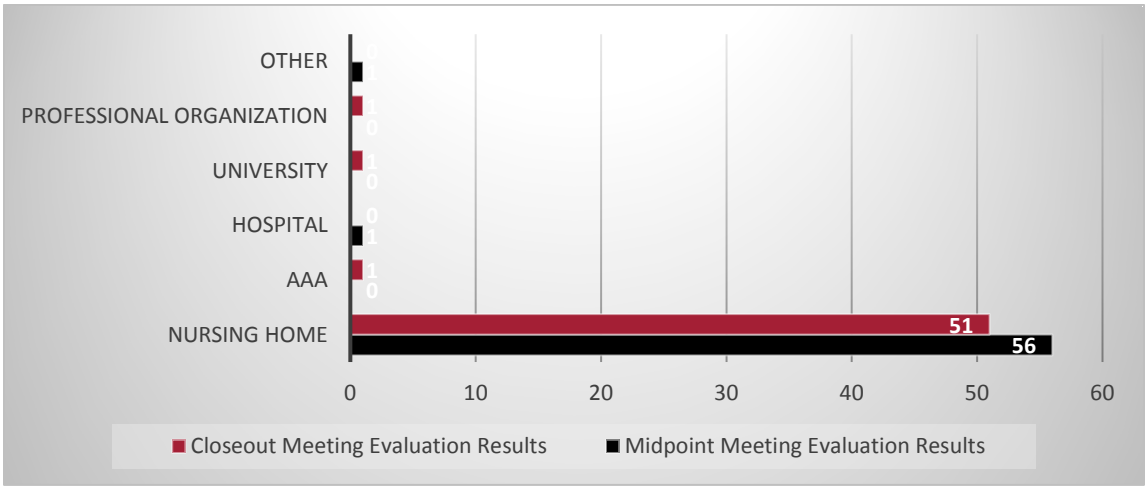
10:00 - 10:15 am	Welcome	Ellen Burton
10:15 am -11:30 am	Lessons Learned Focus Groups • Project 2 • Regional Collaboratives Structure/ Process	Koehler Partners & Ellen Burton
11:30 am – 12:00 pm	Engagement & Membership	Ellen Burton & ISDH
12:00 – 1:00 pm	LUNCH	
1:00 – 1:45 pm	Sustaining Activity through the Gap	Ellen Burton
2:00 – 2:45 pm	Collaborative Toolkit • Promising Practices • Documentation of Process • Sample Documents (reporting forms, templates, meeting agendas, flyers, newsletters, etc.)	Ellen Burton & Koehler Partners
2:45 – 3:00 pm	Administrative Wrap-up & Next Steps	Ellen Burton

