Guide to Implementing Quality Improvement Principles
Quality Improvement in health care continues to be a priority for the Centers for Medicare & Medicaid Services (CMS). In the Affordable Care Act, the National Strategy for Quality Improvement in Health Care, Section 3011, indicates some of the priority requirements will be to improve outcomes, efficiency and patient-centeredness for all populations; to identify areas with potential for most rapid improvement; and to address gaps in quality, efficiency and comparative effectiveness.

CMS has embraced the concurrent goals of health care systems that serve populations:

- Improving population health
- Improving the health care experience
- Reducing the per capita cost through improvement

The Institute for Healthcare Improvement (IHI) refers to these three goals, pursued simultaneously, as “The Triple Aim.”

CMS will continue to use Quality Improvement Organizations (QIOs) to provide assistance to health care providers to improve on the clinical topics related to the Quality Measures that are publicly-reported. This quality improvement guide is just one tool that leaders may use to implement the principles of quality improvement. The principles of quality improvement can be applied to clinical care and organizational systems. The sections of this guide will explain general quality improvement principles followed by strategies for implementing quality improvement principles in your daily work.

Alliant GMCF, the QIO for Georgia, wishes to express its gratitude to the following organizations for sharing their quality improvement work:

Quality Partners of Rhode Island

Georgia Health Care Association (GHCA) Quality Subcommittee
Table of Contents

Overview

Section I – Quality Improvement Principles
A. What are the principles that we are trying to achieve?
B. Assessing your nursing home’s readiness to achieve these principles
C. Next Steps
D. Tools

Section II – Using Data
A. Using data to select target area for improvement
B. Using data to collect baseline information
C. Using data to monitor improvement
D. Next Steps
E. Tools

Section III – Using Teams
A. Why Teams?
B. The Two-Team Approach
C. Team Roles
D. Team Development
E. Strategies for Effective Teamwork
F. Next Steps
G. Tools

Section IV – Using Quality Improvement Methods
A. Quality Improvement Means Process Improvement
B. Steps to Quality Improvement
C. Quality Improvement Techniques and Tools for Teams

Section V – Using Techniques to Implement Change
A. Techniques to Implement Change
B. Designing an Implementation Plan
C. Overcoming Barriers to Change
D. Tools

Section VI – Using Leadership to Sustain Change
A. Role of Leadership in Quality Improvement
B. Quality Improvement Teams and Nursing Home Leaders
C. Sustaining a Culture of Quality Improvement
D. Communicating Quality to External Customers
E. Reinforce the Desired Results
F. Next Steps
Quality Improvement

Overview

The long term care industry has come to realize in the last few years the need to have all providers defining quality consistently. In reference to Provider Magazine’s August 2004 article on *Defining Quality in Long Term Care*, Bernie Dana defined LTC quality as, “the totality of service features and characteristics that meet or exceed customer needs and expectations.” From this definition, facilities are able to identify its internal and external customers and their needs and expectations. Once the customer’s needs and expectations have been determined, then facilities are able to identify measurable issues, indicators or opportunities for improvement.

In an effort to continually provide quality services to the customers we serve, each health care provider must have some form of an ongoing Quality Assurance/Quality Improvement Program. These programs have various structures, roles and titles (Continuous Quality Improvement, Total Quality Management, Performance Improvement, etc.) from facility to facility that meet the individual needs of that facility. It is imperative that each facility’s QA/QI program utilize a systematic approach to assessing and revising processes that impact the quality of services provided.

According to the federal rule F520, each LTC facility must maintain a QA Committee. The intent of these regulations and the function of the QA Committee focus on:

1. Identifying quality issues
2. Addressing quality issues through development and implementation of corrective action plans

The above noted F-tag addresses the parties that are to be included in the LTC facility’s QA Committee. However, other members of the QA Committee may participate on an “as needed” basis. Those member participations would be indicative of the types of issues being addressed. The QA Committee must promote a culture of teamwork and empowerment in an effort to create “buy-in” from the facility staff. Only through a teamwork and empowerment process will the QA Committee be able to identify pertinent issues and develop realistic action plans that will result in improved outcomes and overall customer satisfaction.

“The first step toward getting somewhere is to decide that you are not going to stay where you are.” ~ Anonymous
## Comparison of Quality Assurance and Quality Improvement

<table>
<thead>
<tr>
<th></th>
<th>Quality Assurance</th>
<th>Quality Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Focus</strong></td>
<td>• Catch “bad apples” – people or worker focus</td>
<td>• Examine and improve the processes</td>
</tr>
<tr>
<td></td>
<td>• Eliminate the bad performers</td>
<td>• Does not find fault</td>
</tr>
<tr>
<td></td>
<td>• Detect problems</td>
<td>• Integration into work</td>
</tr>
<tr>
<td></td>
<td>• A program</td>
<td>• Process oriented</td>
</tr>
<tr>
<td></td>
<td>• Results oriented</td>
<td>• Maintain standards/systems</td>
</tr>
<tr>
<td></td>
<td>• Evaluate the outcomes</td>
<td>• Focus on best practices so all can learn/benefit</td>
</tr>
<tr>
<td><strong>Goal</strong></td>
<td>• Meet the minimal standards</td>
<td>• Ongoing Process Improvement</td>
</tr>
<tr>
<td></td>
<td>• Control</td>
<td>• Breakthrough Improvements</td>
</tr>
<tr>
<td></td>
<td>• Identify the outliers</td>
<td>• Identify the system</td>
</tr>
<tr>
<td><strong>Who is Involved</strong></td>
<td>• Usually 1-2 individuals in the facility</td>
<td>• Teams</td>
</tr>
<tr>
<td></td>
<td>• Committees</td>
<td></td>
</tr>
<tr>
<td><strong>Driven By</strong></td>
<td>• Regulations</td>
<td>• Organization</td>
</tr>
<tr>
<td></td>
<td>• Accreditation</td>
<td>• Data</td>
</tr>
<tr>
<td></td>
<td>• Knowledge of peers</td>
<td>• Knowledge of all</td>
</tr>
<tr>
<td></td>
<td>• Special Cause variation</td>
<td>• Common and Special Cause examined</td>
</tr>
<tr>
<td></td>
<td>• Statistical Analysis</td>
<td>• Revision of performance</td>
</tr>
<tr>
<td><strong>When Occurs</strong></td>
<td>• Monthly or Quarterly</td>
<td>• Continuous</td>
</tr>
<tr>
<td><strong>Other Differences</strong></td>
<td>• No Historical Value or Customer Input</td>
<td>• Customer Driven</td>
</tr>
<tr>
<td></td>
<td>• Assigned responsibility for monitoring indicators</td>
<td>• Organization of a team comprised of people that work in the process</td>
</tr>
<tr>
<td></td>
<td>• Asks “who?”</td>
<td>• Asks “why?”</td>
</tr>
</tbody>
</table>

**Note:** The federal regulations state that Long Term Care Facilities “must maintain a quality assessment and assurance committee” (QA&A Committee) that addresses quality issues and implements corrective plans as necessary. Developing a QI Team to identify and fix the obstacles to improvement will help address process improvement.
Section I – Quality Improvement Principles

Section outline:
A. What are the principles that we are trying to achieve?
B. Assessing your nursing home’s readiness to achieve these principles
C. Next Steps
D. Tools

A. What are the principles that we are trying to achieve?

Right now, every individual at every nursing home practices quality improvement in some part of his or her life. We improve recipes for dishes that are too spicy or are not spicy enough, or we find faster ways to get to work when our regular route is under construction. We solve problems every day as individuals to improve our own lives. The challenge of practicing quality improvement at nursing homes is to solve problems together that affect the lives of many. Some key principles of quality improvement include:

- Make data-driven decisions
- Work as a team
- Improve entire processes of care or systems of care delivery, rather than targeting individual performance

This guide gives concrete tools and ideas that nursing home leaders can use to apply these principles to daily life at their nursing homes and achieve continuous improvement in care delivery.

Make data-driven decisions

Data collection is necessary for knowing if a process or system is working or not. Clinical outcome data (such as the QI/QMs), clinical process measures, error rates or the percentage of instances that a policy was followed correctly, are all examples of measures that tell a team whether the improvement it implemented is working or not.

Section II (Using Data) addresses how to interpret data, the types of data that are already available and the types of data that a nursing home team can collect.

Work as a team

When problems are complex and affect many people, individuals working alone often do not have enough information to find the problem’s root cause. It takes a team of staff with different skills and knowledge to find the root cause and design solutions to address it. Additionally, because the solution often requires one or more changes to a process or system, several individuals may be required to monitor whether or not the process has changed, and if the changes are working.

See Section III (Using Teams) and VI (Leadership) for more information on forming teams for quality improvement initiatives, and on the characteristics of leadership to make teamwork successful.
**Improve process or system**

It is often more difficult to find fault with processes or systems than with individuals. For example, it is usually easier to identify when someone “did not do his/her job” than to identify the obstacle(s) that made it difficult for him or her to complete a task, follow exact procedure or care for several people at once. These obstacles are often the root cause of the real problem. Making systems of care easier to do (e.g., reducing rework, improving timing, providing appropriate forms) will make the job easier for anyone working at your nursing home, to the benefit of all staff and residents. When there are fewer opportunities to make mistakes, fewer mistakes will be made.

Sometimes when we think that we have “fixed” a problem, the problem will return because the root cause of the problem still exists. The root cause of the problem is not always easy to identify, but there are tools and exercises that teams can use, like causes-and-effect diagrams, brainstorming and flow charting, that can help teams uncover the next steps they have to take in order to truly address the problem.

Section IV (Process Improvement) and Section V (Developing a Plan for Implementation) describe the specific actions that a team can take to identify and fix the obstacles to improvement, and to help address process improvement.

**B. Assessing your nursing home’s readiness to achieve these principles**

One of the first steps in assessing staff readiness to change and, ultimately, in implementing the key principles of quality improvement is to determine:

1. How does your staff currently view their role in making improvements?
2. What is your nursing home's current approach to making improvement?

Failure to assess your organization’s readiness for the change at multiple levels can lead to unanticipated difficulties in implementation, or even the complete failure of the effort.

You can begin to make these determinations by administering a readiness survey and following with open discussions.

