QAPI: An Overview
Presented for WHCA 5-24-2017

QAPI is a data-driven, proactive approach to improving the quality of life, care, and services in nursing homes. The activities of QAPI involve members at all levels of the organization to:

- identify opportunities for improvement;
- address gaps in systems or processes;
- develop and implement an improvement or corrective plan; and
- continuously monitor effectiveness of interventions.
QAPI is a regulation

- The Affordable Care Act of 2010 requires nursing homes to have an acceptable QAPI plan within a year of the promulgation of a final rule QAPI regulation.
- The QAPI regulation was supposed to be published in November of 2012... The QAPI regulation was expected to be published in 2013. That did not occur.
- QAPI regulation was published in November 2016.
- Begins with facility assessment in Phase 2 - November 2017.
  - Implementation Plan

QAPI is the merger of two complementary approaches to quality management, Quality Assurance (QA) and Performance Improvement (PI). Both involve using information, but differ in key ways:

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<th>Quality Assurance</th>
<th>Performance Improvement</th>
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<td>Motivation</td>
<td>Measuring compliance with standards</td>
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<td>Means</td>
<td>Inspection</td>
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<td>Attitude</td>
<td>Required, reactive</td>
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<td>Focus</td>
<td>Outliers: “bad apples” Individuals</td>
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<tr>
<td>Scope</td>
<td>Medical provider</td>
</tr>
<tr>
<td>Responsibility</td>
<td>Few</td>
</tr>
<tr>
<td></td>
<td>All</td>
</tr>
</tbody>
</table>

QA + PI = QAPI
**Quality Assurance**

- Quality assurance involves measuring and tracking indicators to find out where the facility is performing well, and where there are opportunities for improvement.

**QA** is a process of meeting quality standards and assuring that care reaches an acceptable level. Nursing homes typically set QA thresholds to comply with regulations. They may also create standards that go beyond regulations. QA is a reactive, retrospective effort to examine why a facility failed to meet certain standards. QA activities do improve quality, but efforts frequently end once the standard is met.

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**Performance Improvement**

- Performance improvement is the reaction and correction to an opportunity to improve.

**PI** (also called Quality Improvement - QI) is a pro-active and continuous study of processes with the intent to prevent or decrease the likelihood of problems by identifying areas of opportunity and testing new approaches to fix underlying causes of persistent/systemic problems. PI in nursing homes aims to improve processes involved in health care delivery and resident quality of life. PI can make good quality even better.
Create a “Just Culture”

In a non-punitive culture the individual is held accountable for his or her actions. The organization acknowledges that human error is not only possible, it is likely under certain circumstances.

Staff are held to professional accountability in admitting errors, including their own errors, to improve systems and prevent further errors.

Create a “Just Culture”

A non-punitive work environment is one in which it is recognized that many individual errors are predictable and unavoidable when human beings, including highly skilled human beings, interact with and use systems and equipment.

It acknowledges that individuals should not be held accountable for errors over which they have no control.

The Five Elements of QAPI

1. Design and Scope
2. Governance and Leadership
3. Feedback, Data Systems and Monitoring
4. Performance Improvement Projects (PIPs)
5. Systematic Analysis and Systemic Action

QAPI Element #1:

Your QAPI process has to measure your compliance in every department, and against every part of the regulation. And it’s not just a one time look.

DESIGN AND SCOPE
1. Design and Scope

QAPI
QAPI is Ongoing and Comprehensive within the facility. Deals with all services offered and all departments.
Should include Clinical Care, Quality of Life, Resident Choice, and Care Transitions.
Utilizes the best available evidence to define and measure goals.
Nursing homes will have in place a written QAPI plan.

Governance and Leadership

QAPI Element #2
Who is going to taking responsibility and how?

Governance and Leadership

QAPI Element #3
How are you getting data, and how will you confirm, with measurement, that what you are doing is working?