APPENDIX D: MID AND ENDPOINT SURVEY RESULTS

1. In which collaborative are you participating?

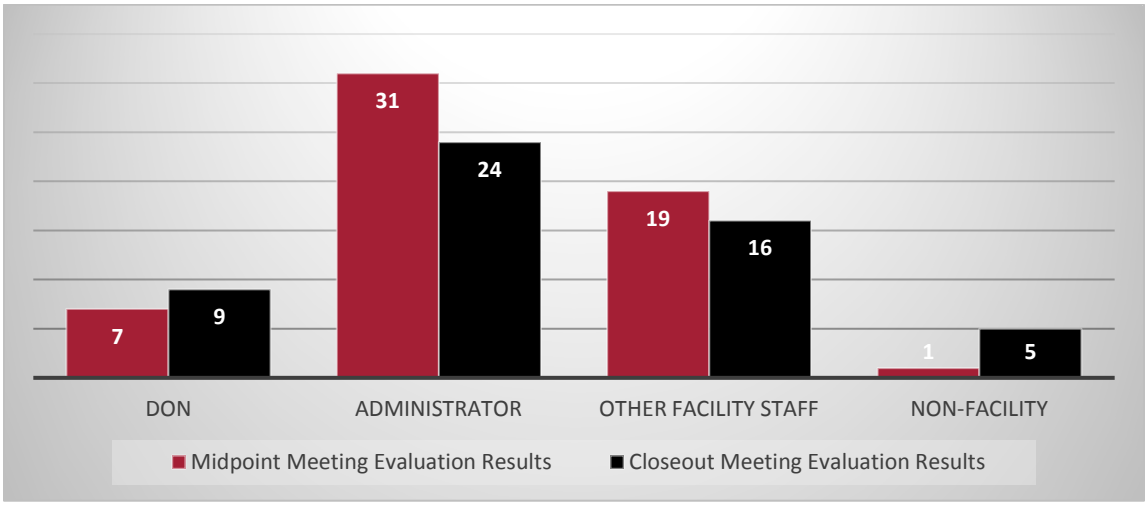


2. For what type of organization do you work?



Other: CCRC

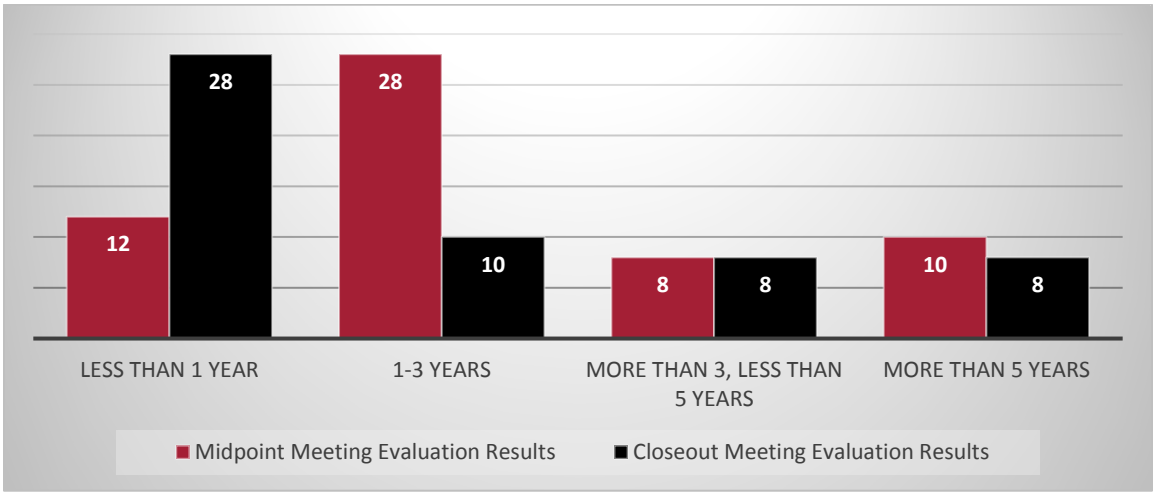
3. What is your role?



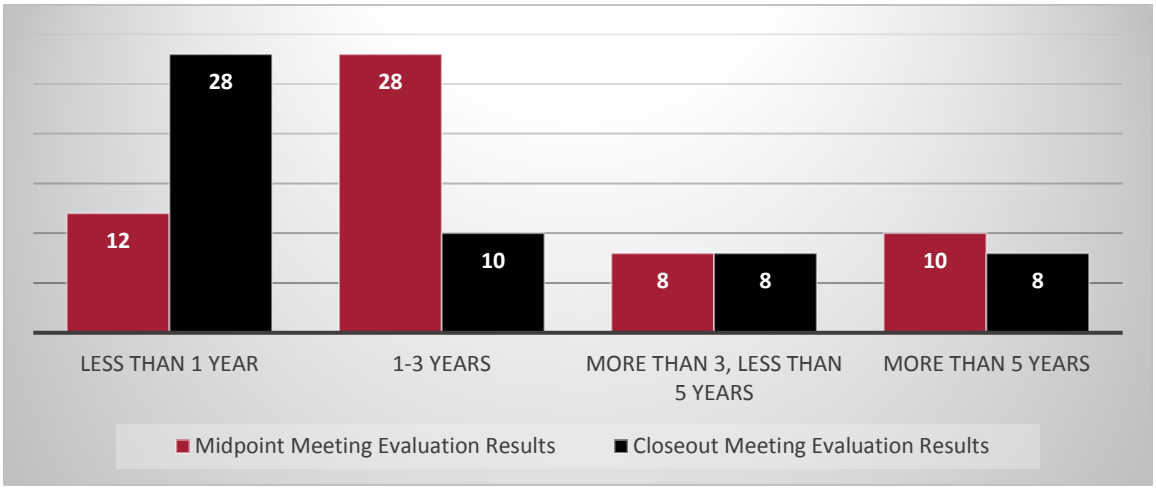
Other facility Staff/ Non-Facility:

- RN Risk Manager
- Corporate QAPI Director
- ADON (4)
- Executive Director
- RN Quality Assurance Nurse
- Director of sales and admissions (8)
- SDC unit manager,
- Social worker/admissions
- Director of Staff Development(2)
- Clinical Education Coordinator
- Customer Care Coordinator
- Infection Control/In-Service Director (2)
- MDS/Marketing
- Director of Clinical Education
- Safety and Wellness
- Director of social services
- Director of QAPI (3)

