WHITE PAPER

Leveraging Quality Assurance and Performance Improvement for High Reliability in Aging Services

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WHITE PAPER

Leveraging Quality Assurance and Performance Improvement for High Reliability in Aging Services

Under the Affordable Care Act, long-term care facilities that participate in Medicare and Medicaid have been required since 2010 to establish a quality assurance and performance improvement (QAPI) program to identify opportunities for improvement, develop and implement interventions or countermeasures, and continuously monitor the effectiveness and sustainability of the improvements (42 CFR § 483.75). The Centers for Medicare and Medicaid Services (CMS) have since issued a final rule and a plethora of tools and resources to help aging services organizations develop QAPI programs, but many still struggle to navigate the ever-changing situation regarding regulations, resident and family needs, and the environmental landscape. Fortunately, QAPI programs, if done correctly, can stand the test of time by providing a framework and infrastructure needed to sustain continuous quality improvement (CQI) through the following key features:

- Leveraging high-reliability organization (HRO) principles to sustain and optimize quality improvement initiatives
- Using quality and safety data to develop and prioritize performance improvement projects (PIPs)
- Supporting person-centered care principles by improving resident health outcomes, quality of life, and resident and worker safety
- Engaging residents, their families, and staff to inform PIPs, evaluate progress, and provide feedback
- Applying analysis frameworks—such as root cause analysis (RCA)—to identify sources of problems and develop action plans for CQI

This white paper describes QAPI basics, explores how to maximize QAPI programs to meet regulatory requirements; how to improve the quality and safety of care; and how collaboration with patient safety organizations can help aging services organizations achieve their QAPI goals.

QAPI Basics

What Is QAPI?

QAPI merges two different but complementary approaches to ensuring patient safety and high-quality care: quality assurance (QA) and performance improvement (PI). At its core, QAPI is the combined effort of assessing an organization's ability to meet established standards of resident care and safety (i.e., care measures), identifying reasons why the organization fails to meet said standards (i.e., root causes), and developing action plans to eliminate process failures and implement changes for success (i.e., PIPs). These concepts support an organization's CQI program—the umbrella program for all quality initiatives. **See Table 1.** **Overview of Quality Efforts** for a comparative overview of quality efforts.

Table 1. Overview of Quality Efforts

Acronym	CQI	QAA	QA	PI	QAPI
Meaning	Continuous Quality Improvement	Quality Assurance and Assessment	Quality Assurance	Performance Improvement	Quality Assurance and Performance Improvement
Definition	CQI is a deliberate, defined process which is focused on activities that are responsive to community needs and improving population health. It is a continuous and ongoing effort to achieve measurable improvements in the efficiency, effectiveness, performance, accountability, outcomes, and other indicators of quality for state and local program levels.	QAA is a management process that is ongoing, multi-level, and facility wide. It encompasses all managerial, administrative, clinical, and environmental services, as well as the performance of outside (contracted or arranged) providers and suppliers of care and services.	QA is the specification of standards for quality of care, service and outcomes, and systems throughout the facility for assuring that care is maintained at acceptable levels in relation to those standards. QA is ongoing and both anticipatory and retrospective in its efforts to identify how the organization is performing, including where and why facility performance is at risk or has failed to meet standards.	PI (also called Quality Improvement - QI) is the continuous study and improvement of processes with the intent to improve services or outcomes, and to prevent or decrease the likelihood of problems, by identifying opportunities for improvement and testing new approaches to fix underlying causes of persistent/ systemic problems or barriers to improvement. PI in nursing homes aims to improve facility processes involved in care delivery and enhanced resident quality of life.	QAPI is the coordinated application of two mutually reinforcing aspects of a quality management system: Quality Assurance (QA) and Performance Improvement (PI). QAPI takes a systematic, interdisciplinary, comprehensive, and data-driven approach to maintaining and improving safety and quality in nursing homes while involving residents, their families, and all nursing home caregivers in practical and creative problem solving.

Sources: Centers for Medicare and Medicaid Services (CMS): Appendix PP—guidance to surveyors for long term care facilities. State Operations Manual. 2017 Nov 22 [cited 2022 Jan 31]; Pathway Health Services, Inc. QA vs. QAA vs. QAPI: History and Background [resource tool]. 2017 [cited 2022 Mar 15]; Minnesota Department of Health. Continuous Quality Improvement. [cited 2022 Mar 15].