**Administer readiness survey**

A readiness survey that has been used in clinical settings is available at the end of this section (*Readiness Survey*). It is designed to stimulate discussion about how staff members view their role in making improvements and the role of nursing home leadership in creating an environment in which improvements can take place. To administer the survey, encourage staff members at all levels and from all departments to complete and submit this survey anonymously. Then, after reviewing the differences and similarities in responses, select certain staff members to help you to assess your nursing home’s organizational climate (use the *Worksheet for Assessing Organizational Climate*, also available in the back of this section.)
Conduct group or individual discussions
Through group or individual discussions, use the results of the Readiness Survey to probe staff values and beliefs. These interactions can help staff members understand each others' viewpoints and can give them a basis for working in teams to solve problems. This discussion can also help nursing home leaders to understand what features of their nursing home do or do not contribute to a climate in which making improvements is possible. In such discussions, all staff should feel valued for their contributions so that information can flow freely.

The Worksheet for Assessing Organizational Climate can help facilitate further group discussion. Having the staff discuss the questions in this worksheet and then debate, disagree and, finally, agree on an assessment of your organizational climate can be exciting. Again, it is important to create a safe space for staff to be honest about the climate of the nursing home and staff members’ readiness to change in order to have a productive discussion.

Take action
By now, certain staff members are probably wondering what will be done with all of the information collected from staff readiness surveys and group discussions about your nursing home’s organizational climate and readiness to make improvement. The goal of these activities is not only to collect information, but to begin a conversation with staff members about how your nursing home can make adjustments in its current approach to making improvement. This will help in achieving a culture of continuous improvement as a way of doing business. Before a nursing home can achieve certain principles of quality improvement, by forming effective teams, addressing root causes or improving processes or systems, staff members need to agree that these principles of quality improvement are important and would make your nursing home a better place to work. You may wish to use the sample agenda provided at the back of this section at a staff meeting where staff members can agree or disagree whether implementing these quality improvement principles should be a priority at your nursing home.

C. Next steps
If the results of the staff readiness survey, group discussion and staff meeting indicate that your nursing home’s staff is ready to implement the principles of quality improvement, the following chapters provide guidance on how these principles can become reality in your nursing home. Section II focuses on how to select an area that needs improvement. Once an area for improvement is identified, you can begin to form a team to identify the root cause of any problems and possible solutions that address the entire process or system that is the focus for improvement.

D. Tools
### Readiness Survey

<table>
<thead>
<tr>
<th>Circle the number that best indicates the extent to which you agree with each statement.</th>
<th>Strongly Agree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Problem solving is an important aspect of my every day work at this nursing home.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>2. I think that improving the way we do things should be more strongly encouraged at our nursing home.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>3. Someone in our nursing home has the vision, leadership and authority to help me make improvements in the way I currently provide care.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>4. I do not have adequate time to fix the root cause of problems that interfere with my ability to do my job.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>5. I have access to information and ideas that I need in order to solve problems and make improvements in the way I do my job.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>6. Nurses at our nursing home regard making improvement to clinical processes as one of their main tasks.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>7. Physicians at our nursing home regard making improvement to clinical processes as one of their main tasks.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>8. Our nursing home is not willing to allocate resources (time, training, personnel and space) to improving the way we do things.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>9. Internal communication is strong among staff at our nursing home.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>10. A sense of teamwork does not exist among staff members at our nursing home.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>11. My supervisor is not interested in hearing my ideas for how we could improve the way we provide care.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>12. Our nursing home has successfully implemented specific changes as a result of a quality improvement initiative in the past.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>13. Our nursing home only makes changes as a result of decisions made by the Administrator or department directors.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>14. We have a quality assurance system in place to assess and improve service delivery (e.g., Continuous Quality Improvement [CQI]; Total Quality Management [TQM]).</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>15. We collect data that help us determine which areas of our nursing home or our work need improvement.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>16. We use data in making decisions about which problems we need to fix in order to improve the care we provide.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>

Worksheet for Assessing Organizational Climate

1. What are the values, attitudes and beliefs of our staff about making changes to the way we do our work? Does our staff resist change, or are they willing to try new things?


2. What are the values, attitudes and beliefs of our leaders (Administrator, Director of Nursing, Department directors) about making changes to the way we do our work? Do they resist change, or are they willing to try new things?


3. Do we perceive a need to change our systems or processes of care in order to improve the care we deliver? Why or why not?


4. Are we ready to make a change? Why or why not?


5. Do we have existing teams that study the ways that we can make change in our facility? Do they work well? Why or why not?
Sample Agenda. Achieving Principles of Quality Improvement

Presentation of Findings

- Determine readiness for change from staff survey
- Summarize staff views on and goals for organizational climate from group discussion

Presentation of Principles of Quality Improvement

What do we need to do to work toward an organizational climate of continuous improvement?
- Form teams
- Identify and address root causes
- Improve systems or processes

Goal for Meeting Outcome

- To determine whether there is consensus among staff members that an organizational commitment to continuous improvement is important for the nursing home to achieve. If there is consensus that it is, you can proceed to the next step – assessing your nursing home’s processes and outcomes and determining in which area to begin making changes that will lead to improvement
Section II – Using Data

Section outline:

A. Using data to select target area for improvement
B. Using data to collect baseline information
C. Using data to monitor improvement
D. Next Steps
E. Tools

A. Using data to select target area for improvement

There are many sources of data about your nursing home that you can use to target an area for improvement. Sources of data range from nursing home rates for CMS’ Nursing Home Quality Measures that are publicly-reported on Nursing Home Compare at www.medicare.gov/nhcompare, to internal data that CNAs collect on check sheets to track their work with individual residents. Table 1 outlines several examples of data sources and their uses.

Table 1.

<table>
<thead>
<tr>
<th>Data source</th>
<th>Audience</th>
<th>Used for:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resident medical records</td>
<td>Internal nursing home staff</td>
<td>Auditing systems of care</td>
</tr>
<tr>
<td>MDS</td>
<td>Internal nursing home staff</td>
<td>Auditing systems of care</td>
</tr>
<tr>
<td>Internal data on staff processes of care</td>
<td>Internal nursing home staff</td>
<td>Auditing systems of care</td>
</tr>
<tr>
<td>Advancing Excellence Tracking Tools</td>
<td>Internal nursing home staff</td>
<td>Targeting areas for improvement</td>
</tr>
<tr>
<td>Quality Indicators</td>
<td>Internal nursing home staff</td>
<td>Auditing systems of care; Targeting areas for improvement</td>
</tr>
<tr>
<td>The Joint Commission survey results</td>
<td>Internal nursing home staff</td>
<td>Targeting areas for improvement</td>
</tr>
<tr>
<td>Resident/family satisfaction survey results</td>
<td>Internal nursing home staff</td>
<td>Targeting areas for improvement</td>
</tr>
<tr>
<td>Employee satisfaction survey results</td>
<td>Internal nursing home staff</td>
<td>Targeting areas for improvement</td>
</tr>
<tr>
<td>State Survey results</td>
<td>Internal nursing home staff; Public/Consumers</td>
<td>Targeting areas for improvement</td>
</tr>
<tr>
<td>Publicly-Reported Quality Measures</td>
<td>Public/Consumers</td>
<td>Targeting areas for improvement</td>
</tr>
</tbody>
</table>
In selecting a target area for improvement at your nursing home, you may want to consider several sources of data to determine if multiple sources point consistently to the same problem area.

**Other steps to take include:**
- Soliciting staff members’ opinion about areas to improve based on their knowledge and experiences
- Discussing publicly-reported Quality Measures data with key staff members to determine where they want to most show improvement publicly

**Key questions to ask managers and staff might be:**
- Which areas do you feel we most need to improve?
- Which areas do you have the most difficulty managing?
- Are there any areas where you’ve seen care decline?
- What problems are causing the greatest discomfort, pain and anxiety for our residents?
- What problems are affecting the greatest number of our residents?
- In what areas do our publicly-reported Quality Measures appear worse than state and national averages?

Based on this analysis, you can prioritize the areas that you want to target for improvement in your nursing home. This decision can be made by nursing home leadership (Administrator, Director of Nursing, Medical Director), a governing board, the management team, the Quality Assurance/Improvement Committee or other groups involved in quality improvement within your nursing home.

**Data shock**
When you and your team first look at data for your nursing home, your first response may be anger or disbelief at the numbers. When you and your staff read the publicly-reported Quality Measures for your nursing home on Nursing Home Compare ([www.medicare.gov/nhcompare](http://www.medicare.gov/nhcompare)), a common response may be, “There is no way that these rates reflect the care we provide … we have an excellent staff, so this must be a problem with the measures.” Another reaction that staff members sometimes have is that they “explain” the outcome results by emphasizing the fact that the nursing home’s residents are unique compared to the rest of the country (even though the Quality Measures are risk-adjusted to “factor out” those differences so that nursing home rates are comparable).

It is important to be critical of data sources, to ensure that the data you are collecting or the data that is publicly-reported is accurate. The publicly-reported Quality Measures are calculated from MDS assessments for residents in your nursing home. You can take certain steps to ensure that the MDS information that you submit on each resident will be accurately reflected in the publicly-reported Quality Measures:
• Meet with staff that complete and code the MDS and discuss any possible problems with the coding of these items. Ask questions: Is the MDS coded correctly and consistently for each resident? Do staff experience difficulties in coding these items?
• Review the education that is provided to the staff that complete the MDS. Interview staff to determine their learning needs.
• Train all staff who document in resident charts, because documentation affects MDS coding. Documentation is a matter of good clinical practice and is an expectation of trained and licensed health care professionals. Frequently, nursing assistants, housekeepers, rehabilitation therapists, dietary workers and others who have contact with residents observe changes or problems that nursing staff should be aware of and consider in their documentation.
• Communicate the published data throughout the nursing home to educate and inform employees about the Quality Measures.

Once you are sure that your data coding and collection are accurate, it is important for you and your staff to move past immediate reactions to data and into an investigation of care processes that may have led to the outcomes that are reflected in the Quality Measures or other measures. The root cause of a problem usually lies within the processes of care delivery, rather than in individuals.

**Benefits of using data in selecting an area to improve**

By selecting and acting on specific measures or processes to improve, staff members are able to prioritize their quality improvement activities and to maximize limited resources by focusing on one area at a time. Because CMS’ Quality Measures are designed to report on outcomes of resident care, they are often most relevant to a nursing home’s quality improvement activities. Using resident outcome measures such as the publicly-reported Quality Measures, or process measures that relate to the clinical topics covered by the Quality Measures, enables staff to measure more precisely the effectiveness of the care they provide to residents. Once an area is studied or measured, data can be used to motivate improvement, since improvement in that area will be demonstrated by improvement in the measures.

