Performance Improvement

Basic Skills
for New PI Coordinators & Directors

April 2011
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Quality Management History and Philosophy

What Does “Quality” Mean to You?

1950’s
“The Father of QM”, Dr. W. Edwards Deming; post-WWII reconstruction in Japan

Quality = \frac{\text{results of work}}{\text{total cost}}

1965-1979
Zero Defects (P.B. Crosby; ITT)

1980’s
Outcomes-based management: achieving desired outcomes

1980’s
CMS Quality Assurance: achieving an acceptable failure rate

Deming: Out of the Crisis; 14 Key Principles for Continuous QI (CQI)

LEAN Production System (John Kravcik): eliminate waste, add value

1990’s
Total Quality Management (TQM): build quality into processes and systems

JCAHO moves from QA to Quality Improvement (QI): continuous improvement

“Quality, after all, is not an end in itself, but the strategic method that the hospital uses to effectively and efficiently perform its mission.”

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History and Philosophy, cont

1990’s  JCAHO moves from QI to Performance Improvement: “performance is more objectively measured than quality”

Six Sigma: reduce the failure rate to less than 3.4 defects in a million opportunities

2000s  CMS: the Value of healthcare = quality multiple measurement systems cost

2001  The Toyota Way 2001 (ie, “LEAN”; Dr. Jeffrey Liker): key principles for continuous improvement and respecting people

2005  Institute of Medicine, Crossing the Quality Chasm: Quality care is care that is safe, effective, patient-centered, timely, efficient, and equitable

2007  Secretary Leavitt, HHS: Quality care is care that is delivers…. “the right treatment to the right patient at the right time, every time.”

Balanced Scorecard and renewed interest in Lean Process Management

The Distilled Quality/Performance Improvement Philosophy

⇒ The performance of any organization can and must be continuously improved;
⇒ The quality of decision-making improves when it is based on objective information;
⇒ Top leadership support is fundamental to success;
⇒ Team work and cooperation are essential;
⇒ Value and respect people;
⇒ To settle for anything less is an unacceptable management position.
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The Basics: The Scope of a Quality Management Program

Quality Management in a healthcare setting covers a broad range of activities, including:

- meeting and exceeding the needs and expectations of customers;
- improving patient care processes and systems;
- improving all of the organization’s daily operations.

Customers

⇒ Internal Customers the direct recipients of work: patients and their families, staff (including contract and per diem staff, students, medical staff, Board members, etc)

⇒ External Customers the indirect recipients of work: regulatory surveyors (federal, state and local), insurance carriers, product vendors and members of the community can be external customers.

Patient Care Processes and Systems

⇒ Process the sequential steps you take to do a job, task, or work
  (ex: the steps you take to pass meds safely, or to admit a patient)
⇒ System a group of related processes
  (ex: the entire medication use system, which includes ordering, dispensing, administration and monitoring patient effects)

Improving patient care processes and systems can include activities for the purpose of:

- Improving clinical care delivery and clinical support services (ex: adopting protocols)
- Implementing new patient care and/or testing technology (ex: digital mammo)
- Reducing healthcare-associated risks (mortality, HAIs, medical errors, readmissions, etc)
- Identifying new health care markets and developing the ability to serve them

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The Basics: Program Scope, cont

Hospital Operations

There are other processes and systems in the hospital which less directly impact the patient’s experience and quality care, but they do have an impact and are equally important to monitor for maximum efficiency and effectiveness. Frequently referred to as patient support systems, these can include:

- Communication systems, both within and with those outside the organization
- Billing and collections; patient statements and balance sheets
- Financial and investment functions
- The building/Environment of Care (EOC), fire safety and emergency preparedness
- Human Resources
- Information Management (including electronic medical or health records)
- Materials Management (purchasing, supply)
- Medical Staff Support Services
- Marketing, market share and community relations
The Basics: The 4 Step Improvement Cycle

Is it Plan, Do, Check, Act (PDCA)........
or Plan, Do, Study, Act (PDSA)?

PLAN-DO-CHECK-ACT (PDCA)

PLAN for changes to bring about improvement
- Customer/supplier mapping
- Flowcharting
- Pareto analysis
- Brainstorming
- Nominal group technique
- Solution/Fault tree
- Evaluation matrix
- Cause & Effect diagrams

DO changes on a small scale first to trial them
- Small-group leadership skills
- Experiment design
- Conflict resolution
- On-Job training

ACT to get the greatest benefit from changes
- Process mapping
- Process standardisation
- Controlled reference information
- Formal training for standard processes

CHECK to see if changes are working and to investigate selected processes
- Data checksheets
- Graphical analysis
- Control charts
- Key performance indicators
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The Basics: The 4 Step Improvement Cycle, cont

**PLAN-DO-STUDY-ACT (PDSA)**

![PLAN-DO-STUDY-ACT Diagram]
The 4 Step Improvement Cycle

1. Review of occurrence/incident reports reveals you have 15 falls in one month in your facility. Is this acceptable performance, or do you have an opportunity for improvement?

2. What next steps do you take in planning for improvement?

3. What actions will you take to trial your improvement plan?

4. How will you know whether or not improvement has been achieved?

5. Is the improvement you achieved ‘enough’?

6. What steps will you take to permanently implement the improvement actions?
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The Basics: Roles and Responsibilities

Tip for Coordinators:

The facility’s organization chart clarifies roles and responsibilities

Diagram:

- Board of Directors
  - Governing Board
  - Chief Executive Officer
    - Administrator
  - Medical Staff
    - Chief/Director
- Departments
  - Services
- Quality Management
  - Performance Improvement
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The Basics: The 4 Step Improvement Cycle, cont

An Organization Chart for the Quality Management Program

Quality Management

Customer Needs and Expectations
  - Patients, families
    - Satisfaction, complaints
  - Staff and Medical Staff
    - Satisfaction surveys
  - Community
    - Needs assessment surveys
  - Regulators
    - Regulatory surveys

Patient Care Systems
  - Patient Care Service or Department
  - Diagnosis Specific
    - AMI, HF, CAP, SCIP, Stroke
  - UR, Peer Review
    - Case Management, deaths
  - Patient Safety
    - Med Use, Surgery, HAIs, Falls, P Ulcers
  - Risk Management
    - Complaints, Occurrences, claims

Hospital Operations
  - Financial Performance
  - Building, Safety
    - Environment of Care & Emergency Preparedness (EOC)
  - Human Resources
    - Staff qualifications, competency, criminal record
  - Information & Materials
    - HIM, eHR, Supplies, Purchasing, HIPAA, recalls
  - Marketing, Foundation
The Governing Board/Board of Directors Role and Responsibilities

“The CAH has a governing body that assumes full legal responsibility to provide quality health care in a safe environment.”

Tag C-0241, Condition § 485.627(a)

According to the State Operations Manual for CAHs, the specific duties of the Board of Directors (Governing Board) in Quality/Performance improvement include:

- Determining the eligibility of applicants for medical staff appointment and/or clinical privileges for the organization
- Reviewing and approving the Medical Staff Bylaws
- Ensuring the organization is in compliance with all Federal, State and Local laws, including the Medicare Conditions of Participation (COP) if the facility is participates in that program.
- Providing resources for an effective quality management program

The Board also has a legally-recognized duty to the community to make decisions for them that are in the best interest of the community (ie, the Board’s “fiduciary duty”).

The Governing Board’s Strategic Plan

In order to make sound decisions on behalf of the community, the Board works to ensure there is a plan for how to go forward into the future. This plan is called the strategic plan. You will find the plan always includes financial management strategies. It also typically includes strategies for improving performance, generated by reviewing past performance and by asking itself:

What do we need to do to meet and exceed our customers’ changing expectations of us (both internal and external customers)

How can we improve patient care systems and safety?

What hospital operations need to improve so that we can maintain and/or improve our hospital’s viability in the future and fulfill our mission?
Board’s Evaluation of Strategic Plan Implementation Progress

Board members, in the course of meeting their fiduciary obligation, will need to evaluate and come to agreement on how well the organization is doing in progressing towards its strategic plans and goals.

In order to do that in an objective way, they will need to review current and/or historical data collected for identified measures of the organization’s performance that have been intentionally linked to the strategies, goals and/or objectives of the plan.