In its regulatory requirements for nursing care centers, CMS identifies five elements of QAPI (CMS "QAPI"):

1. **Design and Scope.** QAPI programs must cover the full range of services and care provided; be comprehensive in addressing resident clinical care, quality of life, and personal choice; and be ongoing.
2. **Governance and Leadership.** Organizations must embody a just culture that values the input of facility staff, residents, and their families and/or representatives; prioritizes QAPI efforts as mission-critical; and ensures such efforts are equipped with adequate resources, accountability, and sustainability.
3. **Feedback, Data Systems, and Monitoring.** QAPI principles take a data-driven approach to improving safety, and that data should come from multiple sources such as safety culture surveys; feedback from staff, residents, and their families; and adverse event reporting trends, among others.
4. **Performance Improvement Projects (PIPs).** Although each project should be concentrated on one area of improvement to best address root causes, organizations can set a plan to engage in multiple PIPs over time as resources allow.
5. **Systematic Analysis and Systemic Action.** Participating in formal, systematic analyses—RCA and failure mode and effects analysis (FMEA)—allows organizations to dive deep into areas of concern while creating a blueprint for improvement initiatives. From identifying an issue/problem, contributing factors, and its root causes to implementing changes, a comprehensive action plan can lay the foundation for CQI.

How CQI and QAPI Align with HRO Principles

HRO principles can be considered an advanced version of CQI with an overarching focus on risk management that extends to the performance of an entire organization. They focus on high-risk, high-volume areas in need of improvement and use the following five principles to drive success (Veazie et al.):

1. Sensitivity to operations: a heightened awareness of the state of relevant systems and processes
2. Reluctance to simplify: the acceptance that work is complex, with the potential to fail in new and unexpected ways
3. Preoccupation with failure: to view near misses as opportunities to improve, rather than as a measure of success
4. Deference to expertise: to value insights from staff with the most pertinent safety knowledge over those with greater seniority
5. Practicing resilience: to prioritize emergency training for many unlikely, but possible, system failures

Aging services organizations can use these HRO principles to help guide their CQI efforts, inform their QAPI programs, and facilitate PIPs, all of which can be done while using systems thinking.

While there is no simplistic approach to harm or adverse event prevention, the aging services operational environment is a complex system with a range of services that vary in scope and design—an intricate and personal care delivery system plagued with the potential for human error with undesirable outcomes. However, a systems thinking approach allows facilities to focus on processes within the system (i.e., the organization at large) to identify, analyze, mitigate, and track process improvement measures.

QAPI: Not Just for Skilled Nursing

Beyond the nursing home setting, CMS maintains conditions of participation (CoPs) for QAPI programs in other aging services care settings, including hospice, home health, and programs of all-inclusive care for the elderly (PACE). Many state governments are also adopting requirements for providers to include CQI programs for care settings that do not participate in Medicare and Medicaid, such as assisted living, and in some instances, states have even chosen to embrace the QAPI approach espoused by CMS. For those states that simply require a CQI program but do not define what program an assisted living provider should use, a QAPI approach may meet the requirement.

For organizations that have multiple service lines on their campus (e.g., skilled nursing, assisted living, home health, hospice), creating an organization-wide QAPI program between settings can provide operational benefits over trying to run a variety of separate and independent CQI programs for each service line. Trying to operate and integrate multiple programs simultaneously may ultimately lead to fragmentation of processes across the organization and create opportunities for gaps in care delivery and other care-critical processes, such as transitions in care. While a provider organization may be required to implement a CQI program such as QAPI, how an organization chooses to do so is equally important to achieve effectiveness.

What Is Systems Thinking?

The systemic approach to management, also called a systems thinking approach, focuses on two fundamental concepts.

The essence of the first concept is that "a whole is more than the sum of its parts." The interactions between components that make up a system are just as important as the individual parts in fulfilling an organization's mission and purpose, which suggests that the whole possesses characteristics that none of the individual parts possess. Systems thinking hinges on the design of an organization—from individual positions to teams to departments, the processes that connect them, and the alignment of systems inside and outside the organization. All parts are important to fulfill a system's purpose; removed from the system, a part may lose its purpose, and the system may behave differently.