Improvements in care delivery can lead to improved resident satisfaction. The more efficient and streamlined the care that is provided to residents, the happier they and their families will be. Not only will residents be satisfied, but other “customers” of your staff, such as physicians, managed care companies, vendors and the community, will be more positive about the quality of your nursing home. This positive satisfaction can be a powerful marketing tool for your nursing home, as you recruit staff and attract new families and residents.

To begin quality improvement activity focused on one area, it is important to collect other kinds of data that can give you and your team details about which process or part of the process needs improvement. Once an area has been selected for improvement, a common pitfall is that a team draws immediate conclusions about how to “fix” a problem and moves too quickly into corrective action, without knowing fully what part of the process is most problematic or why.
Collecting baseline data about a process is one of the first steps to uncovering the root cause of a problem.

B. Using data to collect baseline information about a process

Table 1, outlines several data sources that can be used for auditing processes or systems of care. The first step of auditing a process or system is to collect information about how well the system is working currently, or at “baseline,” before any change or improvement is made. No matter what the data source or what kinds of data are collected, it is important that any staff members that undertake data collection and auditing responsibilities understand how to interpret data.

**Defining measures**

The information that you collect about a process or system may tell you if a problem exists, how large the problem is or when or where the process is breaking down. In order to get specific information, you and your team need to define measures of your process or system. These measures could be about outcomes, like “percentage of residents with pain.” Or these measures could be about process, such as “percentage of residents that are screened for pain on admission.”

The *Facility Assessment Checklists: Pressure Ulcer*, which can be found in Section VIII, may give your team some guidance about processes on which it could collect data. Additional clinical topics related to CMS’ Quality Measures can be found in the sections at the back of the manual. Your nursing home may also select other measures for which to collect data for non-clinical improvement projects.

*Worksheet A: Identifying Areas for Improvement* (provided at the end of this chapter) gives one example of a type and method of data collection.

**Collecting data**

If a team decides to collect data in order to get information about the root cause of a problem, the team should consider the factors (such as change in shift, weekday vs. weekend and difference in unit or floor) that cause a process to vary. Consider the following questions when designing your plan for data collection:

- Which data elements will be collected? (For example, if a team is counting how often a Falls Assessment was performed, they should define what a Falls Assessment includes.)
- How many charts/cases will be reviewed?
- On which unit will data be collected?
- On which shifts will data be collected?
- How long will data be collected (i.e., 1 week? 2 weeks? A week including a weekend?)
Interpreting data
Most measures are calculated as percentages, rather than total numbers. This is because percentages are often more descriptive than numbers. For example, if the number of residents admitted to your nursing home with a pressure ulcer has decreased from 10 per month to 5 per month, you don’t know how much of an improvement that is unless you know whether your nursing home admitted 20 residents or 200 residents in that month. When you calculate the percentage of residents admitted with pressure ulcers per month, you know the size of improvement represented by that decrease in number of residents admitted with pressure ulcers.

EXAMPLE 1:
MAY

\[
\frac{10 \text{ residents admitted with pressure ulcers}}{20 \text{ residents admitted total}} = \frac{1}{2} \text{ (50%) of all residents admitted have pressure ulcers}
\]

JUNE

\[
\frac{5 \text{ residents admitted with pressure ulcers}}{20 \text{ residents admitted total}} = \frac{1}{4} \text{ (25%) of all residents admitted have pressure ulcers}
\]

EXAMPLE 2:
MAY

\[
\frac{10 \text{ residents admitted with pressure ulcers}}{200 \text{ residents admitted total}} = \frac{1}{20} \text{ (5%) of all residents admitted have pressure ulcers}
\]

JUNE

\[
\frac{5 \text{ residents admitted with pressure ulcers}}{200 \text{ residents admitted total}} = \frac{1}{40} \text{ (2.5%) of all residents admitted have pressure ulcers}
\]

In both Example 1 and Example 2, the number of residents admitted with pressure ulcers decreased by the same amount (10 residents in May to 5 residents in June).

However, the relative size of that decrease was much bigger in Example 1 (a decrease of 25%) than in Example 2 (a decrease of 2.5%).

In order to calculate percentages, you must have a:
- **Numerator**, or the number that represents the event you want to measure. In the examples above, “10 residents admitted with pressure ulcers” is the numerator.
- **Denominator**, or the total number of events possible. In the examples above, “20 residents admitted total” or “200 residents admitted total” are the denominators.

Divide the numerator by the denominator.
- Ex.: \( \frac{10}{20} = 0.5 \).

Multiply the result by 100 and add a percentage sign.
• Ex.: 0.5 X 100 = 50%.

When collecting data, you will need to identify a definition for your numerator (which will be the subject of your improvement) and your denominator (all possible cases that could be in your numerator). Then, calculate your results as percentages. A sample goal for improvement could be to achieve 100% of a positive result (e.g., 100% new admissions screened for pain on admission), or 0% of a negative result (0% of high-risk residents that develop pressure ulcers).

C. Using data to monitor improvement

Once you have defined measures that will help you know more about a problem, or that give you baseline information about how your process is currently working, you may want to continue collecting data on those measures. Ongoing data collection can tell you whether any changes you make have had an impact on the care you provide, as demonstrated by a change (improvement or worsening) in the measures.

One type of data collection is data that is logged as events occur. For example, on the Advancing Excellence website at http://www.nhqualitycampaign.org/star_index.aspx?controls=resByGoal#goal4 you can collect data on the Tool for Tracking Admitted vs. Acquired Pressure Ulcers (xls).

This tracking tool will identify whether the resident with the new pressure ulcer was admitted with or was in-house acquired. Having this information will aide you in identifying where you need to focus your changes.
Another ongoing data collection method is to periodically check medical records. For example, one measure to monitor pain management might be the number of residents that report an episode of severe pain for whom a physician, physician assistant or nurse practitioner was contacted. A data collection tool similar to a check sheet can be used to indicate the number of medical records checked for residents who reported an episode of severe pain, and number of those records that indicate that a physician, physician assistant or nurse practitioner was contacted for a resident with a severe episode of pain. Medical records could be checked on a weekly basis, and the percentage of residents with an episode of severe pain that received the attention of a physician, physician assistant or nurse practitioner can be tracked over time.

One common tool that is used to track progress is called a **run chart**. You can use a run chart to plot changes in data over time. A run chart provides a graphic depiction of the progress of the quality improvement activity, and can be especially helpful in tracking what changes in the process make the most difference in the measures chosen. Example: Here is a run chart from data obtained from all MDS entries from Q1-2007 through Q1-2010.

When a team collects data to monitor the results of the changes it makes to a process, the team can illustrate which changes resulted in improvement by sharing data in a run chart. Run charts not only demonstrate what the team has learned about improving care delivery, but also offer a way for the team publicly recognize the improvements that its efforts have produced.
D. Next steps

Data can be used for several reasons in quality improvement activities – to select areas for improvement, to identify the outcomes of the current process, or to monitor the results of improvement efforts. Understanding data is just one step toward achieving the key principles of quality improvement. Forming effective teams that will collect and use data is another step, as discussed in the next Section.

“If you are standing still, you are falling behind.”

E. Tools
Worksheet A:
Identifying Areas for Improvement

1. Select one question (from the Facility Assessment Checklist, if applicable) to examine further.
   Example: Does our facility routinely ask all residents upon admission/readmission if they have pain?

   QUESTION:

2. Randomly select five (or more) medical records (or other data source, depending on the question) to review. Determine a question that will be asked:
   Example: Was this resident asked about their pain upon admission/readmission?
   Example: How long many call lights were answered within X minutes?

   QUESTION:

3. Collect data:
   • Data can help you separate what you think is happening from what is really happening.
   • Data will establish a baseline so you can measure improvement.
   • Data will help you avoid putting solutions in place that will not solve the problem.

   Record Findings Here:

<table>
<thead>
<tr>
<th>CASE #</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. If data is not readily available from medical records, what sources did you use to collect your data, and what steps did you take to collect this data?
Section III – Using Teams to Improve Quality

Section outline:

A. Why Teams?
B. The Two-Team Approach
C. Team Roles
D. Team Development
E. Strategies for Effective Teamwork
F. Next Steps
G. Tools

A. Why Teams?

Nobody in a nursing home works alone. The very nature of health care delivery requires a high degree of interaction and cooperation at all levels and across all departments. Organizing nursing home staff into teams provides a structure to ensure that all staff on teams share the same objectives and same direction. The simplest definition of a team is a group of people working together for a common goal.

Forming teams to provide care, to coordinate services, to solve problems or to implement an improvement is a way to recognize that nothing happens in the nursing home because of just one person or one department. Rather, nursing home work requires interdependence of individuals and departments.

Teamwork is especially vital to quality improvement. Employees know where problems lie and have ideas on how to solve them. Using teams for quality improvement acknowledges that “none of us is as smart as all of us.” A team of individuals working together leads to the generation of more and better ideas than individuals could arrive at on their own. Involving employees in identifying the need to change, planning and implementing the change, evaluating the results of the change and acting on those results will make employees the “owners” of the change and encourage them to work to make it succeed.

Teamwork begins to tear down walls and break down barriers between departments. When staff from different departments begin to understand each other’s work, problems and frustrations, they begin to respect each other, which then leads to greater cooperation.

B. The Two-Team Approach

The two-team approach is an example of one way to organize your nursing home’s quality improvement work. The two teams used in this approach are:

- **Quality Improvement Council** (also know as a Quality Assessment Council or Steering Committee): This group probably already exists in your nursing home, as the Quality
Assessment Committee or Quality Improvement Committee, as a group that meets on an ongoing basis. This team’s tasks are to analyze data reports, to identify major areas for improvement and to provide direction to and oversight of the activities of Quality Improvement Teams. This team may consist of department directors, the Administrator and other quality improvement specialists who can provide leadership support for the Quality Improvement Team (Implementation Team) that may require time, supplies or other resources to implement changes to process.

- **Quality Improvement Team** (Implementation Team): This team will plan, implement and evaluate improvement on a topic selected by the Quality Improvement Council. The activities that this team will undertake are root cause analysis, pilot testing, collecting data, disseminating the news of improvement throughout the nursing home and implementing improvements nursing home-wide. Make sure your teams include appropriate members related to the topic chosen for improvement. Team members should include staff who are regularly involved in or affected by the specific process, especially CNAs, but also unit managers, charge nurses, In-Service or Education directors and staff from different departments and/or shifts.