The data for these key measures are often presented to the Board in what is called a dashboard report format. This format presents high-level performance measures displayed in a way that enables rapid identification of strategies for which performance targets are being met, and those strategies needing an adjustment in approach to enable the facility to accomplish them.

In routine practice, the CEO/Administrator oversees the daily operation of the facility for the Board. The CEO plays a defining role in strategy identification, implementation of strategic goals and objectives, and defining measures of performance relevant to the strategic plan that will be reported on a regular basis to the Board. The CEO often presents this dashboard report.

The Quality Coordinator/Director will often assist the CEO/Administrator in preparing this part of his/her report to the Board. Some CEOs call upon by the Quality Coordinator/Director to prepare the report and present it to the Board, as well as assist them with interpretation of the data.

**Tip for Coordinators:**

* Link the required CAH Periodic Program Evaluation to the Board’s strategic plan and reporting.
* Include some or all of the Board measures into your Periodic (Annual) CAH evaluation documentation.
* Ask your Periodic Evaluation team to make an informed decision about whether or not the CAH Program is effective by reviewing them.
* Document their conclusions as well as any suggestions for improving progress.
* Develop any new measures for the Board’s report that are needed to monitor progress throughout the coming year.
Chief Executive Office/Administrator Role and Responsibilities

The role of the CEO/Administrator in a successful quality/performance improvement program cannot be overstated. Without his/her leadership support permeating the facility on a daily basis, the program is doomed to a continuous cycle of collecting and reporting meaningless numbers.

The data collected through the quality management program is intended to support an informed, objective decision-making process within the organization, at every level. This is necessary in order to support the organization’s ability to achieve the specific strategic objectives established by the Board, and thereby attain its mission.

Specifically, the effectiveness of the quality management program will rely on the CEO providing:

- **Education** for the Board and himself/herself about quality management principles and techniques
- **The link** between strategic plan strategies, goals and objectives, and relevant measures of performance for the organization
- **Support** for objective, data-based decision-making on a daily basis as well as strategically
- **Resources** through the budget system the needed resources to do QI/PI well, including:
  - Human resources: qualified quality management professionals; team members
  - Access to necessary information and data
  - Technology to support data collection, analysis and reporting
  - Time to meet as teams and work through improvement cycles continuously
  - Financial resources for improvements, including capital budgeting as needed
  - Ongoing quality management education for the senior leadership team and all facility staff
  - Space, lighting, furniture, tools, etc, to provide a suitable work environment for individuals and teams
- **Direction** for senior leadership as well as directors/managers of all organization departments and services concerning their role in performance improvement and implementation of the strategic plan
- **Accountability** for senior leadership and directors/managers, encouraging their embracing of and active participation in the quality management program

In order to most effectively fulfill these roles and responsibilities, it is often preferable for the Administrator to have a direct reporting relationship with the quality coordinator/director.
Senior Leadership Team Role and Responsibilities

Senior leaders work with the CEO/Administrator to implement the organization’s mission and strategic goals through systematic oversight of the organization’s systems and processes.

To that end, there are several specific actions senior leaders can take to promote and support the quality management program as an integral piece of that oversight. Senior leaders should:

- Demonstrate commitment to quality management as the most effective approach to implement the strategic plan, goals and objectives
- Assist the CEO in converting strategic objectives into measurable, short-term, operational goals which are typically implemented over a 12-month fiscal year. Operational goals are often presented together in an annual operational work plan.
- Communicate the operational work plan to subordinates in every department and service throughout the organization.
- Link specific department/service improvement goals to the operational work plan. Department/service goals will focus on improving performance in one or more aspects of the plan by identifying areas needing improvement to support it in:
  - Meeting and exceeding internal and external customer needs and expectations
  - Patient care systems
  - Hospital operations
- Educate staff and medical staff about quality/performance improvement continuously.

**Tip for Coordinators:**

One great way to provide this education is to share learning from specific QI/PI projects underway or completed. Publish the results to the entire organization, being sure to reward genuine effort by celebrating “good tries”, as well as successes.

- Support the QI/PI Coordinator and working collaboratively with that individual to achieve genuine, significant and sustained improvement(s).
- Support adequate funding through the budget system to provide the necessary resources for an effective quality management program.
Medical Staff Role

“The doctor of medicine or osteopathy provides medical direction for the CAH’s health care activities and consultation for, and medical supervision of, the health care staff.”

SOM, Tag C-0257

The State Operations Manual clearly tells us that it is the responsibility of a physician to perform the following quality management functions:

- Participate in the development of the CAH’s clinical policies, procedures and patient care guidelines (C-258)
- Evaluate and improve the quality of patient care provided by members of the medical staff (ie, Peer Review; C-259-261; C-339-340)
- Evaluate and improve the quality of patient diagnosis, treatment and patient outcomes (Peer Review; C-337-338). At a minimum, this includes:
  - All patient care services
  - Nosocomial infections
  - Medication therapy
- Evaluate and improve the quality of other patient care services and service providers (these services include dietary, the therapies, lab and blood utilization, radiology or imaging, surgical and anesthesia services, etc)
- Evaluate and improve the quality of the medical record (C 304-307)
- Evaluate and recommend to the Board contracted patient care services (C-285)

In order to perform these duties, the medical staff’s routine work will include a number of clinical care process reviews as well as chairing key clinical care committees, such as the Infection Control or Pharmacy & Therapeutics committees.

Another essential activity of the medical staff is to evaluate all applicant and current provider applications for medical staff membership and/or clinical privileges. Medical staff will then make a written recommendation to the Board about what action to take on each request. Quality management staff may be asked to support this credentialing process.

Tip for Coordinators:

Time really is a physician’s most valuable resource—spend it wisely. Focus your providers on the improvement issues that are most relevant to their work, and if possible, in areas where they have a personal interest. They are more likely to reward you with genuine interest and participation this way.
If you have ever attempted to single-handedly change a process or system in your organization based on your well-intentioned desire to do so, but without the support of others in your organization, you understand the truth of what Dr. McCabe is saying in the quote above.

Your authority to make changes unilaterally goes as far as your office or work space door. And without authority, it is grossly unfair to have delegated to you the responsibility to make needed changes.

So, how is the change needed to make improvement actually accomplished? In a word– TEAMWORK!

You need to be able to meet and work with others in the organization to accomplish the necessary changes to propel your organization forward.

The Quality Management Team is an essential part of an effective quality management program. This team, sometimes called the Quality Council, Performance Improvement Council, or a similar name, will coordinate and support all of the different improvement efforts going on in the organization, from improving a clinical care delivery process, financial performance, customer satisfaction, or preparing for a regulatory survey.
Roles & Responsibilities: The QMT, cont

Tip for Coordinators:

Note that the word “team” simply means more than one person is involved. You are one. If the only other person you work with on quality issues in your facility is your CEO, your team has 2 members, and qualifies as a team at that point.

The Quality Management Team (QMT) varies in composition from organization to organization, usually based on the organization’s size, the complexity of services offered, and the extent to which QI/PI is integrated into the organization’s culture.

The ideal team size is between 7 and 12 members, total.

Members of the QMT usually include:

- CEO/Administrator
- Quality Management Coordinator/Director
- Chief Financial Officer
- Director of Nurses
- Other department or service directors

Members of the QMT sometimes include:

- Medical staff representative
- Line staff representative
- Board of Directors representative
- Community member or patient representative
Roles & Responsibilities: The QMT, cont

Quality Management Team: Functions, Characteristics & Activities

The first and foremost function of the Quality Management Team is to conduct the independent assessment of objective evidence concerning the hospital’s overall quality and performance.

Key characteristics of the way in which the QMT conducts itself include:

- It is prevention-oriented and proactive. This team does not meet to ‘fight fires’.

- It is fact-based, ie, it is data-driven in its approach to decision-making; hard, objective, reliable and valid data are the basis of decisions whenever possible.

- It is independent, meaning that it is not constrained by organization structure and reporting relationships; all members have equal status on this team, and all departments’ and services’ performance is assessed.

- Makes decisions based on consensus. The QMT respects the fact that all members have a unique perspective about any given issue. Members acknowledge that the clearest picture of an issue is gained when all share their perspective; members are encouraged to voice their perspective, and even respectfully disagree with other members.