The second concept is called the "development ethic" and asserts that individuals in the system should be encouraged to develop and use their full potential for their benefit and for the benefit of the organization. "The inputs required to do this are a reasonable salary, access to required and desired learning, a managerial system that treats them fairly and encourages development, and a work environment that does not hamper their efforts." (Roth)

Organizations that incorporate a systems thinking approach share four key characteristics:

1. **True participation.** All employees affected by a decision have some level of input into that decision.
2. **Full integration.** Recognizing the reality of the whole, activities are coordinated on and between all levels.
3. **Ongoing learning.** The organization's activities and processes support and reward continual learning for all employees, which contributes to the continuous development of the system.
4. **Capacity to deal with continual change.** The organization has processes that allow it to adapt fluidly to changing internal and external environments.

By using a systems thinking approach, leaders of aging services organizations can better understand behaviors of their organizations and increase effectiveness in achieving organizational goals. This includes recognizing older adult patients and residents as stakeholders. By thinking in terms of parts, processes, and alignment, organizations can create shift-by-shift care environments that promote safety and quality of life for all involved.

Source: Roth W. A systemic approach to improving corporate performance. Bus Manag Dyn 2014 Oct;4(4):27–31.

PSOs in Aging Services: Protecting QAPI Activities as Patient Safety Work Product (PSWP)

When done correctly, it is important for aging services organizations to acknowledge that CQI efforts can create some risk exposures to the organization due to the nature of these activities, because they include a thorough analysis of care and service delivery systems to identify performance gaps that lead to potentially serious adverse events and incidents. Therefore, the QAPI program is not intended to simply address the factual account of the adverse event. The expectation is that adverse events will be thoroughly evaluated with frank discussions taking place among team members within the QAPI committee, and the organization will ultimately determine the best interventions or process improvements.

This may create a conflict for organizations striving for high reliability through transparency and open, honest communications, because in the event of litigation, the plaintiff's lawyers may seek the documents and discussions created when conducting QAPI activities—otherwise known as discovery. Unfortunately, this conflict exists even though a provider organization conducts these activities in good faith to prevent harm and even when the organization is required to do so by regulation.

The risks of discovery associated with the work product produced during QAPI activities—also known as PSWP—can be a significant barrier for provider organizations to instill robust QAPI processes due to the lack of a protected environment. However, aging services organizations can consider partnering with patient safety organizations (PSOs) to help overcome these barriers, a strategy that has been used to the benefit of many acute care providers for years.

The Patient Safety and Quality Improvement Act of 2005 (PSQIA)

Through PSQIA, Congress authorized the creation of PSOs, establishing for the first time a protected legal environment in which providers in all states and U.S. territories may share certain information about patient safety events and quality without the threat of information being used against them (42 U.S.C. §§ 299b-21 to -26). Essentially, PSQIA was enacted to provide an environment that encourages the prevention of harm through quality improvement best practices. Several types of aging services providers—nursing facilities, long-term care facilities (potentially including assisted-living residential care and other community-based care providers), home health agencies, and hospice programs—are eligible to participate in a PSO if they are licensed or otherwise authorized under state law to provide healthcare services. (42 U.S.C. § 299b-21[8]; AHRQ and OCR)

State laws inconsistent about confidentiality

No incentive to share information or learn from others

Fear of claims and suits from third-party disclosures

By participating in a PSO, providers may voluntarily and confidentially report their patient safety events and the resulting quality improvement information for aggregation and analysis and in return receive recommendations, protocols, best practices, expert assistance, and feedback to improve their patient safety activities. PSO participants benefit from a broad federal legal privilege that protects "patient safety work product" from subpoena and discovery and use in civil and criminal litigation against providers in any state or federal court and other tribunals, subject to a few narrow exceptions. The information that flows between providers and PSOs, and providers' deliberations about whether and what to report, as well as the fact of reporting, are privileged and confidential. (42 U.S.C. §§ 299b-21 to -26)

To learn more about the legal environment surrounding QAPI and what an aging services provider organization can do to earn and assert privilege from discovery for quality improvement and patient safety work product, see ECRI's aging services white paper Legal Discovery and QAPI: A Tale of Two Risks.