The focus of the rest of this section is on the formation and development of **Quality Improvement Teams**.

### C. Team Roles

In putting together Quality Improvement Teams, some questions to ask are:

- How do staff members work together?
  - Who is task-oriented?
  - Who is a natural leader?
  - Who initiates communication (necessary for promoting information about proposed improvements)?
  - How does communication flow among staff?

**Worksheet B: Forming a Team** (at the end of this chapter) also gives tips for documenting team formation.

**Role and Responsibilities of the Team Leader**

Effective teamwork requires a strong team leader. The team leader is often the person who is most closely related to the process chosen for improvement, and who is genuinely interested in seeing improvement. The role of the team leader is to provide guidance and direction to the team, keeping the team focused on their goals and desired outcomes. The team leader knows how the team’s work fits into the nursing home’s overall mission, vision, values and plan. The team leader is an active team member and attends meetings, completes assignments and shares in the team’s work. In the beginning of the team’s work, the team leader may spend
more time helping team members build trust with each other, resolve conflicts and establish frequent communication. The team leader is not viewed as the chief decision-maker for the team, but rather facilitates team members through the process of building consensus for decisions.

Ideally, the team leader exhibits the following characteristics:

- Positive “can do” attitude
- Enthusiasm, even when the team encounters difficult times or obstacles
- Confidence in the team’s work
- Logical analytical thinking
- Appreciation for the contribution of all team members

**Role of the Facilitator (aka Quality Advisor, Facilitator)**

In ideal situations, a facilitator assists the team leader. This person may be a manager within the nursing home or an outside consultant assisting the team. The facilitator is not a member of the team, but a person outside the group who serves as a coach or consultant to the team. The facilitator assists the team leader providing instruction on the use of tools and methods used in the quality improvement process (see next Section). Facilitators are selected on the basis of their analytical abilities and problem-solving skills. Facilitators should have little or no knowledge or responsibility of the process their team is working to improve.

The primary role and responsibilities of the team facilitator are as follows:

- Partner with the team leader
- Stay objective and neutral – do not get involved in content
- Help the team follow logical problem-solving model – stick to the process!
- Help the team stay on track
- Guide the team in data collection
- Assure team members are participating
- Coordinate ideas
- Introduce problem-solving tools and show team how to use them

Facilitators can also be useful to the team by summarizing meetings, suggesting next steps and providing the team with feedback as to their progress. Facilitators routinely meet with team leaders following a team meeting to debrief and discuss plans for the subsequent meeting(s).

**Roles and Responsibilities of Team Members**

Team members are responsible for the work involved in improving a specific process in the nursing home. Each team member has the responsibility of focusing on the team objective, contributing information, sharing his or her experiences, perspective and ideas, making decisions and developing an improvement plan. Team size is typically 5-7 members. It is important that team members are involved in the process being improved.
The responsibilities of team members include:

- Attending and participating in all team meetings
- Recommending meeting agenda items
- Offering perspectives, experiences and ideas
- Stating problems along with alternative solutions/options
- Helping ensure that the team stays on track and focused on its goals
- Sharing responsibility for work outside of team meetings (e.g., data collection, talking with other staff members, conducting literature search, interviewing families or residents, etc.)
- Critiquing and improving the meeting process

The team leader should personally invite staff to be on a team, communicating the purpose of the team and what the team hopes to accomplish. Most important, team leaders should share why that individual has been selected to be on the team, pointing out their unique qualities, skills or experiences. For example, “Fred, we would like you to be on the team because you have been at our nursing home for 10 years and you have demonstrated great problem-solving skills” or “Sue, you have really demonstrated skill in providing excellent input about resident care and we would like you to be on our team.”

Review the responsibilities of team membership when inviting staff to serve on a team. Team members are expected to attend meetings, offer insights and ideas and at times perform tasks outside of team meetings. Agree as a team what days and time of day would be best to meet. This will help on scheduling meeting times that are convenient to members and avoid attendance problems later on.

Some of the most dedicated team members will be those who have volunteered because they have an interest in improving the specific process that the team is focusing on. Be sure to announce the request for volunteers widely across the nursing home.

D. Team Development

When a group of individuals gathers as a team, they often do not immediately demonstrate the cooperation and collaboration that is necessary to become an effective, cohesive team. Teamwork takes time and effort to create and build. Team interactions and work patterns vary dramatically. No two teams behave and function in the same way. However, in a general sense, we can think of team development according to the following two stages:

<table>
<thead>
<tr>
<th>Stage 1 Initial Team Development</th>
<th>Stage 2 Team Functioning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gain Acceptance</td>
<td>Achieve Cooperation</td>
</tr>
<tr>
<td>Build Trust</td>
<td>Perform Task</td>
</tr>
</tbody>
</table>
**Stage 1: Initial Team Development**
In Stage 1 the newly formed team is a collection of individuals working to gain acceptance and to build trust. Common questions include:
- Why am I here?
- What is expected of me?
- Can I do what is expected?
- Who is in charge?
- What is our goal?
- Who is responsible for what?
- How will we function?

Typical behaviors include: being polite to each other, masking feelings of reluctance or insecurity and gaining a clearer sense of how they fit into the team. Team members may be cautious in their communication until they develop a sense of trust and comfort with their fellow members. The leader will need to explain the purpose of the team, help set team goals and guide the team in setting “ground rules” (guidelines for team members’ interactions). Once the team has earned each other’s trust, team members will be enthusiastic. The team will be creative and productive. However, team members may also express frustration at the pace of the team’s progress or with other team members. The team leader will need to model appropriate behavior and responses, and help team members resolve inevitable conflicts that will arise. The team itself must also be willing to evaluate its effectiveness as a group.

In order to build trust, some activities that teams may consider doing during their first few meetings are:
- Have team members share something about themselves
- Ask team members to share what they hope the team accomplishes
- Ask team members to share what strengths they bring to the team. This helps the team recognize that the combined strengths of individuals can lead to a very powerful team.
- Ask team members to share any concerns they have about the team. The team leader should address these concerns to avoid problems later on in the team’s process.

**Stage 2: Team Functioning**
In Stage 2, the team is able to function as a team. Members communicate openly, are committed to the team’s mission and objectives, and are willing to cooperate and share the responsibility of performing team tasks. The leader can help team members strengthen their trust in one another by increasing their responsibilities and providing new challenges. When the team has learned to resolve conflicts constructively, the leader will take a back seat to the team’s development, but be aware if the team loses momentum and becomes complacent about their work. The leader may need to then identify new challenges or recognize when the team has completed its task to improve a specific process, and the torch can be passed to another team charged with improving a different process.
E. Strategies for Effective Teamwork

In the first few team meetings, the team should:

- Become acquainted with each other and the team leader and facilitator
- Define the roles of team leader, facilitator and team members
- Receive an overview of process improvement and quality improvement techniques (see next Section)
- Define the goals of the team (see next Section)
- Establish team ground rules
- Establish a meeting schedule

Establish ground rules

Ground rules are a set of guidelines, established by the team, that govern how meetings are run and how members interact with each other. These rules help the group define standards for behavior that may be crucial as the team confronts challenges and areas of potential conflict. Ground rules are one of the first tasks attended to by teams, but can be changed once a team begins to work together and new issues arise.

Important issues that teams commonly address in ground rules are:

Attendance: Accepted reasons for absences and the procedure to follow for expected absence. Example: “Members are excused by leader only if absent from work.”

Meetings: Location and time, frequency, breaks, acceptable interruptions (e.g., phone calls, pagers)

Participation: Expectations about everyone’s participation, speaking freely, listening to each other, basic conversational courtesy (e.g., not interrupting, one speaker at a time). Examples: “We allow disagreements.” “No personal attacks.” Examples of ground rules include:

Assignments: Expectation for timely completion of any tasks to be completed outside of meeting time.

Your Quality Improvement Team can brainstorm specific ground rules at the first meeting.

Conduct productive meetings

Quality Improvement Teams should meet on a regular basis to maintain momentum and complete their objectives in a reasonable length of time. Ideally, this means that teams should meet for 30 minutes to one hour weekly or every other week. When team meetings are scheduled at a regular day and time, it may be easier for team members to arrange their activities around the team meetings, so as to minimize disruption to the team members’ other work. If possible, the Quality Improvement Council or other leadership group in the nursing home should provide the resources (e.g., extra staff, overtime pay) to enable team members to consistently participate in team activities.
Every meeting should have an agenda and should start and end on time. The agenda delineates the desirable outcomes or actions to be taken at the meeting. It is the responsibility of the team leader (with the help of the facilitator) to utilize the agenda to keep the team focused on their meetings. The team leader and facilitator should develop agendas prior to the meeting. Once a team has been working together for a period of time they should use the last few minutes of each meeting to establish their agenda for the next meeting. The agenda should:

- Define the direction and the area of the discussion
- Define the end purpose of the discussion (e.g., complete a flow chart, make a decision, identify root causes, etc.)
- Ensure that time is allocated appropriately so that items receive complete discussion – if desired, assign time frames for each discussion item

The team leader should close each meeting by:

- Assuring team members are clear on assignments
- Summarizing key decisions and actions
- Asking team members to discuss obstacles and mistakes (and what can be learned from them), and to recognize and celebrate successes
- Reviewing the date, time and purpose of the next meeting

While time may not allow this discussion at every meeting, periodic evaluations of team meetings by the members themselves helps to improve the team’s effectiveness and address problems before they become major obstacles.

It is also important to keep records/minutes of team meetings. Team members can share the responsibility of being a scribe. Team records help teams stay on track and monitor their progress. A sample format for keeping team records is provided in Worksheet C: Team Meeting Notes (provided at the end of this chapter).

**Resolve conflicts**

It is important to recognize that conflict is normal on a team and should be viewed positively. Creative ideas that might not have been arrived at otherwise may arise out of conflicting opinions. If a team is having difficulty reaching a decision or cannot come to consensus about a solution, proposal or decision, the team leader should allot time for the team to discuss the particular issue that is the cause of the disagreement. The team leader can follow these guidelines for resolving conflict:

- Set a positive tone. Remind the team that conflict is not bad and that it can lead to a stronger team and better, more creative solutions.
- Remind the team of its ground rules and agree to abide by them throughout the discussion.
- Review the overall goals of the team.
- List the points/items the team agrees to and list the points/items the team disagrees on.
• Focus on the points of disagreement – clarify the disagreement.
• Present any data or facts to support the points being raised (if data is not available, the team may decide to collect it).
• Discuss the root cause of the disagreement.
• Brainstorm solutions.