- Acknowledges that conflicts between members will arise, and manages them promptly and constructively when they do.

- Walks the Talk: the QMT uses the same standardized, consistent approach to organization improvement that the rest of the organization uses
Roles & Responsibilities: The QMT, cont

Key activities of the QMT include:

- Establishing an organization-wide approach to continuous improvement
- Establishing the organization’s priorities for improvement
- Conducting routine, periodic assessment of performance data
- Making data-driven decisions about current performance compared with the desired performance
- Coordinating resource utilization and allocation for PI activities, including human (time) and financial resources
- Oversight of the work of departments, services and PI teams to ensure continuous improvement cycles are initiated and completed as needed to improve and sustain improvement of organization performance
- Promote a culture of continuous improvement; work actively to eliminate organization barriers to improvement; publish and celebrate ‘good tries’ as well as successes
- Provide organization staff, medical staff and Board members education about PI; each team member understands the organization’s approach to and priorities for PI well enough to be able to actively participate in providing this education
- Educate the community about the organization’s efforts to improve performance; may provide performance information in an annual community report
- Periodically evaluate the overall soundness of the organization’s approach to quality management by conducting an annual progress or QI/PI program evaluation
  \[\Rightarrow\] regularly evaluates its own effectiveness as a team to maximize it
New PI Coordinator Education

Roles & Responsibilities, cont

Quality Program Director or Coordinator

As a key member of the Quality Management Team (QMT), the Quality Program Director or Coordinator will actively engage in all of the functions, characteristics and activities of the QMT.

There are additional tasks and functions which are frequently delegated to this position, including:

- Chairing the QMT
- Leading or assisting the QMT in the development of the organization-wide approach to performance improvement (the “QI/PI Plan”) and other policies/procedures related to the program
- Leading or assisting the QMT in the development and definition of global measures of organization performance
- Independently collecting and analyzing objective data for use by the QMT in assessing performance
- Identifying and resolving data quality issues
- Participating in the capital and operational budget development process for the PI program, in order to advance the program
- Providing leadership, education and guidance to the QMT, other department/service managers, senior leaders, medical staff and Board as needed
- Attending other department or PI team meetings as needed to coach others in team dynamics, PI measure development and definitions, how to use PI tools, etc
- Preparing and leading the CAH’s Periodic/Annual Program Evaluation
- Researching regulatory requirements, clinical practice guidelines, emerging trends and other standards of organization performance that may impact the facility
- Participating in the writing of plans of correction for the CAH Medicare Certification and/or Licensure surveys when deficiencies are cited
- Preparing and presenting reports on performance/quality matters for managers, QMT, medical staff and Board
- Preparing reports for strategic planning sessions

This list is not exhaustive, but merely attempts to highlight some of the key additional functions QI/PI leaders are called upon to perform in the course of their daily responsibilities.
Department and Service Directors, Managers, and Coordinators

The Interpretive Guidelines of the State Operations Manual (SOM) for Critical Access Hospitals, Tag C-0336, defines an “effective” quality assurance (improvement) program as one that is:

- Implemented organization-wide
- Conducts ongoing monitoring and data collection;
- Includes problem prevention, identification and analysis in its work;
- Identifies correction actions when problems are identified;
- Implements corrective actions;
- Evaluates corrective actions for effectiveness and problem resolution; and
- Measures to improve quality on a continuous basis.

At a minimum, the organization’s leadership, including senior leaders, the QMT, and the Quality Program Director/Coordinator should expect all department and service managers to actively engage in the activities listed in the SOM.

However, senior leaders and the QMT should also work to engage these individuals in:

- Making a commitment to the philosophy of continuous improvement
- Supporting the organization’s strategic plan through department operational improvement
- Obtaining needed education about performance measurement and improvement
New PI Coordinator Education

Roles & Responsibilities: Department & Service Managers, cont

- Gaining competence and confidence in the use of PI tools
- Learning how to analyze the processes and systems of their departments, across departments and throughout the organization
- Requesting new or additional resources to implement improvements
- Identifying and removing department or service barriers to improvement
- Serving on the Quality Management Team and other interdisciplinary improvement teams as needed
- Educating their staff about PI, its tools and techniques, and the department’s performance
- Engaging their staff in improving the department’s/service’s performance by:
  - Breaking down large goals into smaller PI projects
  - Providing a time frame for project completion
  - Clearly assigning responsibility for achieving goals and/or completing projects
  - Coaching staff in the development of relevant performance measures related to each important goal, project or aspect of a project
  - Increasing staff’s skill and confidence in using PI methods and tools
  - Clearly assigning responsibility for regularly reporting performance to the manager
  - Publishing results and celebrating successes and “great tries”; learning from every project
New PI Coordinator Education

The Basics: The Quality Program Plan
Refer to Conditions of Participation C-330 through C-343

Surveyors will look for one written document in the organization’s administrative manual that pulls together all of the pieces of the quality program into one comprehensive plan.

The surveyors will read this document prior to interviewing staff in order to gain an understanding of how the PI program in your organization is supposed to work. Staff interviews will then be conducted to verify whether or not the program is implemented as written.

As with all major organization plans, your Quality Program Plan will have three major components:

• Policy
• Purpose for the policy
• Procedure for implementing the policy

Policy statement answers the question, “What is the official position of the organization on this subject or about this program?”

Purpose statement(s) answers the question, “Why does this program exist? Why is the organization doing what it is doing?” You may have more than 1 purpose statement.

Procedure answers the question, “How will the organization implement the policy; what steps will it take; what approach will it use.

Writing your Quality Program Policy Statement:
WHAT is the official position of the organization on this subject?

Tip for Coordinators:
• Always check the SOM tags and interpretive guidelines to see what CMS says a certain program, person, group or service is supposed to do.

• Include every element they mention somewhere in your policy/procedure.
Quality Program Plan: the Policy Statement, cont.

a) Identify some key words from Tags C331-343: of the CAH State Operations Manual, Appendix W, which talk about what the quality program is supposed to accomplish:

b) Write one sentence using the key words above that tells others what the organization will do through the quality program.

“XXX Hospital/Medical Center will …

Writing your Quality Program Purpose Statement(s):

Tell others WHY you have a quality program.

Refer to the tags 331-343 again and identify some key goals or purposes listed there.

Tip for Coordinators:

- purpose statements are action statements, and often begin with the words like “to”, or “in order to”. For example:
  - “To evaluate the quality and appropriateness of diagnosis and treatment, and treatment outcomes” (C 336)
  - “To identify and prevent patient care and/or safety problems or concerns” (C 335)
  - “To improve effective resource utilization” (C 335)
  - “To ensure appropriate remedial action is taken to address deficiencies” (C 342)
b) Write a bulleted list of the most important key words or phrases you identified above about why the organization is taking the policy position it has chosen:

“XXX Hospital/Medical Center will implement this plan to.....(fill in the blanks below):

• ______________________________________________________________

• ______________________________________________________________

• ______________________________________________________________

• ______________________________________________________________

• ______________________________________________________________. “

Writing your Quality Program Procedure:

Tell others HOW you will implement your quality program.

Tip for Coordinators:

• The level of detail should be sufficient so that someone who is not familiar with the program can identify his/her role in “doing it” correctly (like following a recipe).

Important Elements of the Quality Program Procedure:

1. Describe the policy/program scope, that is, who is included, or excluded, by the plan? some staff? all staff? medical staff? Executives? Board members? some services? all services? hospital? clinic? nursing home?
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Quality Program Plan: Writing Procedure, cont.

Important Elements of the Procedure, cont

2. Describe the specific roles and responsibilities of the individuals involved, including all those listed below. (sometimes it is easiest to start at the top and work your way down the org chart; or vice versa. And check the regs again- they often provide information about roles from the surveyor’s perspective).