Finally, joining a PSO provides benefits beyond protections. As a learning system, the ECRI and the ISMP PSO has assisted many members across the healthcare continuum to get the most out of their quality improvement efforts and to guide the organization in the development of performance improvement capabilities through services like education, training, evidence-based publications, data analytics, and safe tables. Over the last 10 years, approximately 1,700 root cause analyses have been submitted to the ECRI and ISMP PSO. This action protects the findings, documents, and deliberations identified through the process when submitted as part of the formal PSO-member relationship and in a manner compliant with PSO regulations. The PSO also provides support to maximize the confidentiality protections of PSWP, including webinars featuring legal experts and a Patient Safety Evaluation System Toolkit. If you would like to explore the unique benefits of PSO membership as an aging services provider organization with ECRI, please visit https://www.ecri.org/solutions/patient-safety-organization.

Structuring QAPI

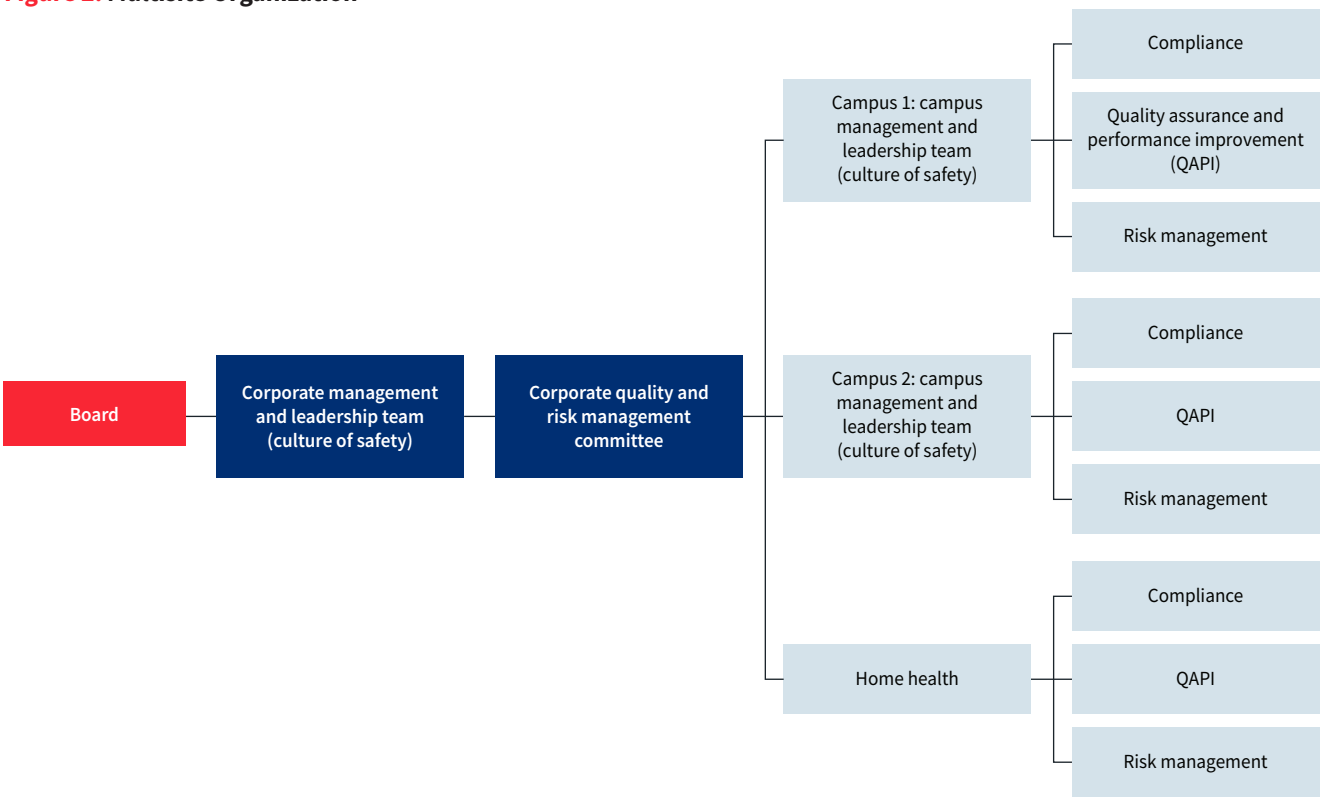
It is important that QAPI and/or CQI functions formally communicate with the risk management functions of the organization and vice versa. Likewise, environmental safety and security activities—whether related to physical plant safety, clinical safety, or grounds and property maintenance—are integral to overall risk management program success. How these programs integrate within an organization's structure may vary, but the activities that make up these programs should be consistent. Exercising good organizational design and diligence can enable these processes to complement rather than compete with one another.