Other guidelines for team members to aid in conflict resolution:
• Make factual statements; be descriptive.
• Listen carefully.
• Don’t prejudge.
• Understand where the other person is coming from.
• Know that what you perceive may be different from what the other person perceives.
• Concentrate on understanding rather than on agreement.
• Keep discussing – the areas of agreement will widen!

Throughout the discussion, the team leader should assure that all members have an opportunity to speak, that all members are actively listening, that members respect each other and do not criticize each other; and that feedback shared among team members is non-evaluative and judgmental but constructive and factual.

If after following this process the team has not reached agreement, the team leader may ask the individual(s) in disagreement the following question: What would it take for you to agree with this decision/solution/proposal? Based on the response, other team members should work to address the concerns raised by the dissenting team members.

*Make decisions by consensus*

Major decisions on a team should be made through consensus. Consensus is finding a proposal, decision or solution acceptable enough that all members can live with the decision and agree to actively participate in related activities. While there may be “give and take” among team members throughout the problem-solving process, when the team is ready to select its final solutions, there should be no strong disagreement among team members. If team members do not agree with proposed solutions they may not actively support implementation.

Reaching consensus on a team requires open and honest discussions throughout the process, involvement by all team members, active listening by all members, respect for each other’s ideas and a mind open to new or different ideas. The team leader and facilitator can assist a team reach consensus by continuously summarizing discussions, clarifying points and assuring all members are contributing to discussions. The team leader should consistently emphasize that the goal of the team is to reach consensus and should constantly remind the team of its goals.
Complete assignments between meetings
Meetings help teams build trust and provide forums for discussion and decision-making, but they are also time-consuming and require the coordination of busy schedules. It will be important for teams to also institute creative approaches to communication that limit the length and frequency of team meetings. Many activities that are integral to the quality improvement process, such as data collection or communication to staff, can be done by individuals working separately and then meeting to discuss findings and forming conclusions.

Bring closure when team achieves goal
When a team achieves its goal, it is important to bring a sense of closure to the team members who worked to reach that goal. The sense of satisfaction that this brings will be carried forward to the next team or project. It provides the opportunity to tie up any loose ends and highlight any necessary follow-up.

When the team leader recognizes that the team’s goal may have been met, ask the team at the next meeting to determine whether it believes its job has been completed.

- Did the team achieve its goal(s)?
- What did team members learn from the experience?
- What advice would the team give to others who seek to make similar improvements?
- What did the team accomplish?
- What problems did the team encounter?
- What follow-up is needed and who will do it?
- What presentations need to be made about the team’s work to management, others in the nursing home or outside groups, in order to raise awareness about the team’s work?

F. Next Steps

Once the Quality Improvement Team has been selected, the team needs to define its specific goal for improvement within the targeted area. The team also needs to understand the principles of process improvement, which the team will use to achieve its goal. The next Section reviews the steps necessary to develop a goal statement and to use tools for process improvement.

“Coming together is a beginning, keeping together is progress, working together is success.”
~ Henry Ford

G. Tools
Worksheet B:  
Forming a Team

A team is identified as a small number of people with complementary skills who are committed and accountable to a common purpose.

1. Identify team members who will work on this project
   - Teams should have 3-4 members that will plan, implement and evaluate their work.
   - If you already have a team, make sure that it includes appropriate members related to the topic chosen for improvement. Suggested members: one staff nurse, one CNA, In-Service/Education director and DON or Administrator.
   - Involve staff from different shifts, units and departments.

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Alternates:

2. Identify time and place for short weekly meetings (no more than 30 minutes)
   - Team does not have to meet at same time and place each week.
   - Meetings can be more or less frequent as needed.

Post meeting schedule in a place accessible to all team members:

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Place</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

“Teams always outperform an individual.”
Worksheet C:  
Team Meeting Notes

Team Members:  
Team Start Date:  
Team Goal:  

<table>
<thead>
<tr>
<th>Date</th>
<th>Main points of discussion</th>
<th>Next steps</th>
<th>Person Responsible</th>
<th>Due by:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Continue to jot down team meeting notes on other pages. Share updated Team Meeting Notes with all members of team after each meeting.
Section IV – Using Quality Improvement Methods

Section outline:

A. Quality Improvement Means Process Improvement
B. Steps to Quality Improvement
C. Quality Improvement Tools for Teams

A. Quality Improvement Means Process Improvement

Reviewing data and forming teams are two integral steps toward achieving quality improvement principles. Actual improvement in care, however, cannot be achieved through simple monitoring of data or teamwork. The improvements can only be achieved by changing the way care is delivered, through improvement in the process or processes by which work gets done and services are provided to residents.

A process is the steps/activities/tasks that lead to a particular end. In a nursing home, that end is the delivery of care for its residents: the provision of a clean, comfortable room; the provision of nutritious, enjoyable meals; the administration of medications; the provision of therapy; the provision of personal care; the provision of enjoyable recreation; etc. It includes all the supplies, equipment and people needed to perform the work and deliver the care. Process is not an individual task but the whole – the inputs, the manpower and the methods must be examined and improved if improvements in care and clinical outcomes are to be realized.

While quality problems are often blamed on staff incompetence or laziness, most problems with quality are actually due to failures in processes and systems. Health care workers are typically compassionate, caring individuals who strive to give their residents and patients the best care they possibly can. Very often, however, the process they are working in, is not working for them. That is, supplies may be lacking or inadequate, equipment may be outdated or broken, staffing levels may be not be optimal, methods may be cumbersome and inefficient, or perhaps management has not provided clear expectations or training needed to perform a job. Encouraging staff to do more or work harder will not lead to improved outcomes. Staff already are trying their best and working hard. Systems and processes need to be changed to enable staff to be more efficient and effective in their work. Some examples of processes in a nursing home are:

- Admission
- Discharge
- Assessment
- Care Planning
- Medication Administration
- Rehabilitation
- Documentation
- Food Service Delivery
Process improvement is a systematic or scientific approach to studying work and making improvements to how work gets done. It involves fact-finding, not fault-finding, through data collection and root cause analysis to identify and measure the problem and its source. Once the source of the problem is identified, improvement comes through generating solutions that address the root cause of a problem. Solutions are implemented on a trial basis, and tested and revised until they are shown (through data or other means) to result in actual improvement.

B. Steps to Quality Improvement

The steps to quality improvement can be applied to any process that has been selected for improvement.

- **Step 1 – Develop a Goal Statement**
- **Step 2 – Describe Current Process**
- **Step 3 – Root-Cause Analysis**
- **Step 4 – Identify Change That Will Lead to Improvement**
- **Step 5 – Develop Implementation Strategy**
- **Step 6 – Pilot Testing**
- **Step 7 – Evaluate the Pilot Test**
- **Step 8 – Implement Change**
- **Step 9 – Monitor Improvement**

**Step 1 – Develop a Goal Statement**
If the definition of a team is a group of people working together for a common goal then one of the most important tasks of a team is establishing its goals. A goal statement is a brief statement that describes the desired outcomes of the team and provides a sense of focus and direction to the team’s efforts.

A goal statement contains these elements:
- A direction term (i.e., increase, decrease, reduce, lower and develop)
- The specific process being improved
- An indicator or measure of improvement – a measure of success
- The beginning and endpoints or parameters that specify the part of the process the team will focus on

While the team leader and facilitator may write the first draft of the goal statement, the entire team should have input into the statement and agree on the final statement. It is important to remember that goal statements are not cast in stone. Often, once a team begins its work, it uncovers problems it was not initially aware of. The team may then revise its goal statement to reflect a change in focus or goals.

*Worksheet D: Goal Setting* (provided at the end of this chapter) provides additional tips for writing a goal statement.
Step 2 – Describe Current Process
Before jumping to solutions that the team thinks will achieve the goal, it is essential to understand where the real problems are. This is the beginning of root-cause analysis. The team should describe the current activities, methods and people that make up the process that the team wants to improve.

Worksheet E: Current Process Analysis (provided at the end of this section) gives additional tips for defining steps in the current process. Brainstorming and flow-charting, also described at the end of this section, are two techniques that teams can use to ensure that they have described the key components of the process they are trying to improve.

Step 3 – Root-Cause Analysis
Once team members have examined how a process currently works, they can identify the problems in the current process, and most importantly, what is causing those problems.

Some common problems that teams can watch for are:
- Identify bottlenecks (sources of delay) in workflow
- Points of error
- Duplicative work
- Rework and unnecessary work

When problems are identified, the team may want to better understand these problems by asking some basic questions:
- How often do problems occur?
- Where do they occur? (i.e., on certain units or floors?)
- When do problems occur? (Weekdays? Weekends? Evenings?)

The data collection tips in Section II may help answer these questions.

Worksheet F: Root Cause Analysis and Worksheet G: Fishbone Diagram (provided at the end of this section) give additional hints to help your team identify root causes.

Step 4 – Identify Change That Will Lead to Improvement
The team is now ready to proceed with brainstorming solutions for the root causes of problems it has identified. Brainstorming is an effective way to generate many creative ideas to address the root cause of the problem.

Once the team has generated a list of possible solutions, team members can evaluate potential ways to address the problem and select the best solution that will improve the process in question. The team should consider:
- What solutions truly target the root causes we identified?
- What solutions are the most feasible to implement?
- What solutions are the most cost effective?
The team must come to consensus on one solution that addresses the identified root cause(s) to the problem in the process that the team wants to improve. Consensus means that each team member can “live with” the solution, and will support making any changes that are necessary to achieve implementation of the solution.

**Worksheet H: Process Improvement Plan** (provided at the end of this chapter) summarizes the steps for brainstorming and agreeing on a solution.

**Step 5 – Develop Implementation Strategy**
A solution is only as effective as its action plan. A good plan will document the identified tasks to implement the solution, the names of responsible individuals or groups, targeted time frames for completion of tasks, and a way for assessing progress toward the team’s goals. Any change that will be implemented to improve a process should be made first on a small scale, in a “pilot test,” in order to determine whether the change is actually the best solution or way to implement the solution.

When team members are ready to implement their plan in a pilot test, it is important that they communicate the plan to the staff that will be impacted by any changes to work processes. The team can present its plans to managers and staff of affected departments by inviting guests to team meetings to hear about the team’s plans, or by arranging meetings with representative staff from the areas impacted. For example, the team might present brief presentations of its plan to CNAs and nurses on a particular unit. Staff that will be changing their process can provide the team with ideas and suggestions to make implementation of the pilot test go more smoothly.