- Who is ultimately responsible for the quality of care provided (Board)
- Who implements the PI program on behalf of the Board (CEO or Administrator)
- Who is responsible for directing and improving medical care (Medical Director/staff)
- What the PI Director/Coordinator does
- What the Quality Management Team does
- What Department/Service Directors do
- What all staff do

3. Describe the kinds of data that will be collected, including:

- What regulators require, for example: (**NOTE: his is NOT an exhaustive list!**)
  - Health care policies evaluation (C334)
  - “All patient cares services and services affecting patient health and safety” (C 337)
  - Nosocomial infections and medication therapy (C 338)
  - Clinical records (C 301-311; C 333)
  - Quality of diagnosis and treatment, and treatment outcomes (C 336)
  - Organ, Tissue and Eye Procurement responsibilities (C 345)
  - Transfusion reactions (FDA)
  - Fire and Emergency Preparedness drills (Life Safety Code; State licensure)
  - Radiation exposure (NRC)
- PI teams underway: their work and progress
- Patient/resident/employee satisfaction surveys
- Strategic and operational work plan objectives identified by the Board and/or CEO
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Quality Program Plan: Writing the Procedure, cont.

Important Elements of the Procedure, cont

4. Describe the approach to improvement the organization will use. For example:

- Plan, Do, Study, Act / Plan, Do, Check, Act (for interdisciplinary teams, complex issues)
- Six-Sigma (when there is no margin for error)
- Lean Process Improvement (focusing on elimination of waste, redundancy)
- Root Cause Analysis (RCA; for investigating sentinel events (SE) and near misses)
- Failure Modes and Effects Analysis (FMEA; to proactively reduce chances of a SE)
- Rapid Cycle Improvement (when you need to make rapid interdisciplinary improvement)
- Quick fix (can be appropriate for individual department use or simple problems)

*Tip for Coordinators: Heads up!*  
Surveyors frequently ask front line staff about the “approach to improvement” the organization uses to see if they are familiar with it, have been trained in using it and can comfortably describe a time they used it.

5. Describe how interdisciplinary PI teams are requested, authorized and monitored

6. Describe how performance data are collected, aggregated, assessed and reported

7. Describe how the organization defines and responds to sentinel events.

8. Describe how the effectiveness of the PI Program is continuously evaluated and improved

9. Describe how the Periodic (Annual) Evaluation of the CAH Program is conducted (C 330)
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Quality Program Plan: Writing the Procedure, cont.

PRACTICE

Ask the members of the quality management team to answer the questions below to help form an outline for a draft PI procedure:

- In this organization, data is collected, aggregated, assessed and reported by __________.
- In this organization, __________________ establish(es) the priorities for improvement.
- In this organization, interdisciplinary PI teams can be requested by ________________.
- In this organization, interdisciplinary PI teams are authorized and monitored by ______.
- In this organization, sentinel events are defined as ____________________________.
- In this organization, ______________ reports sentinel events to ____________________________ within (specify time frame)______________________.
- In this organization, ________________ investigates sentinel events and reports the findings of the investigation to ____________________________.
- In this organization, ______________ reports a verified sentinel event to the appropriate State agency or other regulatory body within ________________ (days).
- In this organization, the effectiveness of this program is evaluated by ________________ at least (how often the program is evaluated) ________________.
- In this organization, the periodic (annual) evaluation of the CAH Program is conducted by ________________. The results of the eval are reported to the medical staff by ________________ and to the Board of Directors by ________________.
- The QI/PI Coordinator/Director role in the annual evaluation is to ________________.
- A review of the utilization of services will be accomplished by ____________________________.
- A review of at least 10% of open and closed medical records will be accomplished by ____________________________.
- A review of the clinical policies will be accomplished by ________________.
- A determination of whether or not utilization was appropriate, policies were followed and what, if any changes are needed, will be made by ________________.
General Guidelines for Drafting Policies & Procedures

Tip for Coordinators:

The following tips far from a webinar provided for MHA in 2003 by regulatory and risk management attorneys associated with Alston and Byrd LLP. If you would like a copy of that education session, contact MHA at 1-800-351-3551.

1. Identify the organization’s criteria for when a p/p is needed; for example, when:
   ⇒ there is a need to reinforce verbal instructions
   ⇒ the same questions are asked by staff repeatedly
   ⇒ a task/process/policy is critical and must be error-free
   ⇒ a task occurs rarely, and no one remembers how to do it

2. Review all existing manuals and policy-like documents when a need is identified prior to drafting a new policy/procedure, to see if one already exists.

3. Develop a draft policy/procedure (p/p), clearly marking the document as “DRAFT”.

4. Read the draft p/p out loud to help you identify and clarify confusing terminology, acronyms, sentences or gaps in sequence.

5. Circulate and obtain approvals of the draft as necessary and/or appropriate among:
   • Committees, services and/or departments
   • Administration, CEO/Administrator
   • Medical Staff when clinical
   • Board of Directors
   
   Don’t forget the CAH Policy Review Committee for all patient care policies! (C-258, 263, 272, 334)

6. Publish the draft to the proper user group.
New PI Coordinator Education

General Guidelines for Drafting Policies & Procedures, cont

**DO...**

- Use the words ‘may’ or ‘should’ instead of ‘will’, ‘shall’ or ‘must’: allow for deviation when necessary; this is especially important when clinical judgment is involved
- Write in the active voice (that is, start the sentence with who is to do it)
- Read the draft policy/procedure out loud
- Test the draft on users before final approval and/or adoption: this ensures new readers understand the intent without anyone having to explain it to them (the external reviewer on the CAH policy development team is often great for this)
- Write to the 8th Grade Reading Level for policies/procedures used internally
- Write to the 4th Grade Reading Level for anything patients, families will read
- Minimize multi-syllable words and abbreviations

**DON’T...**

- Assume the subject of a sentence. Here’s an example:  
  “Call the switchboard” this statement assumes who will call;  
  “The staff person finding a fire will call the switchboard” specifies who will call.
- Use an abbreviation or acronym without first defining it, and define it the first time it is used. Capitalize the abbreviation or acronym. Once defined, use the term as defined consistently throughout the rest of the policy/procedure.
- Use unreasonable time frames (they are frequently unmet and this sets the organization up for failure and liability
- Don’t keep forms in manuals without telling people how to use them (if everyone knows how to use the form, remove it from the manual). Let surveyors ask for documentation tools that all staff are familiar with and are commonly found in the medical record.

**Drafting Pitfalls**

- When draft versions are not clearly marked ‘draft’ and/or are not dated, they can accidentally be placed in manuals before they are ready, then used in survey or court as they are.
- Use of the terms ‘standards’, ‘guidelines’, ‘protocol’, ‘policy’ without defining them first and/or using them interchangeably within one policy or among several policies
- “Prescriptive” policies are policies that are so detailed there is no room for deviation based on professional clinical judgment; these increase organization liability when deviated from.

*Add a statement like this to clinical care guidelines/protocols: “The clinician may deviate from this protocol when, based on his/her clinical judgment, it is in the patient’s best interest to do so.”*
Working with departments and services, their leaders and their staff, involves two very different functions:

- a **task function**, or the actual work you need to accomplish (WHAT you do)
- an **interpersonal function**, that is, how you will relate to the individuals involved to get the work done (HOW you do it)

We will look at these two functions individually. The basic concepts presented here can be applied to any quality-focused team or committee you work with.

**Quality Team Task Functions (WHAT you do): A Short List...**

- Oversee the organization’s entire quality management program
- Identify priorities for improvement
- Identify needed resources for improvement, and plan for providing them
- Develop and define performance measures, benchmarks and targets
- Collect, assess and report performance
- Clarify data collection and reporting cycles
- Clarify responsibilities, within the department and others’ roles
The interpersonal function of working with departments and services is all about how you will relate to the individuals on the team to get the work done. It involves behaviors, such as:

- facilitating: helping others work effectively together
- listening: to others carefully, without planning your response while they are speaking
- motivating: answering the “what’s in it for me” question others have
- encouraging: drawing out others’ best contributions
- educating: providing information others need
- holding others accountable: the team is a cohesive unit, not just a group of individuals
- managing conflict effectively: openly acknowledging all teams experience some conflict and using it to propel the team forward, rather than render it useless

Many great teams agree to a set of Team Rules which describe how they will work together in order to maximize their effectiveness. A few common team rules are presented in the list below:

- We will treat each other with mutual respect at all times
- All team members will contribute, and all will listen respectfully to others
- Differences of opinion are desirable and can be expressed safely and passionately here
- What we say here stays here
- Titles are left at the door, all are equal here
- We will focus on changing processes or systems, not changing people
- We will make data-based, objective decisions, discussing options to reach consensus
- We will respect each other’s time by completing between-meeting work assignments, starting and ending each meeting on time, and reviewing minutes and reports prior to team meetings
Managing Team Conflict

*All teams experience conflict among their members!*

The only difference between poorly functioning and highly functioning, effective teams is that the latter accept conflict as a normal part of team growth, and willingly do the work to manage it effectively so that the team can perform at its highest possible level.