4. How long have you been in this field of work?

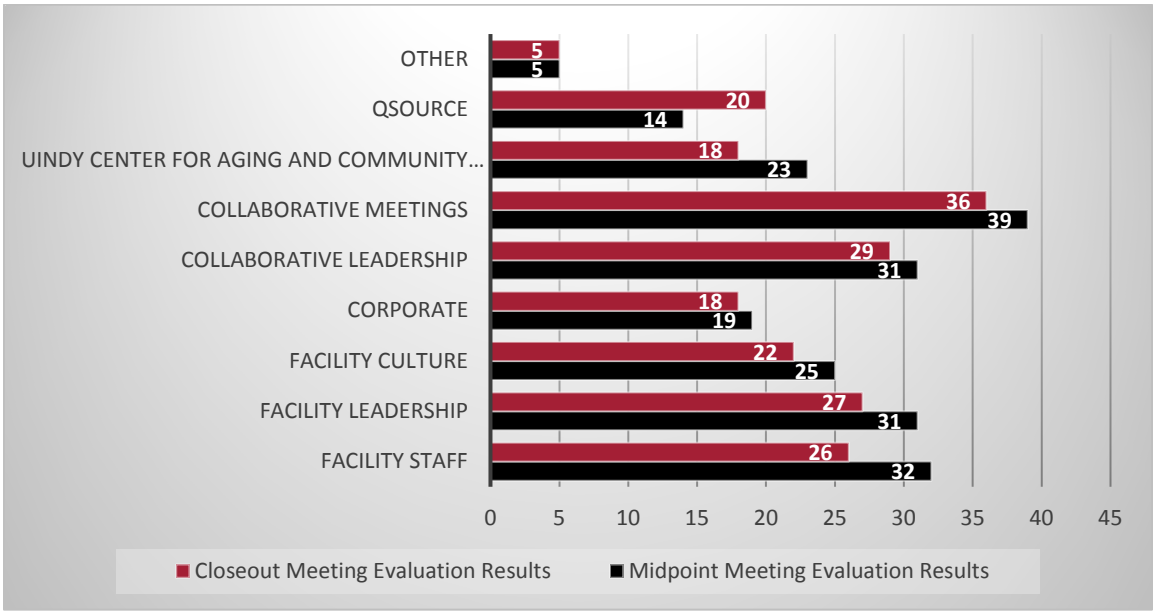


5. How long have you been working with QAPI?



6. What has worked in learning the QAPI process?
    - Collaborative meetings and support
    - Reading materials
    - Group trainings
    - CAC Technical Assistance
    - Resources from Qsource
    - Root cause analysis

7. What current resources have helped this learning process be successful?



Other:

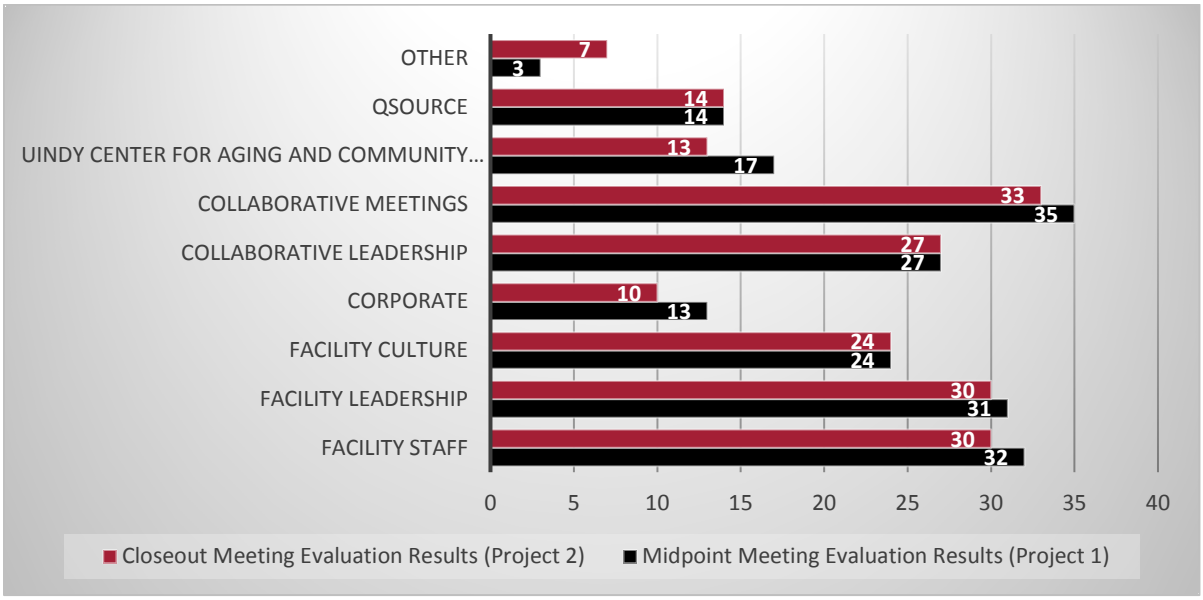
- Reading materials
- Group trainings
- Staff discussion/involvement
- Personal research
- CMS and other internet services
- Outside seminars
- Leading Age, ISDH

8. What has worked with QAPI Project 1?
    - Group collaborations
    - Staff education
    - Collaboration with other facilities
    - Action Plans
    - Facility staff participation

9. What has worked with QAPI Project 2?
    - Monthly meetings
    - Collaboration with other facility leaders
    - Data input and analysis assistance
    - Stop and watch program