**Worksheet I: Implementation Strategy** (provided at the end of this chapter) outlines specific questions that a team should answer in developing an action plan for implementing a change.

Section V gives more detail on suggested strategies for implementing changes at your nursing home.

**Step 6 – Pilot Testing**
A pilot test may involve a specific unit, floor or area of the nursing home. A pilot test is a good way to identify potential problems with an implementation plan, and may prompt the team to identify alternative approaches to implementing the proposed change in process, or to test a different solution entirely.

**Worksheet J: Pilot Testing** (provided at the end of this chapter) gives the team opportunity to design its involvement in the implementation of the pilot test and the slight revisions to implementation that are made during the pilot test.
**Step 7 – Evaluate the Pilot Test**

Pilot tests should continue until the team has found a solution, and an approach to implementing it, that results in an improvement. The team can evaluate the pilot-tested solution and its implementation using two criteria:

- Staff reaction to the change. Does staff like the new solution? Do they think that it is an improvement?
- Improved process. Does the solution help achieve the team’s goal?

**Worksheet K: Pilot Test Evaluation** (provided at the end of this chapter) outlines strategies for taking these evaluation criteria into account when evaluating the result of the team’s pilot test.

Repeat Steps 5, 6 and 7 until the team has found a successful solution and implementation strategy to implement nursing home-wide.

**Step 8 – Implement Change**

Once the pilot-tested solution demonstrates successful results, the team then proceeds with the implementation of the solution on a nursing home-wide basis. It is the responsibility of the team to implement its solutions, but it is crucial that leaders in the nursing home provide the team with resources and visible support for implementation. As in the pilot test, communication with all staff impacted by the change is necessary for successful implementation.

Use **Worksheet I: Implementation Strategy** to design the implementation of a change in process across all units/floors in the nursing home.

**Step 9 – Monitor Improvement**

The team should continue to meet (less frequently, perhaps on a monthly basis) to monitor and evaluate the implementation of its solutions. As in the evaluation of the pilot test, monitoring will involve collecting data on staff’s reaction to the change, and data on whether the change resulted in process improvement. Unlike a one-time evaluation, the focus of ongoing monitoring is to determine whether the new process can be sustained over time.

**Worksheet L: Ongoing Monitoring** provides a sample of how a team may collect data to monitor implemented changes. Monitoring the results of a new process should occur frequently at first, and then taper off.

If the new process does not produce the desired results, or if other problems arise with implementation, the team should reconvene and discuss how to proceed. The team should review its work and discuss the following possibilities:

- Is there another root cause of the problem that was not addressed?
- Should other solutions be revisited?
• Are problems of implementation related to the solution, or the result of a poor strategy and method for implementing the solution?

This “troubleshooting” should help the team decide whether to revise its implementation strategy or design another solution to implement. If the new process does produce the desired results, the team should be recognized and rewarded for achieving its goal. The team should also discuss how to hold the gain. This may require ongoing education of staff, changes to policies and procedures, and continued monitoring. If a team has been effective in making desired improvements, monitoring may be continued through the nursing home’s existing QA/QI Committee.

C. Quality Improvement Techniques and Tools for Teams

As the team works through the steps to quality improvement, several tools and techniques may prove helpful for the team to maximize its creativity and effectiveness. These techniques and tools are described in the following pages.

**Brainstorming**

Brainstorming is a technique used by teams to generate creative ideas in a short period of time by moving quickly and remaining uncritical. “Anything goes” when brainstorming – that is, team members are encouraged to share ideas that otherwise may be viewed as crazy, wild, far-fetched or impossible to implement. Teams often use brainstorming to generate lists of problems, causes or solutions.

**Tips:**

- The team leader states the topic
- Each team member shares one idea at a time – anything goes
- The process moves quickly
- There is no discussion or evaluation of ideas as team members share their ideas
- The team leader (or facilitator) records on a flip chart the ideas as they are stated so that the ideas are always in full view of all team members
- Members continue to take turns sharing ideas until they have no more ideas, at which point they simply say “pass”
- Brainstorming continues until all members have “passed”

When team members have completed the brainstorming activity, the team leader repeats each idea and asks for comments, clarification or discussion. During this process, duplicative ideas are typically eliminated and similar ideas are combined.
**Multi-voting**
If the list of brainstormed items is too long (i.e., more than 15 items), the team may wish to utilize a voting technique called multi-voting to help them narrow down the list and come to consensus on one particular root cause of a problem or one proposed solution.

Multi-voting is a way to select the most important items from a list of ideas. This is accomplished through a series of votes, each cutting the list down until a workable number of items are reached.

**Tips:**
- Combine similar ideas and eliminate duplicative ideas
- Number all items
- Team leader reads each item and asks the team members to vote on whether the item should remain on the list
- After the first round of voting, the items with the fewest votes are eliminated
- Voting is repeated, each time eliminating items with the fewest votes until the team reaches a manageable number of items

**Flow Charting**
Flow-charting is a technique for mapping steps in a process. It helps a team understand how a process actually performs, i.e., how work actually gets done. It can be used to educate and inform others as to how a department operates.

When used by a quality improvement team, the flow chart becomes a diagnostic tool. By creating a detailed flow chart to describe every step in a process, a team can better understand where problems in the process arise.

Most flow charts use specific symbols to illustrate different types of steps in a process. Sample components of a process are:

**Input(s)** – Materials information or action that starts the process
**Output(s)** – Shows the results or end of the process
**Arrows** – Shows the flow of the process
**Actions** – Tasks are performed in the process
**Decisions** – Places in the process where a yes/no question is asked
**Waits** – Places in the process where there is a wait for further action
**Loops** – Paths that take you back or ahead to other steps

**Tips:**
- Label each flow chart with the title of process, the name of the team that created the flow chart and the date
- Define the boundaries (i.e., beginning and end point) of the process that is being considered for improvement
- Use standard symbols to represent the different types of steps in the process performed
- Capture all steps in the process, including as much detail as possible
- Begin constructing the flow chart during a team meeting; however, team members may discover more or different steps in the process while they are working. Team members can revise or add different steps to the flow chart at subsequent team meetings.
- Use self-stick removable paper to draw flow chart. It is less messy and is easier to move around. If it gets too messy you may need to redefine the beginning and end points.

**Questions to Ask when Constructing a Flow Chart:**
- What are the beginning and end points?
- What happens next?
- Do you do anything else in between these two steps?
- Does it always happen this way?

---

**Flowchart Symbols**

- Input, Begin
- Action, Do
- Decision
- Output, End
Diagnosing Problems with a Flow Chart – Look for:
- Omission of work that should be done but is not being performed
- Sources of errors
- Duplicative steps
- Bottlenecks
- Rework cycles
- Waits
- Delays
- Complexity

Ask at each step in the process:
- Is this the ideal?
- Can it be improved?
- Are there problems?
**Check Sheet**

This tool is a simple data collection tool that is used to measure the frequency of occurrences, errors, problems or other events. This is the first step in detecting patterns about how often certain events occur.

Sample:

![Check Sheet Table]

**Tips:**
- Collect data on paper as you go (as work is being performed)
- Identify specific information/categories you wish to identify (e.g., count errors, missing information, type of resident, month, week, unit, technique, etc.)
- Use a “slash” mark to count
- Total rows and columns
Cause & Effect Diagram (Fishbone Diagram)
This type of diagram (also described on Worksheets F and G) is used to explore and display the root causes of a specific problem or condition. When identifying possible root causes, it is often helpful to ask why each one exists. Asking “Why?” as often as necessary to discover the true root cause(s), and documenting them on this diagram, is the purpose of this tool.

Tips:
- State the problem under investigation in very specific terms and document it at the “head” of the fish.
- Label each “bone” of the fish with possible categories of causes of the problem. Identifying multiple categories can help the team think of more than one type of cause of the problem.
- Suggested categories (see graphic on next page for example):
  - Methods
  - Policies/procedures
  - People/manpower/employees
  - Equipment
  - Material supplies Environment
- Brainstorm root causes using the brainstorming technique described above.

Worksheet D:
Goal Setting

- A goal is a clear statement of the intended improvement and how it is to be measured
- Use your goal statement to stay focused, to establish boundaries for what is and is not included in your team’s work, and to define success
- Post your goal where it is visible at every team meeting

Write a goal for improvement:
- Your goal should:
  - Answer the question, “What do you want to accomplish?”
  - Be measurable
  - Be short so that everyone can remember it
- Does not include how you will achieve goal
- May include a beginning and end date
- Your goal may be taken directly from an item on the Facility-Assessment checklists

Example: Increase number of care plans that provide for medication on a regular schedule (e.g., around the clock), not just PRN, (for residents with daily pain) from 50% to 75% over the next two months.
Worksheet E: Current Process Analysis

- A process is a series of activities or steps that is meant to achieve a particular result.

- When defining a process, think about staff roles in the process, the tools or materials staff use and the flow of activities.

- Everything is a process, whether it is admitting a resident, serving meals, assessing pain or managing a nursing unit. The ultimate goal of defining a process is identifying problems in the current process.

Have the team identify and define every step in the current process that the facility has chosen to improve:

Tips:
- Take time to “brainstorm” and listen to every team member.
- The process must be understood and documented.
- Make each step in process very specific.
- Use one Post-it note, index card or scrap piece of paper for each step in the process.
- Lay out each step, move steps, add and remove steps until team agrees on final process.
- If the problem is that a process does not exist (e.g., there is no current process to screen for pain upon admission and readmission), then identify the related processes (e.g., the process for admission and readmission).
- If process is different for different shifts, identify each individual process.

Example: Process for making buttered toast

<table>
<thead>
<tr>
<th>Step</th>
<th>Define</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Check to see if there is bread, butter, knife and toaster.</td>
</tr>
<tr>
<td>2</td>
<td>If supplies are missing, go to the store and purchase them.</td>
</tr>
<tr>
<td>3</td>
<td>Check to see if the toaster is plugged in – if it is not, plug in the toaster.</td>
</tr>
<tr>
<td>4</td>
<td>Check setting on toaster – adjust to darker or lighter as preferred.</td>
</tr>
<tr>
<td>5</td>
<td>Put a slice of bread in toaster.</td>
</tr>
<tr>
<td>6</td>
<td>Turn toaster on.</td>
</tr>
<tr>
<td>7</td>
<td>Wait for bread to toast.</td>
</tr>
<tr>
<td>8</td>
<td>When toast is ready, remove from toaster and put on plate.</td>
</tr>
<tr>
<td>9</td>
<td>Use knife to cut pat of butter.</td>
</tr>
<tr>
<td>10</td>
<td>Use knife to spread butter on toast.</td>
</tr>
</tbody>
</table>

Write the steps of our defined process on the other side of the page or attach additional sheet. (Over)
Current Process Analysis (cont.)