### Stages of Team Development and Conflict

![Graph showing stages of team development and conflict](image)

**WHY Conflict is Normal on a Team**

- By definition, a team must involve two or more individuals
- All individuals come to the table with different personalities, perspectives, life experiences, core beliefs, strengths and weaknesses, needs and desires
- Because of our differences, we will see the potential solutions to our challenges differently
- Unfortunately, it is human nature to believe our own perspective is best, and is the one that should be acted upon
WHY Conflict is Desirable in a Team: the Johari Window

- My knowledge is incomplete
- Others’ knowledge is incomplete
- Conflict can stimulate information–sharing
- Information-sharing enlarges the Open Arena
- Information-sharing reduces the blind spot and facade

Conflict: Is it Function (constructive) or Dysfunctional (not constructive)?

**Functional Conflict**
- Is openly, honestly acknowledged
- Builds competence of self, others
- Invites information-sharing
- Increases personal and team trust
- Stimulates creativity
- Maximizes contributions of all
- Maximizes synergy & team effectiveness

**Dysfunctional Conflict**
- Is ignored, denied or triangulated
- Attacks competence of self, others
- Refuses information-sharing
- Decreases personal and team trust
- Stifles creativity
- Minimizes contributions of most; “group think”
- Minimal synergy or effectiveness gained
Develop a Culture of Managing Conflict Effectively

*Tip for Coordinators:*

*Every organization has its own culture, or atmosphere. The accepted way of managing conflict in the organization is part of its culture and is a standard that the CEO/Administrator sets for the facility. If you would like to see your facility manage conflict more effectively, you will need to gain your CEO’s support to change that part of the organization culture.*

To move the organization towards a culture of managing conflict constructively, consider:

- Making this an organization-wide performance improvement goal
- Always clarifying quality team roles and responsibilities
- Evaluating quality teams and the overall quality program effectiveness regularly
- Providing skill-building education for conducting one on one interventions with intentionally disruptive team members
- Encouraging teams to establish a set of team rules to guide acceptable behaviors
- Using a team facilitator for complex team work, because he/she...
  - Will have only one interest in the outcome: getting to the best decisions
  - Focus on how well the team is working together and watch for clues
  - Has no vested interest in any particular decision
  - Can help keep team discussion focused on the current topic
  - Will tactfully stop side conversations
  - Will tactfully prevent domination of the discussion by one or a few members by encouraging quieter members to share their information
  - Is empowered to stop the task work when dysfunctional conflict is building and helps the team step aside from the task to work out the interpersonal piece before continuing
  - Will encourage team members to deal honestly and respectfully with each other at all times, and especially in conflict resolution
Deciding What Data to Collect

When trying to decide what data to collect, the Quality Management Team will need to consider what they HAVE to collect, what they SHOULD collect, and what they WANT to collect.

Examples of Data we HAVE to collect
A) Required by external regulators of the facility
   • Appendix W, the State Operations Manual (SOM) for CAHs
   • FDA: Blood utilization and storage
   • CAP: laboratory practice
   • NRC: radiology/imaging
   • State: kitchen and sanitation
   • “Meaningful Use” of technology
   • Voluntary accreditation organizations like JCAHO

B) Required by liability carriers: risk management; peer review; adverse patient events

Examples of Data we SHOULD collect
A) Strategic plan implementation measures specific to the organization
B) Medicare Beneficiary QI Project (MBQIP): CART software; Data Warehouse
   • Sept 2011: Pneumonia; CHF (CMS Core measures)
   • Sept 2012: AMI in the ED; Surgery Antibiotic Prophylaxis; HCAHPS
   • Sept 2013: CPOE and Med Orders Verification within 24 hrs
     Outpatient ED Transfer Communication (essentially, EMTALA measures)
Examples of Data we SHOULD collect, cont

C) National Patient Safety Goals and Agenda

JCAHO  Sentinel Events investigation and prevention
IHI     national campaigns, including medication use safety
AHRQ, CDC, CMS Collaboratives
  CLABSI  Reduce Central Line-Associated Blood Stream Infections
  On the CUSP  eliminate blood stream infections
CDC     National Healthcare Safety Network (NHSN); patient/staff safety surveillance

Examples of Data we WANT to collect

- High risk processes and systems
  * Emergency, OB, Surgery; special Imaging procedures
  * Anesthesia and conscious sedation; use of reversal agents
  * Medication use; blood transfusion
  * Non-operative but invasive procedures (endoscopy, catheters, cautery, incisions)
- High volume processes and systems
  * Patient admission, transfer, discharge and identification
  * Medical records documentation, coding and billing
  * Med pass, special diets, catheter use
- Problem-prone processes and systems
  * Preventing patient falls, med errors, nosocomial infections and/or pressure ulcers
  * Medical records completion
- Drill down data, areas where active improvement is underway in the facility
Some Data Collection Requirements Mentioned in the SOM for CAHs

*** NOTE: this list is NOT exhaustive! ***

- Compliance with federal, state and local laws (C-150); includes EMTALA
- Staff licensing and certifications current (C-154)
- Emergency Services provided (C-200)
- Blood use and therapeutic gases (C-200)
- Building and equipment maintenance (C-220)
- Emergency Preparedness (C-227)
- Life Safety (C-231)
- Physicians (C-251) and mid-levels (C-263) meet their obligations
- Medication Use (C-276)
- Adverse drug events (C-277)
- Nosocomial Infections (C-278)
- Dietary department and nutrition (C-279)
- Policies and Procedures review (C-280)
- Ancillary clinical services and staff (C-281 through 284)
- Contracted services quality (C-285)
- Nursing services (C-294)
- Medical records, several issues (C-300 through 310)
- Surgery (C-320) and Anesthesia (C-322)
- Annual CAH Program evaluation (C-330)
- Effective QA Program (C-336)
- CAH practice reflects policies, procedures, laws (C-335)
- Quality of care improved (C-337)
- Peer Review (C-339): quality and appropriateness of diagnosis and treatment
- Survey deficiencies corrected (C-342)
- Organ Donation (C-344)
- Swing Bed Requirements met (C-350 and on)

EACH FACILITY MUST CONSULT THE SOM FOR CAHS AND ASSUME THE RESPONSIBILITY FOR ALL DATA COLLECTION REQUIREMENTS WITHIN IT!!
Identifying the “Vital Few” Performance Measures

Use objective, not subjective, criteria to identify a limited number of focus areas and the performance measures your organization needs to collect data for, based on its strategic and improvement priorities. Your criteria might include one or more of the following:

- It is specifically required by a regulator
- It is specifically required by a certifying agency
- It is an area specifically identified in the strategic plan or department’s goals
- It involves high risk patient care systems or processes
- It is a high volume system or process in this organization
- It is a problem-prone system or process in this organization
- It is a current focus for active improvement in this organization

Identify the “Vital Few” areas for data collection in your facility from the possibilities listed below.

<table>
<thead>
<tr>
<th></th>
<th>CMS Requires</th>
<th>Strategic Plan</th>
<th>PIN project</th>
<th>High Risk</th>
<th>Problem Prone</th>
<th>Current Focus</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>MR Completed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nosocomial inf</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Med errors</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C-section rate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patient Sat</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fire drills done</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work orders timely</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patient Billing errors</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Payroll errors</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Define Performance Measures Clearly

Further clarify your performance measure, so that it describes one process that will be evaluated. Many focus areas can be broken down into numerous steps, or processes, involved in doing a particular job.

For example, using the list of possibilities from the previous page, are you going to:

- Monitor all medical records for completeness? Or just Doc A’s? Or just inpatient admissions
- Monitor all adverse medication events/errors hospital wide? Or, only in the ED? Or swing beds? Are you going to capture data on all events that occur? Or, just IV events? Or, omitted doses?