Feedback, Data Systems, and Monitoring
3. Feedback, Data Systems, and Monitoring

QAPI
Facility puts into place systems to monitor care and services, drawing data from multiple sources.
Feedback systems actively incorporate input from staff, residents, families, and others as appropriate.
Performance Indicators monitor a wide range of care processes and outcomes.
Findings are reviewed against benchmarks and/or targets the facility has established for performance.
Includes tracking, investigating, and monitoring Adverse Events.

Thresholds are a NON-ARBITRARY, VALIDATED benchmark to help you determine when an area needs a closer look.

QAPI Element #4

Prove that you are working on problems and that the success of your solutions is being measured.

PERFORMANCE IMPROVEMENT PROJECTS

What are PIPs?
• A Performance Improvement Project is more than a casual effort - it entails a specific written mission to look into a problem area.
• During a PIP a facility will try out some changes and then see whether or not they made a difference in the area they were trying to improve.
A typical PIP identifies:

- What the problem is
- A PIP team that will work on it, meet, and report back to the QAPI team in the building
- Do root cause analysis to figure out what the cause of the problem actually is (five whys, fishbone diagrams, etc.)
- What measure they will use to know if they were successful
- What interventions they will do to fix the problem

Processes that can be used

- PDSA
  - Plan-Do- Study- Act
  - Plan- Do- Study- Act- Sustain
- Root Cause Analysis

Root Cause Analysis

Root cause analysis (RCA) is a problem solving method or process for conducting an investigation into an incident, failure, actual or potential problem or concern. Events that can be investigated using the RCA process can be identified from many sources, such as incident reports, individual, family and staff feedback, surveys from regulatory agencies, an unexpected occurrence that led to individual or staff harm, or a repeating problem. RCA should also be considered for events that could have potential for a serious or negative outcome, such as “close call” or “near miss” incidents.
Root Cause Analysis

1. Identify the event
2. Select the team
3. Describe the event
4. Identify all the factors
5. Identify root cause
6. Change and measure
7. Communicate and sustain

Which tool?

<table>
<thead>
<tr>
<th>Tool</th>
<th>When to Use</th>
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<tr>
<td>Data Gathering Checklist</td>
<td>To collect data on your quality issue and identify the most important source of the problem</td>
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<tr>
<td>Flow Charting/Process Mapping</td>
<td>To understand all the different steps that take place in your process. A fundamental tool for any QAPI project</td>
</tr>
<tr>
<td>Root Cause Analysis – Fishbone/Ishikawa/Cause &amp; Effect Diagrams</td>
<td>To brainstorm about the main causes of a quality problem and the sub-cause leading to each main cause</td>
</tr>
<tr>
<td>5 Whys</td>
<td>To drill down deeper to get to the root cause of a problem</td>
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</table>

Data Collection

- Regardless of the tool that is chosen to use the first step is data collection
  - Keep the DC tool short and sweet
  - Only collect the necessary data
Flowcharting

- A flowchart is a pictorial representation describing a process being studied. Flow charts give team members a common reference point when analyzing a work process and planning for process improvement.

Flowcharting Procedure:
- Decide on the process to flowchart.
- Define the beginning and ending steps of the process.
- Use ovals to indicate the beginning and ending boundaries of a process.
- Write the beginning step in an oval.
- Use rectangles to indicate each successive action step in the process.
- When a step in the process requires decision, write a yes/no question in a diamond and develop paths for either answer.
- Write the ending step in an oval.

Process Mapping

- In a process map, each “lane” is labeled with a care team member or location that is critical for the process to succeed.
- Do not forget to include the resident.
- Each step of the process is placed in the appropriate lane according to who is handling the step.
- A process map allows the PIP team to see how many hand-offs occur during the process from start to finish. Unnecessary hand-offs signal inefficiencies and an increased opportunity for mistakes to occur.
Process Mapping

Once you have completed the process map, ask the following questions:

- Where are the bottlenecks? How can we address these?
- Are there inconsistencies in how things are done? What can be standardized?