- Reporting

10. What current resources have helped QAPI Project 1 & 2 be successful?



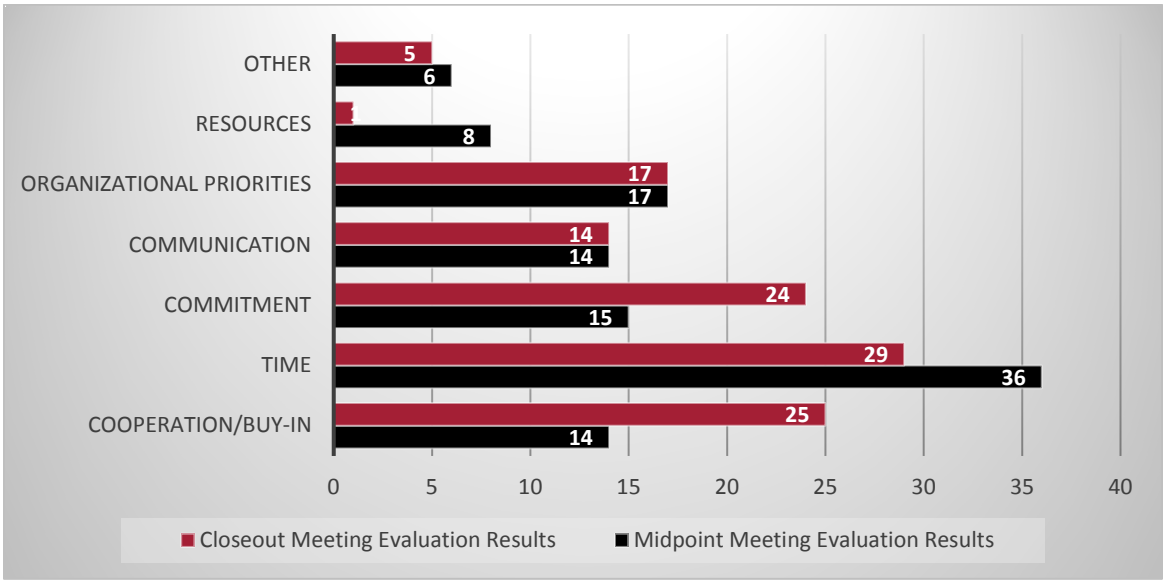
Other:

- lean six sigma training
- Leading Age, ISDH
- CMS

11. Are there available options or resources that haven't been tried or utilized?

- HR and facility management teams to help with morale and hiring
- Guest speakers

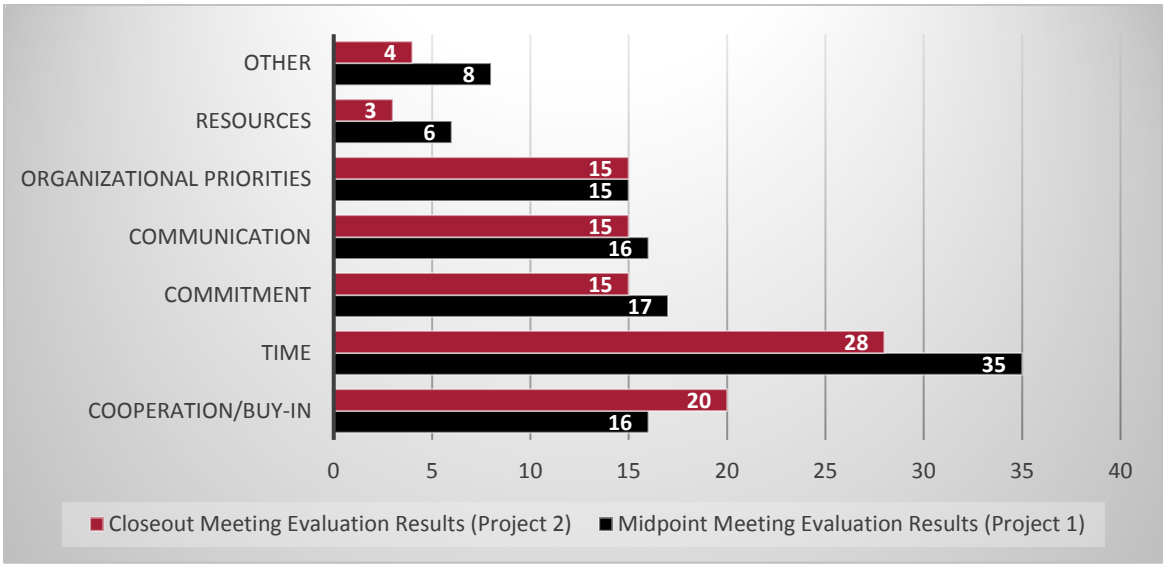
12. What challenge(s) did you face in implementing the QAPI process?