**PRACTICE** Clarify one process for each focus area below that you might monitor.

<table>
<thead>
<tr>
<th>Describe the Exact Process You Will Monitor</th>
</tr>
</thead>
<tbody>
<tr>
<td>MR Completion</td>
</tr>
<tr>
<td>Med errors</td>
</tr>
<tr>
<td>Patient Satisfaction</td>
</tr>
<tr>
<td>Work orders timely</td>
</tr>
</tbody>
</table>

**Tip for Coordinators:**

*Make sure the data you want to collect for your measure is actually available.*

*And, beware of defining more measures than you really need to evaluate the process or system you are interested in monitoring.*
Define the Measure’s Numerator and the Denominator

Performance is often evaluated in terms of a rate or percentage.

A rate describes how often something has happened. For example, 16 out of 20 times. This rate can be written as a fraction, where 16 is the numerator, and 20 is the denominator: 16/20.

A percentage can also be used to describe how often something has happened, but it assumes the maximum possible frequency that the thing can happen is 100% of the time.

To report a percentage, you have to do a calculation that begins with the rate, expressed as a fraction, and having a numerator and a denominator. Then, multiply the fraction by 100%.

Continuing the example above, the percentage is: 16/20 X 100%, or 80%.

**Tip for Coordinators:**
When very small numbers are involved, it may be just as useful and is perfectly acceptable to simply count and report the number of times something happens. When using this approach, the numerator is the count, and the denominator is ‘1’.

---

**PRACTICE**

<table>
<thead>
<tr>
<th>Exact Process</th>
<th>Numerator</th>
<th>Denominator</th>
<th>Any Calculations</th>
</tr>
</thead>
<tbody>
<tr>
<td>% MR Completed on time</td>
<td>Inpatient records</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rate of UTIs as a nosocomial infect</td>
<td>SB residents</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Define Benchmarks, Targets or Desired Performance Levels

**Benchmark:** a performance level we compare the performance we are monitoring with.

- **internal benchmark:** represents our own, internal, past performance
- **external benchmark:** represents the performance of someone outside our organization

**Target:** the level of performance we want to achieve. Target performance can be the same value of a benchmark, but when a benchmark is not readily available, we can objectively establish our performance goals for a process by establishing a target and comparing our measured performance with that value.

*Tip for Coordinators:*

One notable exception to establishing benchmarks and targets for performance is seen in quality control (QC) activities. A licensing agency or the manufacturer of a product or piece of equipment will state that, in order to ensure proper function, the product or instrument must operate within a specified range of values, you must use those values. These are called control values, and there is no adjusting of them to accommodate organization performance outside of the proscribed range.

**Sources of Benchmarks**

- Mountain Pacific Quality Health, the MT QIO [www.mpqhf.org](http://www.mpqhf.org)
- Center for Disease Control and Prevention (CDC) [www.cdc.gov](http://www.cdc.gov)
- Institute of Healthcare Improvement (IHI) [www.ihi.org](http://www.ihi.org)
- Agency for Healthcare Research and Quality (AHRQ) [www.ahrq.gov](http://www.ahrq.gov)
- Assoc of Peri-Operative Registered Nurses (AORN) [www.aorn.org](http://www.aorn.org)
- Assoc for Professionals in Infection Control (APIC) [www.apic.org](http://www.apic.org)
- Reference literature for the discipline/department/service under study
- PIN Benchmarking and Clinical Improvement Studies projects
- Other healthcare organizations that are similar in size and services offered to yours
Clarify Data Collection Cycles

Data collection can take place at any point along the entire continuum of a work process or system under study, and is described by where, along that continuum, it occurs:

- **Prospective**: data is collected before the work happens; quality is “built in” to the process or system
- **Concurrent**: data collected while the work is underway; quality can be built in
- **Retrospective**: data is collected after the process is complete; can only measure what has happened; cannot change or influence it at this point

**Here’s an Example- Patient A is seeking HF care at your facility:**

When selecting data collection points, think carefully about the critical points in the process you want to evaluate, and when you might want to intervene in a process to improve outcomes for a patient before discharge.

Balance your use of all 3 measure types. If all of your data collection occurs retrospectively, even though you can make improvements to change the outcome for subsequent patients, you do not have the opportunity to change an outcome for any patient before discharge until those needed changes are implemented.
Many process and/or system factors will influence the data collection cycle, that is, how often you will decide to collect your data, including:

- How stable or volatile the system/process (ie, how likely is it to change significantly and quickly?)
- How likely is an out-of-control process to result in an adverse patient event (risk)?
- Is the process routinely monitored or is under active improvement?
- Who are the end users of the data (Board, Admin, med staff, managers, staff, regulators, public), and how often do they meet or want to view the data (daily, weekly, monthly, quarterly, annually)?
- How accessible is the data? Very accessible, or is it hard to access?
- Any additional costs required to collect or report the data (like patient satisfaction data)

**Tip for Coordinators:** Collect Data More Often If...
- the process is volatile
- there is greater patient risk if the process gets out of control
- The process is under active improvement

The table below provides some general guidelines to consider when defining data collection cycles:

<table>
<thead>
<tr>
<th>System/Process Characteristic</th>
<th>Then Collection Cycle</th>
</tr>
</thead>
<tbody>
<tr>
<td>High volatility</td>
<td>Weekly</td>
</tr>
<tr>
<td>High risk</td>
<td>Weekly</td>
</tr>
<tr>
<td>Active improvement + high volume</td>
<td>Weekly, monthly or quarterly</td>
</tr>
<tr>
<td>Active improvement + low volume</td>
<td>Monthly or quarterly</td>
</tr>
<tr>
<td>Strategic plan measure</td>
<td>Monthly or quarterly</td>
</tr>
<tr>
<td>Moderate risk</td>
<td>Monthly or quarterly</td>
</tr>
<tr>
<td>Stable, low risk process</td>
<td>Semi-annually or annually</td>
</tr>
</tbody>
</table>
Data Management: Collection Cycles, Responsibilities

**Example:** you can use a simple table to help clarify data collection cycles.

<table>
<thead>
<tr>
<th>Performance Measures</th>
<th>Volatility</th>
<th>Risk</th>
<th>End Users</th>
<th>Collection Cycle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provider arrives within 30 minutes of notification</td>
<td>high</td>
<td>High: survey deficiency</td>
<td>CEO regulators</td>
<td>daily</td>
</tr>
<tr>
<td>Adverse Med Events % omitted doses</td>
<td>moderate</td>
<td>moderate</td>
<td>Pharm, MS, RM</td>
<td>monthly</td>
</tr>
<tr>
<td>Nursing Assessmt complete w/ 24 hrs of admit</td>
<td>low</td>
<td>moderate</td>
<td>Nursing, MS</td>
<td>quarterly</td>
</tr>
<tr>
<td>MR Face Sheet completed at time of admission</td>
<td>low</td>
<td>low</td>
<td>Finance</td>
<td>semi-annually</td>
</tr>
</tbody>
</table>

**Data Collection Responsibilities**

It is important to clarify **who** will collect which kinds of data in order to:

- Actively engage as much of the staff in performance improvement as possible
- Maximize coordination and efficiency throughout the organization
- Minimize duplication of effort
- Ensure timely and consistent performance reporting
- Enable individual or group

Factors to consider when assigning data collection and reporting responsibilities include:

- Where is the data located
- Who has easy access to it
- Who attends the end users meeting where the data will be reported
- Your role as spokesperson in the facility for the PI Program
Data Collection Tools

There are many kinds of data collection tools, electronic and non-electronic. Some of the more common tools we use to collect data in our work include:

**Logs or check sheets:** these are the simplest tool and the fastest to set up for data collection

<table>
<thead>
<tr>
<th>Case #</th>
<th>H &amp; P on MR in 24 hr</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>X</td>
</tr>
<tr>
<td>2</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>X</td>
</tr>
<tr>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

**Table (matrix):** this is a great tool for many QA activities, and is more efficient than several log sheets if you are collecting data on related measures from same source

<table>
<thead>
<tr>
<th>Case #</th>
<th>H &amp; P</th>
<th>Nursing Assessmt</th>
<th>Care Plan</th>
<th>DC Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Surveys:** these standardized question and answer forms collect input about satisfaction, needs, experiences and/or opinions; generally set up like a table; can include a scale of responses

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>My provider answered all of my questions.</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My pain was well-managed.</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My nurse was compassionate and caring.</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>At discharge, I understood how to take my meds</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>At discharge, I understood when my next appt was</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>
New PI Coordinator Education

Data Collection Tools, cont

** Dot Plots:** are great for collecting the same data over a long period of time; great for QC; data can be collected directly on the prepared graph.