Figure 1. Single-Site Organization

As illustrated in **Figure 1. Single-Site Organization**, a single-site campus or service line can seamlessly integrate risk management and QAPI activities as supporting functions of an organization's culture of safety, each with its own separate but targeted and complementary goals.

For multisite campuses and organizations that offer multiple service lines, risk management and QAPI activities still operate as part of an environment that supports a culture of safety, but each site or service line has its own dedicated risk management and QAPI activities that are tailored to the needs of each, as illustrated in **Figure 2. Multisite Organization**. This figure uses two campuses and a home health service line as the example, but one of the campuses could be replaced with other service lines—such as PACE, hospice, or adult day services—and still be illustrative of an integrated structure.

Figure 2. Multisite Organization



The Role of the QAPI Committee

Although each site or service line has their own risk management and QAPI activities, they are brought together and guided by a QAPI committee tasked with evaluating the effectiveness of the overall QAPI program, identifying opportunities for improvements, assigning PIPs, and establishing process and outcome measures for monitoring success. The committee reports to the organization's governing body, and its members should include the director of nursing; the medical director; at least three other members of the facility's staff—one of whom must be an individual in a leadership role if participating in CMS programs; and the infection preventionist (§483.75[g][2]). Committee members or senior leaders should also appoint a CQI champion, who would keep the committee on target to achieve its goals, seek and implement feedback, and motivate staff at large to support CQI and QAPI initiatives.

Blurred Lines: Performance Improvement or Risk Management?

Although a dedicated PIP may result from adverse event investigations, to reduce the likelihood of reoccurrence and future harm, careful distinction between initial event investigations and performance improvement activities should be made clear in written guidelines and policies to be made operational:

- *Initial investigation activities* are risk management techniques used to obtain facts about an incident, adverse event, or situation. These facts help improve other areas of organizational performance, such as the following:
  - Resident and family communication about incidents, harm, and potential harm
  - Licensing regulatory requirements to conduct post-incident investigations
  - Human resource management after an incident
  - External reporting to licensing groups and authorities
  - Preparation for potential litigation
- *Performance improvement activities* are quality improvement techniques used to improve the organization, help prevent future incidents, and reduce opportunities for harm.

Table 2. Differences Between Risk Management and QAPI illustrates the difference broken down by specific activities undertaken during an event investigation.

Table 2. Differences Between Risk Management and QAPI

Risk Management	QAPI
Initial investigation: investigating an incident or near miss after the fact	**Systems improvement:** preventing the next similar incident
Incident reports (basic facts about the incident)	Performance gap analyses (desired versus actual performance)
Witness *statements* (objective facts about what was observed—avoid opinions)	Witness or employee *interviews*
Incident timelines	Other root cause analysis tools, such as fishbone diagrams
Review of the medical record for resident-related facts about the incident	Executive summaries *with* improvement recommendations

QAPI Activities

Both QA and PI activities are complementary, data-driven approaches intended to improve the performance of an organization. As a QA activity, organizational data is identified, collected, and monitored for any changes in trends that influence care outcomes and is incorporated into quantifiable goals, otherwise known as key performance indicators (KPIs). KPIs monitor a wide range of care processes and outcomes by comparing the organization's performance to internal or external benchmarks or targets. Examples of common KPIs include, but are not limited to (CMS "Quality Measures"):