Other:

- Project leader not keeping up with work
- Issues within the group
- Changing long standing culture
- staff buy in
- The amount of changes in Healthcare and ACO's/ Value Based Purchasing
- Time Management
- Adequate staffing

13. What challenge(s) did you encounter during the QAPI Project 1 & 2 Process?



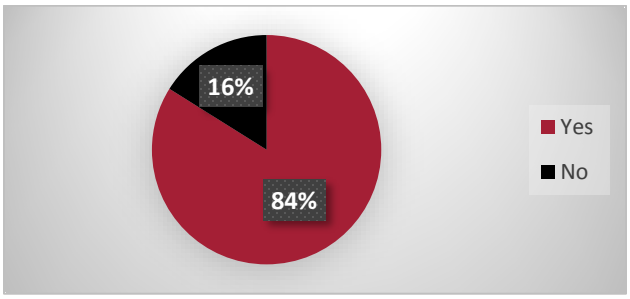
Other:

- Project leader not keeping up with work
- Challenges within the group
- Changing long standing culture
- finding an infection to monitor that worked with everyone's buildings
- Subject matter was not a relevant facility issue

14. What did collaborative leadership do to assist you with this challenge(s)? Did you find this to be helpful?

- Initiating and sharing ideas
- Held everyone accountable
- Guided conversation
- Provided resources
- Helped with data collection
- Suggestive problem solving
- Feedback and opportunity to share
- Shared best practices at the facility level

15. Were you able to overcome the challenge?



16. How were you able to overcome this challenge?

- Improving communication
- Prioritization
- Time management
- Working together
- Reinforcement with staff
- Staff engagement

17. What prevented you from overcoming this challenge?

- Too many conflicting responsibilities in and out of the facility
- Not enough time
- Staffing issues
- Lack of cooperation
- Personal schedule conflicts
- Representative not doing work
- Not enough buy-in
- Facility culture

18. What are you doing that you would like to continue doing?

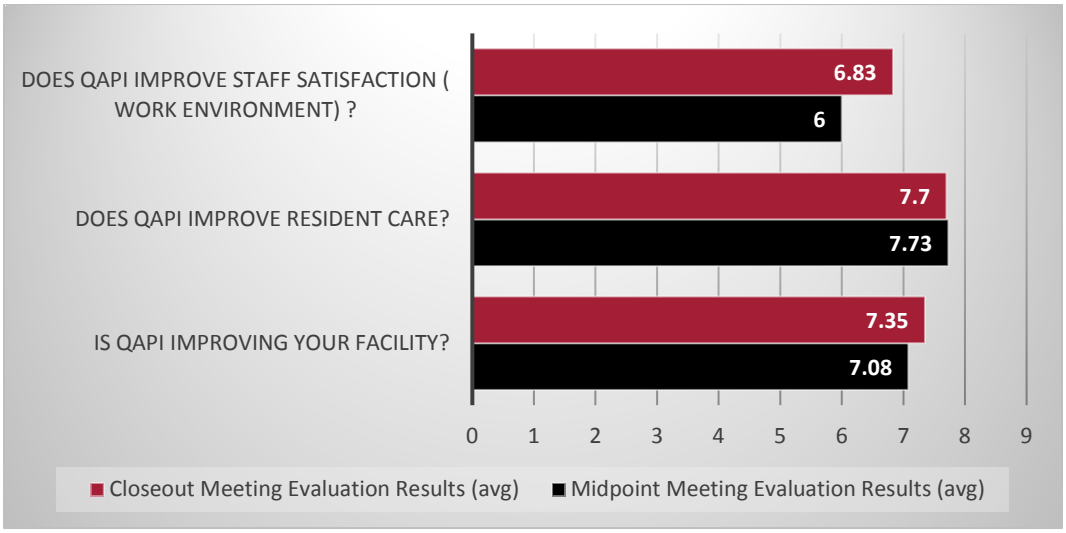
- Regular meetings
- Involving staff
- Current interventions
- Data collection and analysis
- Networking
- Stop and Watch
- Continuous learning

19. Is there anything that can be removed or eliminated from the process?
    - State survey process

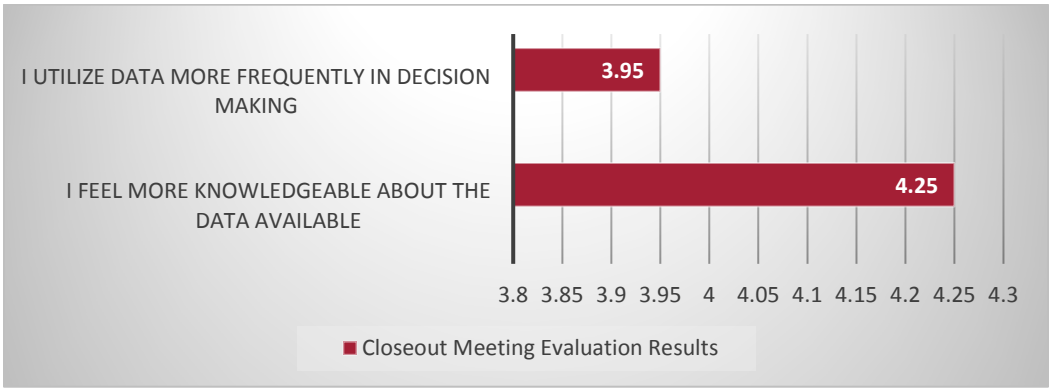
20. What could the collaborative (collaborative, peer members, UIndy Center for Aging and Community, etc.) do to make the next project go more smoothly?
    - More resource sharing
    - More speakers
    - More brainstorming sessions
    - Longer time frame
    - Offer different times for meetings
    - Offer more educational opportunities for front line staff
    - Allow facilities to work on issues specific to their needs