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**Data Aggregation and Assessment**

Hospitals are great at collecting data as part of their quality/performance improvement activities. Unfortunately, all too often the effort stops there, and the collected data is never turned into information the organization can use to improve.

**The primary reasons for aggregating and assessing collected data are to...**

- Increase the usefulness of raw data by turning it into information
- Help make it ‘actionable’; to enable a decision based on the data
- Identify areas where other or more data needs to be collected
- Provide objective information as the foundation of objective decision-making

---

**Tip for Coordinators:**

*Data aggregation and assessment should always end with a decision about how to move forward towards your target from where you are.*
Data Aggregation

The word ‘aggregate’ means to gather or collect things together.

Data aggregation is simply gathering, collecting or grouping like-kinds of data together into one group, or data set.

The grouping process can begin at the same time data collection begins. Many times, the same tools which are helpful for collecting data can be helpful for aggregating that data.

Tip for Coordinators:
Log sheets, tables, surveys, dot plots and other simple graphs can collect and aggregate data simultaneously.

PRACTICE
Can you see what one major difference between the two data sets below is?

<table>
<thead>
<tr>
<th>Data Set A</th>
<th>Data Set B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yellow</td>
<td>Blue</td>
</tr>
<tr>
<td>Green</td>
<td>Blue</td>
</tr>
<tr>
<td>Blue</td>
<td>Blue</td>
</tr>
<tr>
<td>Red</td>
<td>Green</td>
</tr>
<tr>
<td>Blue</td>
<td>Green</td>
</tr>
<tr>
<td>Green</td>
<td>Red</td>
</tr>
<tr>
<td>Blue</td>
<td>Yellow</td>
</tr>
</tbody>
</table>

We have successfully aggregated the set A data into set B by grouping like colors together. But, do we know about the value or importance of this data? NO... not yet.
New PI Coordinator Education

Data Management, cont

**Data Assessment**

The word ‘assessment’, as it applies to our work, means to evaluate or estimate the nature, quality, ability, extent, or significance of something.

Look at Data Set B again, presented in a slightly different format:

```
blue  green  red  yellow
blue  green
blue
```

Let’s assume these colors represent the colors of wagons parents purchased from our company for their children. Then we’ll ask ourselves some questions about our data, like:

- Can we determine if the color variation present is **significant**? *(does it matter?)*
- Can we draw any general conclusions from Data Set B?
- Can we take constructive action based on the answers to those questions?
- Finally, if our data represents only a **sample** of all of the wagons we sold last year, what can we say, or **infer**, about the rest of the wagons (ie, the whole **population** of wagons) purchased, based on our aggregated data?

*The techniques developed for quality/performance data assessment strive to answer one or more of these questions in a valid, objective way.*

**Two common approaches to data assessment in performance improvement are:**

1) Mathematical and/or statistical analysis of raw numbers, including calculating...

- rate
- percent
- frequency or relative frequency
- range
- average (mean) value
- median, quartile and decile values
2) Constructing charts and graphs from the data to help visualize variation, and:

- Applying objective limits for the evaluation (ISD, 2SD, 3SD)
  
  => control limits, upper and lower
  
  => threshold: the point at which we will intervene
  
  => benchmark: the level of performance we want to achieve

- Looking for associations or relationships, trends, among individual data points in the set

- Evaluating the variation between data points and data sets

  => Is the variation normal? Expected? Nothing to get excited about?
  
  => Or is the variation not normal? Significant? Something to get excited about?
  
  => How can I tell?!

Common Cause and Special Cause Variation- The Standard Normal Curve
based on our discussion about the standard normal curve, determine using the graph below:

- The upper control limit, set at +3SD of the mean and the percentage of our tested population that can be expected to fall all above this point
- The lower control limit, set at -3SD of the mean and the percentage of our tested population that can be expected to fall below this point
- What population do these values represent? Is this process ‘in control’?

![Glucose Control Values Graph](image)

**Common Cause Variation:** The expected variation inherent in any process due to the normal interaction of the process variables.

**Special Cause Variation:** The unexpected variation in the process due to a specific cause or causes, this variation is significant.

**PRACTICE** are there any points in the graph above that represent significant variation?
Westgard Rules for Interpreting Control Charts

www.westgard.com/mltirule.htm

Even and varied distribution of points on both sides of the mean, all within control limits; common cause variation; the process is said to be ‘in control’ and/or ‘stable’.

1 point exceeding the upper or lower control limit is special cause variation.
The upper and lower control levels are set at + and -3SD. Two consecutive points are greater than or less.

A change of 4SD up or down is special cause variation.

A change of 3SD crossing the center line indicates special cause variation may be present; investigate.
New PI Coordinator Education

Data Assessment, Westgard Rules, cont

6 Points on One Side of Mean

6 consecutive points on one side of the mean is special cause variation.

7 Point Trend, Ascending or Descending

7 consecutive ascending or descending points is special cause variation

Sawtooth

A sawtooth pattern is not normal, it is special cause variation
New PI Coordinator Education

Data Management, cont

Resolving Data Quality Issues

Questions about the validity of the data you have collect and are present, as well as the conclusions you draw from them, frequently come up in meetings. You need to be able to answer the questions about whether or not the collected data is accurate and reliable.

Accuracy is the term used to express the precision of the data; in other words, how close is the measured value to the true value?

Reliability is the term used to describe whether or not repeated measurements under identical conditions produce the same results.

Given the standard normal curve and our previous discussion about normal variation, it is safe to assume that no data are 100% accurate, nor 100% reliable. Some amount of variation will be present. How do we account for that expected variation but have a way of determining whether or not the data are accurate enough and reliable enough to act on?

Confidence Intervals (CI), based on the standard normal curve, mathematically express how confident you can be that the data values are the true values and that repeated measurement under the same conditions will produce the same results.

Sample size is a significant source of variation, influencing data accuracy, reliability and our confidence in it. These are general sampling guidelines that will help ensure your data is accurate and reliable, that you can have confidence in it, and that your conclusions are valid:

- 30 data points graphed will approximate the standard normal curve
- For a hospital/patient population greater than 30, sample at least 10% of the population, or obtain a minimum of 30 data points
- For a population less than 30, collect data from the entire population
4 R’s for Performance Reporting

Quality professionals always seem to be looking for more effective ways to report organization performance. **Effective** in this situation seems to mean:

- providing the **right** information...
- at the **right** time....
- to the **right** people...
- in the **right** way.

The ‘right way’ might mean a way which catches the attention of the intended audience, that makes sense to them and motivates them to take the action needed, including making decisions that need to be made.

In general terms, performance reporting is intended to:

- Provide an objective basis for sound decision-making;
- Leverage improvement by increasing team knowledge and understanding;
- Help focus the organization/team on improvement and help maintain that focus;
- Encourage a proactive response to opportunities for improvement;
- Encourage a positive organization culture of shared knowledge, unity, continuous learning, the free exchange of ideas, ownership of outcomes, the celebration of successes and improved morale.

Common pitfalls related to performance reporting include:

- Reporting only to meet regulatory standards or requirements;
- The introduction of personal bias into the data and/or its analysis;
- Rushing to make decisions before the data is adequately investigated, assessed and understood;
- Using the data to blame or shame others, to increase others’ resistance to needed change, or to pit one group against another.
The Right Information ensures the data reported to others...

- Is objective, unbiased;
- Contains the appropriate level of detail for the audience;
- Is relevant to the audience and takes into account...
  ◦ their role in the organization
  ◦ their span of control and the scope of their influence
  ◦ the decisions they have to make
  ◦ the questions they have, and...
  ◦ the questions from others they have to answer.

The Right Time to Report is...

- When the audience can listen uninterrupted, free from distractions;
- In time to do something with the information;
- When the length of the report fits the time available.

The Right Audience is those who can act on the information presented, and might be:

- Staff
- Managers
- Senior leaders
- The Quality Management Team
- Medical Staff
- Governing Board
- Others: community, regulators

The Right Way refers to the presenter’s attitude and style, which is best when it...