Team discussion

Evaluate your current process as you define it:

What policies and procedures do we have in place for this process?

What forms do we use?

How does our physical environment support or hinder this process?

What staff is involved in this process?

What part of this process does not work?

Do we duplicate any work unnecessarily?

Are there any delays in the process? Why?

Continue asking questions that are important in learning more about this process.

When you discover a problem in your current process, continue to Worksheet F: Root-Cause Analysis, to determine the root cause(s) of the problem.
Worksheet F:
Root-Cause Analysis

- The root cause analysis allows you to identify the “root” of the problem you discover in your process – where and why the problem exists.

- You can then make decisions based on data rather than “hunches” and look for lasting solutions rather than relying on “quick fixes” and “Band-Aid” approaches.

1. Begin with brainstorming:
   - All factors of the problem are considered. “We don’t assess for pain because…”
   - Once all factors are listed and developed, they should be categorized.
   - Then you can create a “cause and effect” diagram, such as a Fishbone Diagram (explained below).
   - General categories for causes are: Environment, Equipment, People, Methods (Processes) and Materials.

2. The Fishbone Diagram
   - The cause and effect diagram (Fishbone) starts with the problem at the head of the fish.
   - Under each general category of the Fishbone, answer the question “why?” in regard to the problem identified.
   - Once the Fishbone Diagram is completed, the various causes are discussed to determine the root of the problem – or the real reasons why the problem exists. It is from the result of this discussion that the focus for the improvement plan begins.
Worksheet G:
Fishbone Diagram

Goal: _________________________________

Environment   Equipment   People

Methods/Processes   Materials

Problem in Process

47
Worksheet H:  
Process Improvement Plan

Identify a manageable change based on the outcome of root cause analysis. What will we do/change to address the root of the problem?

1. Identify criteria that will help evaluate potential solutions to the problem, such as:
   • Cost
   • Potential facility/resident/staff benefits
   • How easy it would be to implement

2. Brainstorm all potential solutions before rejecting any ideas.

   Use this space for brainstorming:

3. Evaluate a few solutions listed above. Don’t be afraid to combine ideas! Come to a team consensus on the best solution to test.
   • Consensus means that each team member can “live with” the solution.

4. Write consensus decision on one process change or improvement to make:

   ________________________________________________________________
   ________________________________________________________________
   ________________________________________________________________
   ________________________________________________________________
   ________________________________________________________________

   48
Worksheet I:
Implementation Strategy

- Identifies how we will accomplish change.
- Planning will help coordinate the activity of the team.
- The implementation strategy includes how the change will be communicated, implemented and evaluated.

1. Create an implementation strategy that incorporates the following questions:
   - **What** is the change?
   - **Why** has the team suggested this change? What is the goal?
   - **Who** will be involved in the change? Are there other staff members who may be affected by this change?
   - **Where** will the change take place? Remember to start small!
   - **When** will the change be made (start date)?
   - **When** will it be evaluated (evaluation date)?
   - **How** will it be evaluated – how will we know if we can expand this change to other areas?

2. Implementation Strategy:

   _______________________________________________________
   _______________________________________________________
   _______________________________________________________
   _______________________________________________________
   _______________________________________________________
   _______________________________________________________
   _______________________________________________________
   _______________________________________________________

   Communication is the key!
   - **Share** the answers to the above questions with the staff who will be involved in making the change.
   - **Talk** about the change positively.
   - **Ask** for feedback on how to implement the proposed change.
Worksheet J: Pilot Testing

- Pilot testing gives your team a chance to see how to implement a change on a small-scale.
- Pilot testing can also give our team some early results, to see if the change you make has any impact.
- The team has a role to play in helping to implement any change that is recommended.

What can the team do to make the change happen?

Who will train staff? ____________________________

Who will update/revise/remove tool, if necessary? ____________________________

Who will monitor to see if process has changed? ____________________________

Who will team contact if they need support implementing change? ____________________________

Who will audit outcome of process change? ____________________________

Additional team roles: ____________________________

Indicate here any revisions to the implementation strategy that the team makes during the pilot-test:
Worksheet K:
Pilot Test Evaluation Worksheet

- Evaluating the pilot test allows your team to organize observations that it has made through the pilot test.
- Evaluation also includes collecting data to check whether the change has helped you reach your goal.

*Ask these evaluation questions at a team meeting, a staff meeting, in an anonymous questionnaire or via informal communication with staff.*

1. Do we need to reevaluate our initial goal?

2. What is working well? Why?

3. What is not working? Why not?

4. What can be done differently?

5. Do we need to revise the materials we are using (if any)?

6. How does staff feel about the change in process?

7. Are residents positively affected by the change in process?

See next page
Pilot Test Evaluation Worksheet (cont.)

Collect data to evaluate change.

Has the change (in process, in form, etc.) had an impact? The chosen measure for evaluation can be taken directly from an item on the Facility-Assessment Checklist (if applicable) used to begin this project.

Example: 5 out of 5 new admissions have completed assessment forms within 24 hours
Example: 5 out of 5 call lights received response within X minutes

Goal:

Data source (medical records, staff survey, etc.):

Example:

<table>
<thead>
<tr>
<th>Date</th>
<th>Chosen measure for evaluation (e.g., assessment for new admission is completed within 24 hours. See Facility-Assessment Checklists for possible measures.)</th>
<th># of cases reviewed (A)</th>
<th># of cases with positive results (B)</th>
<th>B out of A (B/A)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Continue data collection as often as desired during the pilot test.

Results

Dates of pilot test: ____________________________________________

Did team reach its goal? ( ) Yes ( ) No

Does the team need to revise the process or make changes? ( ) Yes ( ) No

If yes, what changes? Repeat the pilot test if necessary.

If no, continue to Worksheet I to design implementation strategy facility-wide.
Use Worksheet L to monitor improvement once a change to the process has been implemented.
Worksheet L: Ongoing Monitoring

- Monitoring the implemented change allows your team to evaluate, on an ongoing basis, whether or not the implemented change has made an impact on overall care delivery.
- Decide who on staff will perform tracking related to the facility-wide implementation.
- Decide when this monitoring will be completed (i.e., monthly, bimonthly, and quarterly).
- Decide on how this data will be collected and evaluated.

Goal:
Ex.: Pain assessments will be completed on all residents within 24 hours after admission.

Date of facility-wide implementation: ________________________________

How will you know if you have achieved implementation?
Ex.: We will know when 10 out of 10 admissions/readmissions this month show that a pain assessment was completed upon admission/readmission.

We will know when ________________________________

Record findings:

<table>
<thead>
<tr>
<th>Date</th>
<th># of cases reviewed (A)</th>
<th># of cases with positive results (B)</th>
<th>B out of A (B/A)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Review the following:
1. Based on the data collected, check to see if the process has been implemented 100%. If it has, continue to monitor as long as the team feels necessary.

2. Based on the data collected, check to see if implementation of the new (improved) process has had an impact on the delivery of care. If it has not, you may wish to explore the following questions:
   a. Has the process been successful on some shifts or units, and not on others? If so, why?

   b. Is further staff education needed? In what areas?

   c. Does the process need to be revised for facility-wide implementation? If so, plan a pilot test of some revision to the process. Use these worksheets to plan the pilot test if necessary.
Worksheet for Testing Change

**GOAL:** (Overall goal you would like to reach)

Every goal will require multiple smaller tests of change

<table>
<thead>
<tr>
<th>Plan</th>
<th>Describe your first (or next) test of change</th>
<th>Person Responsible</th>
<th>When to be done</th>
<th>Where to be done</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>List the tasks needed to set up this test of change</th>
<th>Person Responsible</th>
<th>When to be done</th>
<th>Where to be done</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Predict what will happen when the test is carried out</th>
<th>Measures to determine if prediction succeeds</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>1.</td>
</tr>
<tr>
<td>2.</td>
<td>2.</td>
</tr>
<tr>
<td>3.</td>
<td>3.</td>
</tr>
<tr>
<td>4.</td>
<td>4.</td>
</tr>
</tbody>
</table>

**Do** Describe what actually happened when you ran the test of change.

**Study** Describe the measured results and how they compare to the predicted results.

**Act** Describe what changes to the plan will be made for the next cycle from what you learned.
Section V – Using Techniques to Implement Change

Section outline:
A. Techniques to Implement Change
B. Designing an Implementation Plan
C. Overcoming Barriers to Change

A. Techniques to Implement Change

Staff education is the technique that most nursing homes use to implement a change in policy or process. However, a one-time educational program or in-service alone is usually not enough to ensure that staff change habits or processes. While education is necessary to communicate to staff why the team thinks that this change will lead to an improvement, and the improved process will be implemented, other methods of reinforcing new ideas must be utilized in combination with traditional education.

The following is a list of activities that a Quality Improvement Team may want to try in combination, in order to implement the proposed solution or new process.

When the change requires new staff knowledge:

• Provide written material to staff on new clinical information. Written information may need to be tailored to different audiences (e.g., nurses, CNAs, activity specialists).
• Utilize a clinical specialist to educate staff, and encourage staff to consult with the clinical specialist on an as-needed basis.
• Establish a mentoring system between staff members that have mastered the new process/technique/information and staff members who are learning.
• Videotape staff meetings and trainings. The videos can then be made accessible for those who are unable to attend or who need “refreshers.”

When reinforcing a new process

• Develop opportunities for staff to share their tips and lessons learned (or “good practices”) for implementing the new process.
• Write and distribute memos on how to implement “good practices.”
• Post visual reminders about the new process in the nursing home, in paycheck stuffers and newsletters.
• Send reminder voice mail messages to staff.
• Develop measures for monitoring implementation of the new process and communicate the progress made.
• Place a “question box” in a prominent location in the nursing home so that staff can ask anonymously about new changes. Post the questions and answers on a bulletin board where staff usually spends time (e.g., the break room or restrooms).
• Designate key team members or others who can answer questions about a new process or policy, and advertise who they are to the entire staff.
• Reward positive performance – don’t overlook the “stars” who are designing and implementing improvements.