- Number of hospitalizations per 1,000 long-stay resident days
- Percent of residents who received an antipsychotic medication
- Percent of residents experiencing one or more falls with major injury
- Percent of high-risk residents with pressure injuries
- Percent of residents diagnosed with a urinary tract infection

The QAPI committee monitors KPIs monthly to identify opportunities for improvement based on the evaluation of the data. If a trend in a KPI changes, then the QAPI committee may assign PI activities to counterbalance the identified trend. Through PIPs, the PIP team evaluates a process, applies a rapid cycle for improvement (e.g., Plan-Do-Study-Act [PDSA]), and reports progress back to the QAPI committee as needed. Both

PI activities and PIPs rely on quantifiable goals that are realistic in scope to measure success, and such goals are based on data PIP teams choose as most appropriate to collect to monitor the project's progress.

Selecting Purposeful Sources of Data

While approaches and methodologies to performance improvement may vary per service line or department, and data may be collected and evaluated separately, it is important to recognize the influence these systems have on each other. For example, the goals of quality and risk management and environmental safety and security functions are similar: to improve the care, safety, and satisfaction of persons served, to enhance and assure the quality of the care and services provided, and to reduce the risk of loss to the organization. Under this lens, each department identifies their own KPIs related to the quality of services provided under each service line. From there, data that supports those KPIs is routinely collected to evaluate performance and set benchmarks for improvement.

Sources of data include but are not limited to:

- organization-wide event report data
- established quality of care measures, such as those from CMS
- satisfaction survey results for persons served, caregivers, and employees
- frontline staff member concerns
- regulatory licensing survey results
- regulatory site-visit report results
- staffing trends

Using Dashboards to Identify Performance Improvement Opportunities

KPIs for the organization's QAPI program or a designated PIP need to be communicated to senior leaders, as well as direct resident care and support staff. One way to achieve effective dissemination is via a dashboard, which allows viewers to track KPIs through a visual snapshot. Dashboards contain an organized collection of data to evaluate patterns and trends that help assess an organization's performance and identify opportunities for improvement. The dashboard may also contain statistical process control tools such as pareto charts, histograms, and other graphs to determine trends. Benchmarks based on historical data and goals—either based on performance or comparative data—should be included as well.

Dashboards are also customizable, allowing users to select data under a wide range of views, such as:

- Service-line comparisons within the health system (e.g., skilled-nursing, subacute care, assisted-living)
- Care delivery (e.g., change in resident condition, readmissions, emergency department transfers)
- Mandated or regulatory requirements (e.g., value-based purchasing, quality measures)
- Health inspections (e.g., corrective action measures in response to survey deficiencies)
- Infection control (e.g., vaccination rates, hand hygiene adherence, antibiotic stewardship)
- Adverse events (e.g., frequency, harm severity ratios)
- Persons served or staff satisfaction trends
- Resident and staff council activities
- Staff training and education trends
- Organizational goal or mission achievement

Showcasing KPIs in this manner helps aging services organizations identify multiple performance improvement opportunities, which sets the stage for prioritization based on the needs of the organization under the parameters set by the QAPI committee.

Prioritizing PI Opportunities

Conducting quality assurance is what drives performance improvement, and in doing so, QAPI committees must analyze data and trends to prioritize high-risk, high-volume, or problem-prone areas that affect quality of care and quality of life. While methods of prioritization vary among organizations, employing tools specifically built to assess system or process effectiveness are most helpful. ECRI's interactive calculators can help prioritization while supporting other risk management, resident safety, infection prevention, and quality improvement initiatives as well. For example, ECRI's Medication Reconciliation Resource Calculator determines an organization's annual net and gross cost savings of hiring a dedicated medication reconciliation staff member to reduce medication errors. CMS offers similar tools, such as a Prioritization Worksheet for Process Improvement Projects, which can serve as a systematic assessment process tool where QAPI teams can rate potential areas of improvement based on prevalence; risk to persons served; financial cost; relevance to persons served; responsiveness to needs expressed by persons

served; feasibility based on currently available resources; and continuity of organizational goals.