21. Do you have any final comments or suggestions for improving the overall process?
    - It was a very organized project
    - CAC was organized, dedicated and well-educated approach to project management
    - The project was very successful and the facility still uses the processes that were implemented from the experience

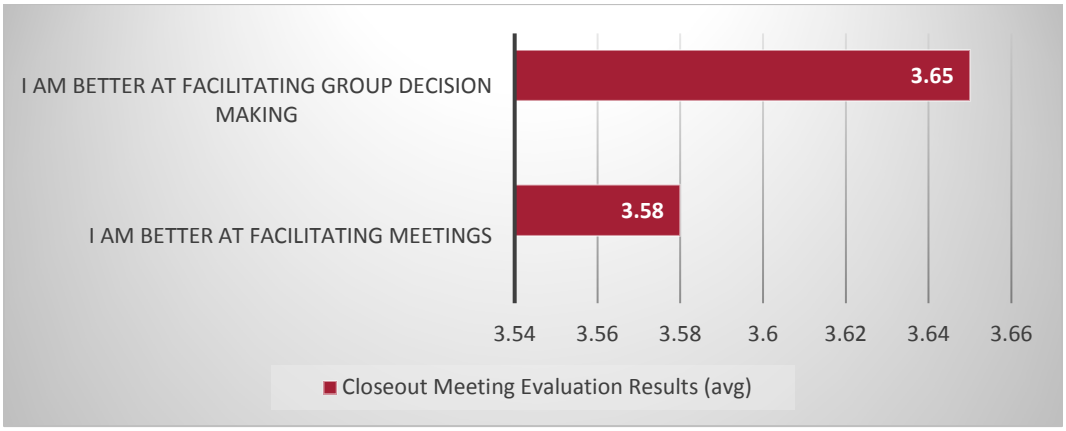
22. QAPI Impact- Please share with us your impressions of QAPI within your collaborative



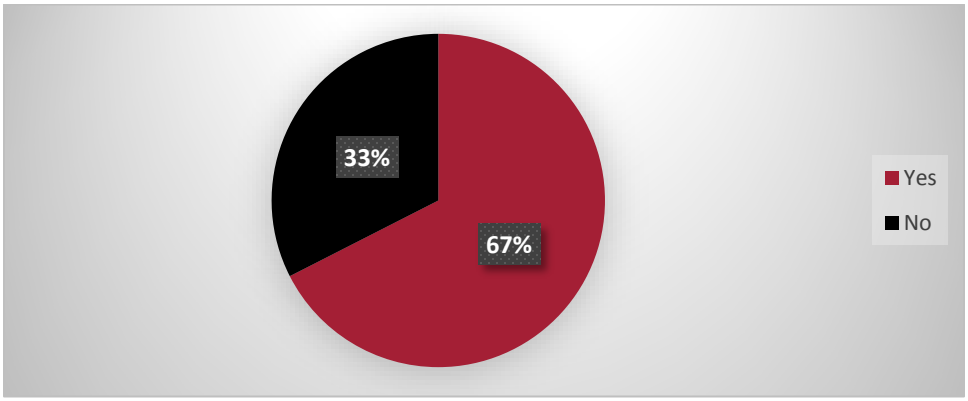
23. QAPI Impact – Please share with us your impressions of QAPI within your collaborative



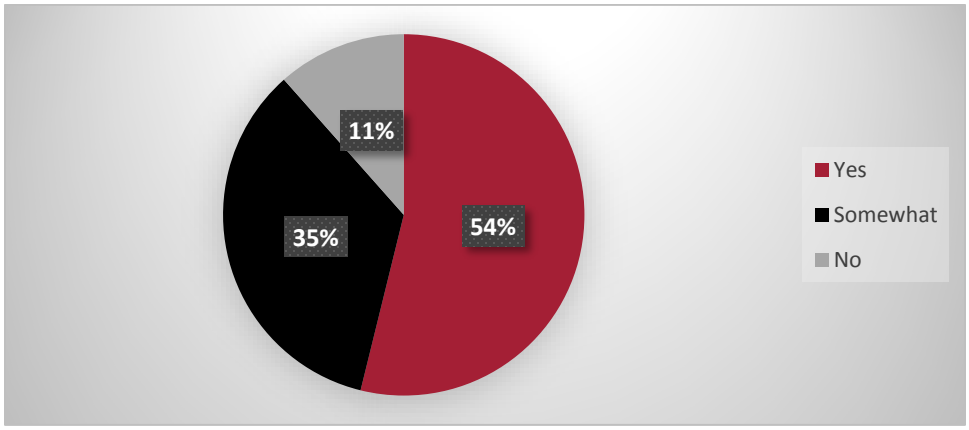
24. QAPI Impact – Please share with us your impressions of QAPI within your collaborative