Process Mapping

- Can things be done in a different order? In parallel? By a different person with better or the same quality, at a lower or the same cost?
- Can steps be located closer together to reduce travel?
- Does each step add value? If not, can it be eliminated?

Flow Charting: Mapping symbols
Flow Charting: Mapping symbols

- Delay
- Database
- Unclear Step
- Connector
- Bullet
- Cylinder
- Cloud
- Circle

Fishbone Diagram: RCS

- Root Cause Analysis allows the PIP Team to get at the “root” of the problem by better understanding where and why the problem exists.
- Conducting a Root Cause Analysis guides the workgroup or Performance Improvement Committee to make decisions based on data rather than “hunches” and to seek lasting solutions rather than quick fixes.

Fishbone Diagram: RCS

- It is also known as the Cause and Effect Diagram.
- This tool is useful in assisting teams to focus on possible root causes of performance improvement issues.
- The five main causes generally used are:
  - Manpower/People
  - Environment
  - Material
  - Equipment
  - Methods/Processes

Fishbone: is working backward

- Before creating the Fishbone Diagram, the desired outcome needs to be decided. Beginning with the desired outcome, work backward to identify the main factors that could affect that outcome and show them as the prominent branches or “bones” of the diagram’s structure.
Fishbone: is working backward

- Procedure:
  - Identify the problem the group will work on. Write the problem in a box on the right side of a flip chart.
  - Draw the “fish” outline, a long horizontal line (backbone) coming from the box and a series of diagonal lines (rib bones) coming off of the backbone.
  - Identify the main branches with the categories of causes.

RCA: The 5 Whys

- Another method of completing a root cause analysis is by making a table that asks a series of questions.
- The analysis repeatedly digs deeper by asking “Why?” then, when answered, “Why?” again, and so on until the cause of the issue is determined.
Pareto Charts

- The Pareto Chart is a tool that helps teams see which causes or problems occur most frequently. The chart plots out the activities or areas that contribute most to poor quality.
- The Pareto Chart is based on the theory that a small number of causes will have the largest contribution to poor quality.
- When a few activities contribute to most of the problem, it is called the Pareto Effect.
- A classic Pareto Effect is observed when 20% of the causes contribute to 80% of the overall problem.

Procedure:
- Place the data captured in the Check Sheet into a table, in descending order. From this table, calculate the percentage frequency and the cumulative frequency.
- Plot this information as a bar chart, where each vertical bar represents a different cause or problem and the left vertical axis represents the number of causes and problems.
- Identify the bar where the cumulative frequency is high relative to the number of categories.
- Look for a Pareto Effect, where the first few categories account for most of the problems.
Trend or Run Charts

- A trend chart gives visual representation of data over a period of time. It is also used to establish baseline performance, identify special cause variation and to compare members of a group with each other. Trend charts often include a line representing the average or mean of the data.

Trend/Run Chart Procedure

- Gather data in a chronological or sequential form. Measurements must be taken over a period of time.
- Divide the data into two sets of values, X and Y. The values for X represent the time intervals and the values for Y represent the measurements taken.
- Plot the data for each time interval.
- If an average or mean line is to be used, calculate and plot. Average or means is equal to the sum of all data points divided by the number of data points - i.e., 2, 5, 4, and 9 equals 20. Twenty divided by four equals an average of five.
- Connect the points for easier visualization.

Bar Graph

- A bar graph is a chart that uses either horizontal or vertical bars to show comparisons among categories. One axis of the chart shows the specific categories being compared, and the other axis represents a discrete value. Some bar graphs present bars clustered in groups of more than one (grouped bar graphs), and others show the bars divided into subparts to show cumulative effect (stacked bar graphs).
Bar Graph Procedure

- Determine the discrete range. Examine your data to find the bar with the largest value. This will help you determine the range of the vertical axis and the size of each increment. Then label the vertical axis.
- Determine the number of bars. Examine your data to find how many bars your chart will contain. These may be single, grouped, or stacked bars. Use this number to draw and label the horizontal axis.
- Determine the order of the bars. Bars may be arranged in any order. (A bar chart arranged from highest to lowest incidence is called a Pareto Chart.) Normally, bars showing frequency will be arranged in chronological (time) sequence. Draw the bars.