However, there are times that an issue or concern arises that needs immediate attention and corrective action, such as an adverse event indicating abuse, neglect, or maltreatment. In these circumstances, an event investigation must begin directly after initial notification of the incident, and the findings from that investigation must translate into targeted performance improvement initiatives to protect against reoccurrence. For more information on circumstances that require immediate response, see ECRI's white paper Incident Investigation in Aging Services.

Developing PIPs

After the performance improvement opportunities have been identified, it is important to gather the most appropriate people with intimate knowledge of organizational processes and subject matter expertise to form a PIP team while considering the following:

- Recruit staff who work closely with the problem.
- Ensure the team is interdisciplinary in nature and representative of each role affected by the project.
- Include resident and/or family representation, if appropriate.
- Designate a team sponsor or champion who assists with securing the appropriate resources for project success, helps keep team members on track, and problem solves team barriers.
- Identify a qualified team leader to coordinate, organize, and manage the process improvement committee.

Developed by the QAPI committee, a PIP charter clearly establishes the goals and milestones, scope, timing, and responsibilities of the PIP team and outlines the resources needed for success. The PIP team will ultimately rely on the charter to guide its activities. CMS' Worksheet to Create a Performance Improvement Project Charter can serve as a template for mapping out project elements such as potential barriers, goal formation, and team meeting schedules, among others. For example, in addition to PIP team meetings that focus on their assigned tasks, the PIP team will continue to meet as frequently as needed with the QAPI committee to report their findings and receive feedback. This coordination, coupled with leadership support, is essential for PIP success.

Choosing a Valid Analysis Method

Without a valid analysis method to identify performance gaps and root causes associated with a problem, a PIP team is left to guess what factors contribute to the problem and what performance improvements will reduce or prevent the likelihood of them occurring. Fortunately, there are many analysis methods to choose from, each with their own set of characteristics that should inform the most appropriate choice.

An RCA, for example, is a helpful early step in a PIP—an analysis process that aims to identify the reasons why a problem happened or is occurring (i.e., root causes) and includes the development of corrective actions to prevent reoccurrence. For process details and strategies, see ECRI's Root Cause Analysis in Aging Services: Considerations for Success. CMS' Guidance for Performing Root Cause Analysis (RCA) with Performance Improvement Projects provides additional guidance as well.

Although conducting an RCA is the traditional go-to analysis method in healthcare—and sometimes even required via accreditation, regulatory bodies, or state law—RCAs are often time consuming and resource-heavy, which makes it a suitable route for events that resulted in serious harm. However, other analysis methods may be more appropriate depending on the circumstances of the adverse event or process failure under investigation, such as a Plan, Do, Study, Act paradigm, which can help measure success, and act or adjust the countermeasure or intervention as needed as the organization learns from results and stakeholder input. For low- or no-harm/near miss events, an apparent cause analysis (ACA) provides a similar framework (and thus results) as RCAs, but are less intensive, wide in scope, and time consuming. Researchers at Children's National Hospital described their experience and results from utilizing ACA in a May 2020 *Pediatrics* article, and although this example concerns a different population served and care setting, the concepts, processes, and principles discussed can be applied to aging services. See ECRI's Comparison: Root Cause and Apparent Cause Analysis for more information.

It is worth noting that RCAs and ACAs are reactive strategies for event analysis, meaning the analysis occurs after an adverse event has already happened. Organizations should consider conducting proactive analyses as well—even though it's not federally or state mandated—such as FMEA, which focuses on identifying and addressing vulnerabilities before

harm occurs. Although previous adverse events or near misses can inform the selection of processes to analyze and may inform the analysis itself, an adverse event or near miss related to a process failure need not have happened. FMEA also supports an organization's "preoccupation with failure," one of the hallmarks of high-reliability, and supports risk management, because it allows organizations to proactively apply loss control techniques (e.g., loss prevention, loss reduction) to vulnerabilities rather than just react after an event occurs. See ECRI's Failure Mode and Effects Analysis for additional guidance.

Regardless of the analysis method chosen, the approach should have a clearly defined process, have a targeted scope, and result in comprehensive findings that can lead to actionable change.

Selecting PIP Measures to Monitor Effectiveness

To ensure that corrective actions are implemented, effective, and sustainable, every PIP must include a set of KPIs, which may also be referred to as quality measures or metrics, performance or quality indicators, or measured goals. These are data points that tie directly to the new action that are used to track progress of the PIP.