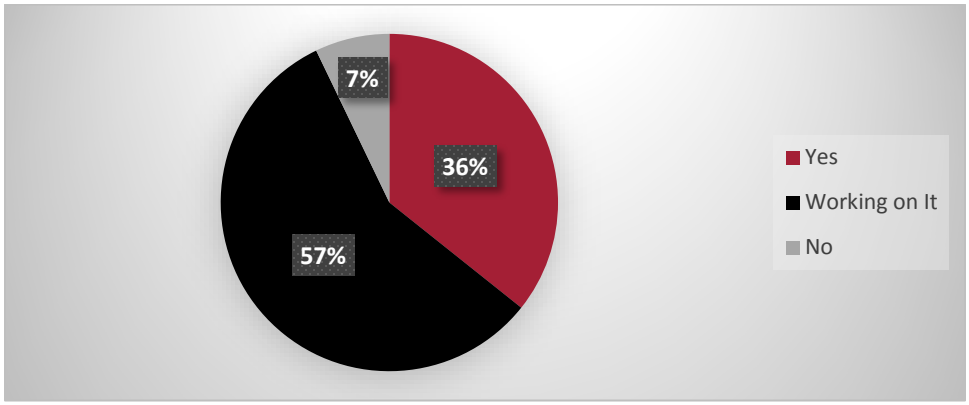
25. Did you have a facility QAPI Plan prior to your participation in the collaborative?



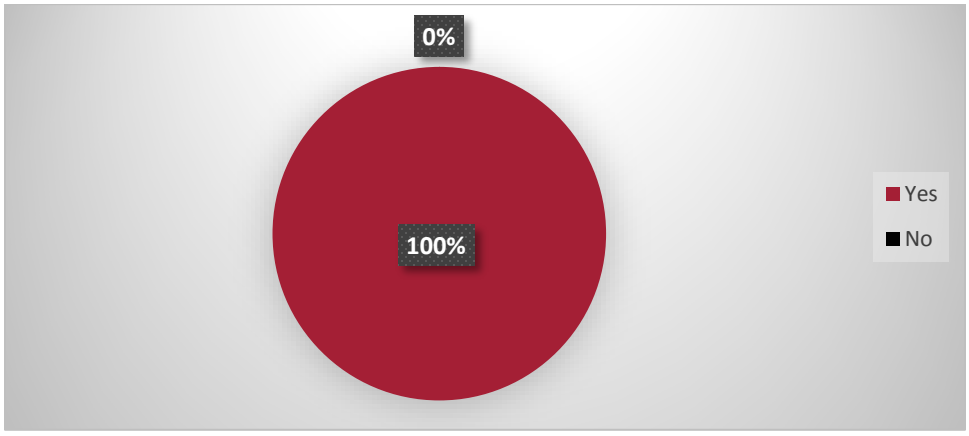
26. (If yes) Have you updated or improved your facility QAPI Plan as part of your participation?



27. (If No) Do you have a facility QAPI Plan?



28. Was participating in the collaborative helpful in developing your facility QAPI Plan?



APPENDIX E: EVALUATION SUMMARY TECHNICAL ASSISTANCE WEBINARS

	Please rate the helpfulness of this TA session	Was it helpful to share your experiences?	Was the information provided clear?	Was the amount of information appropriate?	Were your questions addressed?	Was open discussion with other Collaborative helpful?	Average
Feb 15 Recruitment & Engagement (n=12)	4.62	4.37	4.62	4.62	4.50	4.62	4.56
Mar 15 Communication and Governance (n=9)	4.33	4.50	5.00	4.50	4.17	4.50	4.50
Apr 15 Project Development (n=14)	4.66	3.66	5.00	4.66	5.00	4.66	4.61
May 15 Project Development (n=6)	4.50	4.00	4.00	4.50	5.00	5.00	4.50
Jun 15 Sustaining Engagement (n=10)	4.14	4.14	4.57	4.28	4.28	4.14	4.26
Jul 15 Project Close Out (n=9)	4.75	4.50	5.00	5.00	5.00	5.00	4.86
Sep 15 Project Sustainability (n=6)	4.00	4.00	5.00	4.66	5.00	4.66	4.52
Nov 15 PIP 1 Close Out PIP 2 Start Up (n=6)	5.00	4.25	4.75	4.75	4.50	4.75	4.65
Jan 16 Data Reporting Close Out (n=5)	4.66	3.66	5.00	5.00	4.66	3.66	4.44
Feb 16 Making QAPI Relevant to all Depts (n=5)	4.50	4.25	4.75	4.75	4.25	4.50	4.5
Mar 16 Lessons Learned from IP 1 (n=8)	5.00	5.00	5.00	5.00	5.00	5.00	5.00
May 16 Sustainability (n=8)	4.30	4.30	4.66	4.66	4.66	4.66	4.50
Average	4.51	4.26	4.77	4.75	4.57	4.56	4.57