When the change has demonstrated that it leads to improvement:
• Develop and disseminate new (or revised) clinical policies or procedures. If the new policy clearly articulates how the process should be changed, it becomes an important written reference document for current staff and incoming staff. It also reflects an institutional commitment to implementing the new process because it is a marked improvement.
• Write (or revise) and implement clinical pathways or practice guidelines.

Other tips for educational training:
• Explain the “big picture.” Staff members are usually more receptive to learning if they understand the context of the new material. When they understand how a new process fits into the “big picture,” they may have more motivation to implement the change.
• Include visual aids. In a group setting, some people are primarily visual learners, so it’s a good practice to have staff members see as well as hear about new information or new changes.
• Start with the “known” and move to the “unknown.” This is an effective teaching approach that establishes common knowledge that is comfortable to staff members before introducing new material.
• Show support for new ideas or changes. Learners respond more positively to new ideas if they think that the presenter believes in them and finds value in them.

B. Designing an Implementation Plan

The team may choose several of the techniques described above to implement a change in process. An implementation plan helps the team effectively organize the steps necessary to accomplish the activities to implement a new process.

Utilize the sample implementation plan on the next page as a planning tool to:
• Identify and prioritize changes that the team proposes to make in order to achieve the goal.
• List as many action steps as necessary to make the change, with specific “start” and “finish” dates for each step.
• Assign team member to carry out specific steps.
• Determine monitoring measures and frequency of monitoring. The purpose of monitoring is to assure that implementation occurs as it has been scheduled and planned.

The team should also discuss:
• Estimates of costs and staff resources to implement the new process.
• An assessment of the risks. When teams implement a new process or make a modification to a process, there is always a risk that the new process will not be an improvement. One way to reduce the impact of this potential risk is to identify areas where something could go wrong during implementation, and then plan for action if that risk becomes a reality.
## Planning Tool

<table>
<thead>
<tr>
<th>Change to be made</th>
<th>Action Steps</th>
<th>Time Frame</th>
<th>Responsible person(s)</th>
<th>Monitoring measures and frequency of data collection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Start</td>
<td>Finish</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Add more rows as necessary
C. Overcoming Barriers to Change

Barriers are an inevitable part of the implementation process, but a Quality Improvement Team and other leaders at your nursing home can anticipate them and design strategies to overcome them.

**Barrier:** Managers and/or department heads that resist staff attendance at team meetings and do not endorse testing the changes that the Quality Improvement Team suggests making to certain processes.

**Winning strategy:** Nursing home administrators must address managers who do not demonstrate commitment to improvement, by demonstrating that testing changes that may lead to improvement is a top-priority activity in the nursing home. Managers that resist changes made to processes may feel that their authority is being threatened, or feel insulted that others perceive a need to change. These individuals need assurance from their supervisor(s) that quality improvement is a continuous activity, and that even good processes can be improved.

**Barrier:** Staff turnover or position vacancy can break apart a team by hindering consistent attendance at team meetings, or by weakening the ability of staff to learn a new process while staffing patterns remain unstable.

**Winning strategy:** To combat the impact of staff turnover and temporary staff absences on quality improvement efforts, teams should involve all levels of staff, staff from several departments and both new and veteran staff. Involving staff on teams is one way to retain staff, giving them a voice in their work.

**Barrier:** Staff members perceive that “now is the wrong time to start something new” or that they do not have time to focus on quality improvement efforts. Staff have conflicting priorities for how to spend their time, and say that, “I have too much on my plate,” “I can’t do anything more,” “I have to cover the floor and take care of residents” or “The state is due in any day for survey – I have to focus on that.”

**Winning strategy:** Ask staff what they consider to be activities that are important enough to spend time on. Then ask whether it would help them to make improvements in those activities – improvements that might save them time. If they agree that improving important activities is a priority to them, then the investment in quality improvement activities like team building and process improvement is a natural priority. Also discuss with managers how they can create time in the staff schedules for attending team meetings, collecting necessary data and implementation planning.
Section VI – Using Leadership to Sustain Change

Section outline:
A. Role of Leadership in Quality Improvement
B. Quality Improvement Teams and Nursing Home Leaders
C. Sustaining a Culture of Quality Improvement
D. Communicating Quality to External Customers
E. Reinforce the Desired Results
F. Next Steps

A. Role of Leadership in Quality Improvement

Strong and supportive leadership is often cited as one of the key ingredients necessary to initiate and sustain quality improvement activities at a nursing home. Corporate management, boards of directors, administrators and key management staff all play a role in creating the vision for continuous quality improvement and in making staff's involvement in quality improvement activities a priority. Leaders at nursing homes are important in setting goals for improvement, promoting the principles of quality improvement and coaching teams in the techniques and tools of quality improvement. It is crucial that leaders understand quality improvement, believe in it and make that visible to staff.

Below is a list of some concrete things that nursing home leaders can do to establish a firm quality improvement culture:

- Set quality as a top priority, and clearly communicate that to staff, residents and families.
- Articulate the values and culture of the nursing home to staff and residents. In organizations with a strong sense of purpose and mission, employees know why they are going to work and how they can excel at their jobs.
- Reinforce values through personal role modeling. Leaders talk about quality, listen to staff and hear what they say, follow through on suggestions, participate in orienting new staff and advocate for quality improvement teams.
- Set the tone for the nursing home through their attitude – a confident smile and a powerful stride convey important messages to staff about how the leader feels about the nursing home.
- Invest in staff so that staff will invest in the nursing home. For example, leaders spend time training all staff (not just managers) on quality improvement principles and problem-solving techniques.
- Provide necessary resources to support quality improvement activities – team members may need time for team meetings, data collection tools, binders to document team progress, materials to communicate to staff, and resources to provide rewards to nursing home staff that make improvements.
- Communicate the progress of teams to all staff through newsletters, staff meetings, bulletin boards, paycheck stuffers, etc.
- Celebrate and recognize team effort and employees' quality achievements.
B. Quality Improvement Teams and Nursing Home Leaders

In order for teams to design changes or new processes to achieve their goals for improvement, teams need to know what they have the ability to change and what they cannot change. Quality improvement leaders in their nursing home (the administrator, managers, and/or the quality assessment/improvement committee) must outline for the team broad areas that the team can propose changes to (e.g., forms, workflow) and those areas that the team cannot change (e.g., raising salaries $10.00/hour).

It is important that team members provide status reports of their progress to nursing home leaders, so that leaders hold teams accountable for their progress, and so that teams have an opportunity to seek assistance from leadership when necessary. During these progress reports, teams can share any problems or roadblocks they have encountered. Nursing home leaders have the power to remove obstacles to the team’s progress. Maintaining open communication between teams and leadership is critical to ensuring that teams stay within the scope of their project and on track, and that nursing home leaders give teams every opportunity to succeed. Developing a schedule for regular reports from teams can also help sustain the momentum of the quality improvement team’s work.

C. Sustaining a Culture of Quality Improvement

One of the most difficult aspects of a quality initiative is sustaining the improvement. Often we make improvements in care practice, only to stop assessing the process and later finding that the gains have not been sustained. Consider the following suggestions in developing a plan to sustain gains made by your quality improvement teams:

- Make use of your state Quality Improvement Organization (QIO), professional and trade associations for ongoing updates to clinical and quality improvement resources.
- Keep communication about quality improvement activities fresh (e.g., update bulletin board often).
- Change the Implementation Team to a Sustainability Team. This team will keep oversight for pressure ulcer prevention practices on an ongoing basis. Actively seek new members for teams – team members get tired.
- Celebrate and recognize team efforts.
- Appoint mentors to orient new staff to the quality improvement activities that are happening throughout the nursing home.
- Continuously seek input from staff, residents and families on how quality improvement activities should continue.

D. Communicating Quality to External Customers

One strategy for sustaining a culture of quality improvement in your nursing home is to talk about your nursing home’s quality improvement activities with residents, families, the media and other
community members. When you promote your staff’s quality improvement efforts to these “external customers,” you demonstrate to your staff that you value what they are doing. Discussing quality improvement with these external customers is also a key strategy for answering questions that the public may have about your nursing home based on quality of care data that is available on websites such as CMS’ Nursing Home Compare (www.medicare.gov), state government websites and privately-run websites. The recent increase in the amount of publicly-reported data that is available about your nursing home creates opportunities for the public to become informed about your nursing home, and gives you an opportunity to showcase your quality of care and quality improvement activities.

Communicate with residents and their families often, via:
- Informational letters
- Family Council meetings
- Resident Council meetings
- Newsletters

Help your staff to communicate a consistent message to residents and families about the quality of care at your nursing home by keeping them informed about the publicly-reported data that is available for your nursing home (e.g., CMS’ Quality Measures). Offer them assistance in interpreting quality of care data so that they can speak comfortably about the clinical care that they provide, how it is reflected in the numbers and ongoing efforts to make improvements at your nursing home.

Some suggested means of communicating with staff are:
- Department head meeting/discussions
- Staff meetings
- Small group discussions with key managers
- Informational discussions with Medical Director
- Written material posted near employee lounge, time clock, etc.
- Newsletter
- Payroll stuffer

E. Reinforce the Desired Results

Generating and maintaining excitement about change is critical to success. Given the difficulty in improving care, it is important that small successes be rewarded. An example could be a framed certificate the first time the skin documentation form is completed correctly. In addition to rewarding during the change process it will also be important to reward during the sustaining phase. The key is to find small and regular ways to recognize when unit staff members do the right thing.
• Reward changed behavior at the unit level: For example, you might start by giving certificates to the units completing all necessary charting on time. Next you might want to raise the bar and reward for no new skin breakdown in past month. Post results and comparative information for units and for the facility in general.

• Reward changed behavior at the individual level: For example, you might ask Unit Champions to nominate a staff member (from a variety of disciplines) quarterly to receive recognition as an individual who made a difference in pressure ulcer prevention.

F. Next Steps

To summarize, leaders do the following:
• **Energize** staff to envision changes that lead to improvements
• **Enroll** staff to participate in making improvements
• **Engage** staff in dialogue about where improvement is needed and how it can be accomplished
• **Empower** staff to propose new ideas and make changes
• **Educate** staff on principles and techniques of quality improvement
• **Enable** staff to invest time in quality improvement activities
• **Express** thanks to staff for doing a quality job

Leaders are critical to implementing quality improvement in their nursing homes, but they can’t do it alone. Using the resources in this book and the resources available from other quality improvement-related organizations, you will develop professionally and achieve the vision and goals for quality in your nursing home.