There are three types of quality measures (CMS "Measure"):

1. **Structural measures** that focus on fixed characteristics of an organization and its staff (e.g., staff-to-resident ratios)
2. **Process measures** that assess the steps or activities involved in care delivery (e.g., percentage of residents that had a skin assessment completed by a registered nurse within the first eight hours of admission or readmission)
3. **Outcome measures** that focus on the product or result of a process or care delivery system (e.g., facility incidence rate of on-site acquired pressure injuries)

CMS' Measure Indicator Development Worksheet describes each in more detail and includes a template for defining measure specifications and data collection characteristics.

The Institute for Healthcare Improvement recommends use of balancing measures as a method of protecting PIP efforts from unintended consequences that proposed changes may cause for other parts of the system slated for improvement, which is an important consideration for overall effectiveness (IHI). For example, if a post-acute care facility (or a shortstay unit) is reducing the length of stay for patients, the balancing measures should ensure that hospital readmission or transfer rates do not increase as a result. Monitoring hospital readmission rates and hospital transfers are the balancing measures.

Organizations should strive to use a variety of measures that aim to account for all possible effects of intended improvements.

Assessing the QAPI Program for Continuous Improvement

As part of an organization's strive for CQI, QAPI programs should be assessed at initial development and on an annual or semiannual basis to track overall progress, effectiveness, and completeness. Assessment should include feedback from the entire QAPI team and organizational leadership with the aim of obtaining honest reflections on QAPI initiatives, system efficiencies, process breakdowns, intervention successes, and stakeholder engagement, among other measures. CMS has a QAPI Self-Assessment Tool that organizations can use as-is or adapt as necessary.

QAPI in Action: A Success Story

Even though requirements for QAPI programs are laid out through CMS or state governments, implementation can be rife with challenges and missteps. Issues such as navigating staff turnover, leadership commitment, and limited available resources make sustained improvement a tall order for many aging services organizations. However, facilities that emphasize engagement may have the most success.

For example, a 180-bed skilled-nursing facility successfully established a comprehensive QAPI program that includes 15 teams, each with a targeted area of focus for improvement, such as clinical documentation, quality of care and quality of life, environmental excellence, life safety, dining, pain, skin integrity, and rehospitalizations, to name a few. Team members are given protected time for managing their QAPI responsibilities, and they meet regularly for planning QAPI activities. The cornerstone to its success? Ensuring that all stakeholders—from leadership, frontline staff, and housekeeping staff to residents and their families—were engaged and empowered to participate, which resulted not only in improved quality, but also improved staff retention and recruitment. (Flanagan)

With the duty to provide safe and effective quality care comes the duty to strive for excellence and for high reliability, and that road can be paved through structured QAPI programs that leverage aging services organization's most valuable assets: its staff and persons served.

Key Recommendations

- Use a systems thinking approach to performance improvement that is organization-wide and includes leadership participation.
- Integrate QAPI activities with risk management and compliance departments.
- Create a multidisciplinary QAPI committee and designate a champion to guide committee progress.
- Identify purposeful sources of data to influence QAPI planning and decision making.
  - Focus on system and process failures to reduce human and systems error.
- Design dashboards to showcase data trends in user-friendly views.
- Structure PIPs and data analysis to easily accommodate and foster organizational change.
  - Use KPIs as a measure of success.
- Solicit routine feedback from staff and persons served to ensure improvements result in increased satisfaction.

Resources

ECRI

- Patient Safety and Quality Improvement Act
- Legal Discovery and QAPI: A Tale of Two Risks
- Root Cause Analysis in Aging Services: Considerations for Success
- Failure Mode and Effects Analysis
- Incident Investigation in Aging Services
- Identifying and Managing Risks
- Calculators
- ECRI and ISMP PSO

CMS

- Measure/Indicator Development Worksheet
- Guidance for Performing Root Cause Analysis (RCA) with Performance Improvement Projects
- Worksheet to Create a Performance Improvement Project Charter
- PDSA Cycle Template
- Prioritization Worksheet for Process Improvement Projects

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