Notable Comments

- "It was a lot to pack in without a real opportunity for extended discussion."
- "There are no improvements in my opinion. It was incredibly helpful to hear a reminder on our role as project leads :-) And the overarching goal of the Collaboratives is learning the QAPI process."
- "I would like to see CAC drill down via its lead agencies to identify and recognize the corporations that encourage collaborative participation. I think the regional level managers who endorse and support need feedback from CAC and CAC needs to help ensure that corporate offices are being informed when there are positive data results. I suggest this because it is obvious that corporate support results in attendance and participation. Trilogy is an example of one that does encourage. Several do not."
- "Just more on continuity of participation. I still feel that at least our Collaborative is missing some components that could make it more dynamic."

APPENDIX F: COLLABORATIVE LEADERSHIP TEAM MEETINGS SUMMARY OF EVALUATIONS

Regional Healthcare Quality Improvement Collaborative

1. **Please Provide your overall perception of the Regional Healthcare Quality Improvement Collaboratives meeting**

Participants overall perception (Summary) n=35		
Format/ Organization	**100%**	Excellent or Good
Relevance of information	**100%**	Excellent or Good
Amount of information	**100%**	Excellent or Good
Pace of sessions	**100%**	Excellent or Good
Length of sessions	**98%**	Excellent or Good
Comfort of classroom	**95%**	Excellent or Good

Please share any additional information about your overall perceptions.

- Very organized and well thought out
- Like the information and sharing – hope we get to use it in phase 2
- Too cold
- Wonderful to hear where all of the other collaboratives are in their processes
- Good timing in grant process
- A little too much information
- Nice pace
- Received a great understanding of the collaborative grant and QAPI
- The pace of the QAPI sections was a bit slow. Made it too long. The rest was perfect.
- Very helpful training. Great practical info! (2)
- Very well paced (2) and having plenty of breaks.
- Some logistics info at the start vs. the end might have been helpful (2).

2. **Please provide your overall perception of the following sessions during the Regional Healthcare Quality Improvement Collaboratives meeting.**

Participants average perception of sessions (Summary) n=35				
	Excellent	**Good**	**Fair**	**Poor**
Kick-Off Meeting	**54.4%**	**42.2%**	**3.6%**	**0%**
Mid-Point Meeting	**78%**	**22%**	**0%**	**0%**
Close-Out Meeting	**62.5%**	**27.5%**	**2.5%**	**0%**

Please share any additional information about the sessions.

- Extremely helpful to those without clinician background or LTC work experience
- Incredibly helpful. Well done! Awesome job with presentation of information! (3)
- I am impressed with the enthusiasm and professionalism all the presenters portrayed. A smart, friendly, sharing group.
- Everyone did a great job – including Qsource staff. Appreciated everyone's expertise.
- Evelyn Catt was great fun and a real pro! Bravo – Evelyn Catt! (2)
- Nothing bored me. My attention was held and I found everything to be meaningful
- Very helpful to have open discussion
- Excited to be a part of the plans ISDH has

3. **Please choose the answer that best reflects your opinion**

Participants views regarding usefulness provided by the workshop (Summary) n=35	
• The information presented will be useful for planning collaborative projects.	**100%** Strongly Agree or Agree
• I feel well prepared to begin the regional collaborative project.	**95%** Strongly Agree or Agree

Please share any additional information.

- Need to access report and online tools to get a better understanding of the tools available
- Challenges for the next project in terms of leadership
- Great tools and tips
- Have a lot to process to make sure they are on track with the transitions

- A little info overload to get a handle on – but good tools to take and use.
- Comfort level is much improved. I feel comfortable that I can direct questions to Ellen Burton and that she will answer or forward them.
- I feel very supported by all organizations to continue these projects

4. Please provide any other general comments, questions or concerns about the Regional Healthcare Quality Improvement Collaboratives meeting.

- Good discussions
- Feel that the support needed to continue the collaborative
- Enjoyed learning about advancing excellence
- Liked that ISDH attended
- The effort to keep the collaboratives working seems to be working
- Part of me thinks 'I wish I knew all of this 2 years ago' but the rest of me knows the only way to really learn it was to do the phase
- Really appreciated how many people reached out to us.
- Very good to meet others. This was a well prepared training. Synthesis and implementation will still be a challenge.