Pie Charts

- Pie charts, a form of an area chart, are an easy way to visualize percentage breakdowns of a total. They’re useful for analyzing polls, statistics, and managing money and data. And they make an excellent visual display for explaining data to other people.
Pie Charts

- Calculate the angle between the two sides of each pie slice. To do this, multiply each percentage (still in decimal form) by 360 (the number of degrees in a circle).
- Utilize the charting capabilities in Microsoft Office (Excel or Word). OR
  - Start with a perfect circle
  - Divide into quadrants
  - Subdivide as needed

Group Techniques

<table>
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<tr>
<th>Technique</th>
<th>Purpose</th>
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<tbody>
<tr>
<td>Brainstorming</td>
<td>To generate many ideas in a short amount of time. Ideas are suggested with criticism and evaluation is avoided</td>
</tr>
<tr>
<td>Nominal Group Techniques</td>
<td>To generate a list of options for a structured decision through the contributions of group members working individually</td>
</tr>
<tr>
<td>Multi-Voting</td>
<td>To select the most important of popular topics from a list with limited group discussion and difficulty</td>
</tr>
<tr>
<td>Structured Discussion</td>
<td>To gain group consensus on a list of ideas or topics</td>
</tr>
<tr>
<td>High Volume, High Risk, Problem Pone, High Cost</td>
<td>To prioritize issues so that those issues with the largest impact are addressed first and resources are utilized appropriately</td>
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</table>

Prioritizing Issues

- High volume, high risk, problem prone, and high cost is a technique used to prioritize issues so that issues with the largest impact are addressed first and resources are appropriately utilized.
Prioritizing

- **Priority of this topic:**
- Score each using the following:
  - 1 Very Low
  - 2 Low
  - 3 Medium
  - 4 High
  - 5 Very High

Prioritizing

- **PREVALENCE**: The frequency at which this issue arises in our organization.
- **RISK**: The level to which this issue poses a risk to the well-being of our residents.
- **COST**: The cost incurred by our organization each time this issue occurs.
- **RELEVANCE**: The extent to which addressing this issue would affect resident quality of life and/or quality of care.
- **RESPONSIVENESS**: The likelihood an initiative on this issue would address a need expressed by residents, family, and/or staff.
- **CONTINUITY**: The level to which an initiative on this issue would support our organizational goals and priorities.

Prioritizing

- **TOTAL PRIORITY SCORE**: __________
  - 1-5 Very Low priority
  - 6-11 Low priority
  - 12-17 Medium priority
  - 18-23 High Priority
  - 24-30 Very high priority

A LOW SCORE DOES NOT MEAN IT IS NOT A PRIORITY!
A low priority may have a great impact...
4. Performance Improvement Projects (PIPs)

QAPI
The facility conducts Performance Improvement Projects (PIPs) to examine and improve care in areas that are identified as needing attention.
A PIP project is a concentrated effort on a particular problem.
A PIP involves gathering information systematically to clarify issues or problems, and intervening for improvements.

5. Systematic Analysis and Systemic Action

QAPI
The facility uses a systematic approach to determine when in-depth analysis is needed.
The facility uses an organized approach to determine if identified problems are caused by the way care is delivered.
Systemic Actions look comprehensively across all involved systems to prevent future events and promote sustained improvement.
Facilities will be expected to develop policies and procedures and demonstrate proficiency in the use of Root Cause Analysis.

Other Key Factor

- Effective Meeting Management
  - Meeting Rules
  - Meeting Roles
  - Documentation
QAPI Overview
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Resources

https://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/QAPI/qapitools.html

MY FAVORITE:
http://www.medline.com/media/mkt/pdf/ProvidigmQAPIToolkit.pdf
https://www.lsquin.org/initiatives/nursing-home-quality/

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