- Focuses on process and system opportunities, not people as the problems;
- Considers the way the audience prefers to receive information when formatting the report;
- Uses formatting to focus the audience on the specific points they need to notice;
- Uses language the audience can understand while learning the quality vocabulary.
New PI Coordinator Education

Performance Reporting, cont

Report Formats

“A Picture Speaks a Thousand Words”

Evaluate the strengths and weaknesses of some common report formats.

Verbal or written “The 2nd quarter mortality rate was 2.9. There were 9 ADEs, and 6 nosocomial infections. Overall, 80% of our patients were satisfied. 4 staff positions turned over.”

Strengths: Weaknesses:

Table (matrix) Strengths: Weaknesses:

<table>
<thead>
<tr>
<th></th>
<th>J</th>
<th>F</th>
<th>M</th>
<th>Q1</th>
<th>A</th>
<th>M</th>
<th>J</th>
<th>Q2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mortality Rate</td>
<td>2.0</td>
<td>2.5</td>
<td>2.2</td>
<td>2.2</td>
<td>3.5</td>
<td>2.7</td>
<td>2.5</td>
<td>2.9</td>
</tr>
<tr>
<td>ADE’s</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>NIR’s</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0.3</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Customer Sat</td>
<td>85</td>
<td>86</td>
<td>85</td>
<td>85</td>
<td>82</td>
<td>79</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Turn-over rate</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0.3</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>1.3</td>
</tr>
</tbody>
</table>
New PI Coordinator Education

Performance Reporting, cont

Table (matrix) with highlighting

<table>
<thead>
<tr>
<th></th>
<th>J</th>
<th>F</th>
<th>M</th>
<th>Q1</th>
<th>A</th>
<th>M</th>
<th>J</th>
<th>Q2</th>
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</thead>
<tbody>
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<td>2.2</td>
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<td>2.9</td>
</tr>
<tr>
<td>ADE’s</td>
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<td>1</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>NIR’s</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0.3</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Customer Satisf</td>
<td>85</td>
<td>86</td>
<td>85</td>
<td>85</td>
<td>82</td>
<td>79</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Turn-over rate</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0.3</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>1.3</td>
</tr>
</tbody>
</table>

Strengths:

Weaknesses:

Dashboard Table (matrix)

<table>
<thead>
<tr>
<th></th>
<th>J</th>
<th>F</th>
<th>M</th>
<th>Q1</th>
<th>A</th>
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<th>J</th>
<th>Q2</th>
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<tbody>
<tr>
<td>Mortality Rate</td>
<td>2.0</td>
<td>2.5</td>
<td>2.2</td>
<td>2.2</td>
<td>3.5</td>
<td>2.7</td>
<td>2.5</td>
<td>2.9</td>
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<tr>
<td>ADE’s</td>
<td>1</td>
<td>1</td>
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<td>2</td>
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<tr>
<td>NIR’s</td>
<td>0</td>
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<td>0</td>
<td>0.3</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
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<td>85</td>
<td>85</td>
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</tr>
<tr>
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<td>1</td>
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<td>0.3</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>1.3</td>
</tr>
</tbody>
</table>

Strengths:

Weaknesses:
New PI Coordinator Education

Performance Reporting, cont

Run Chart with threshold or benchmark

![Run Chart with threshold or benchmark](image)

Strengths:
Weaknesses:

Histogram, Bar Graph

![Histogram, Bar Graph](image)

Strengths:
Weaknesses:
New PI Coordinator Education

Performance Reporting, cont

Trended Dashboard

<table>
<thead>
<tr>
<th>Acute MI</th>
<th>Aug 2005</th>
<th>Assessment</th>
<th>Trending</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMI # 1: EKG for ED acute MI cases is completed within 10 minutes of ED arrival.</td>
<td>10 min</td>
<td>Goal: /= 10 min.</td>
<td>On target.</td>
</tr>
</tbody>
</table>

Strengths:
Weaknesses:

Spidergram, Radar Graph

Medical Records: % Documentation Completed

- Face sheet: 98%
- Immunizations: 38%
- Physician orders: 65%
- H & P complete: 100%
- Inf consents: 100%
- Nursing assessment: 95%
- Nursing care plan: 98%
- Pt/family ed: 45%
- Discharge planning: 35%
- Discharge summary: 100%
- Inf consents: 100%

Strengths:
Weaknesses:
New PI Coordinator Education

Regulatory Surveys

Going through a survey can feel like being looked at intently under a microscope.

Nothing helps ease the anxiety and tension surveys can generate like being prepared for them.

A regulatory survey of any kind is an external assessment of how well the organization ‘measures up’ compared with the requirements for licensure or providing certain services, like imaging or blood transfusion.

Tip for Coordinators:

If your role includes functioning as the survey coordinator in your facility, you may need to prepare for several of the following types of survey:

- State Licensure survey
- CAH Medicare Certification survey
- State Investigation of Complaint survey
- Life Safety Survey
- OSHA survey
- Voluntary certifications surveys, like Joint Commission or ISO 9000
- Nursing Home
- Rural Health Clinic
- Home Care/Hospice
Tips for Preparing For CAH Medicare & Licensure Surveys

NOW

- Familiarize yourself with all of the surveys you should anticipate in your facility
- Clarify your responsibilities related to each one
- Find the results of the last survey for all you are responsible for
- Note the date and findings of those surveys
- Address any Conditions out of compliance or Immediate Jeopardy citations immediately

** Don’t forget to check for long term care, home health, hospice, and rural health clinic surveys if your facility also provides those services

AS SOON AS POSSIBLE

Start a survey prep calendar

Estimate when you can expect to see surveyors for each survey listed

** For State Licensure and Medicare certification surveys, the interval for facilities that do not have a Condition out of compliance is ~ 3 years. Expect to have a Life Safety survey at or near the same time.

6 to 12 MONTHS PRIOR TO SURVEY

- Using your quality committee for oversight, charter a Survey Preparation Team (or use your quality committee to perform this function)
- Include on the team administration, quality and key department/service directors
- Review the results of the last survey with your team; verify that all deficiencies have been corrected and corrections are being maintained.
- As a team, read through each of the CoPs and survey tags
- Discuss and document what the facility is doing to meet all requirements, and where needed documentation ‘ to prove it’ is located
- Make written plans to correct all prior deficiencies, standards not currently met and mis-placed documentation; include in the plans who is responsible for each correction and a task completion date
- Review the Plan for Correction at each subsequent survey prep meeting until all standards are met and all documentation is located and easily accessible
6 to 12 MONTHS PRIOR TO SURVEY, cont

- Consider having a mock survey
- Work with Maintenance, Environmental Services and/or the Safety Committee to verify all requirements of the Life Safety Code are met; test alarms, fire doors, sprinklers, dampners, etc., to ensure proper functioning

** Repairing all penetrations of fire walls is a constant survey issue; ensure someone on the team actively looks for them!

3 to 6 MONTHS PRIOR TO SURVEY

- Meet weekly with the survey review team; review all standards a second time; document and correct any deficiencies or issues identified
- Verify that all biomedical equipment maintenance is current
- Verify that all medical records are complete and properly secured
- Go through all patient care areas checking for and disposing of all outdat-ed drugs or supplies
- Inspect the kitchen for cleanliness and all food handling requirements
- Visit each department and examine QC records for the proceeding 12 months for completion; ensure the details of any corrective actions needed have been documented and implemented
- Verify all committees, including IC and P & T, are ready for survey
- Gather and organize in one binder all of the performance improvement team reports and data from the previous 12 month period
- Review the most recent CAH Periodic (Annual) Program Evaluation; familiarize yourself with the findings and current program goals; verify that progress toward those goals is being monitored routinely by the appropriate facility committee/team

1 to 3 MONTHS PRIOR TO SURVEY

- Meet weekly with the survey review team; review all standards still out of compliance; document and implement a plan for correction immediately
- Repeat any step above in which you found an issue of non-compliance
- Check under-sink and storage areas, refrigerators, freezers for any outdated drugs or supplies; dispose of any found
- Verify each department is ready for survey, and all staff are comfortable describing to a surveyor a performance improvement project
Survey Preparation Tips, cont.

1 MONTH PRIOR TO SURVEY: CLARIFY WITH THE SURVEY PREP TEAM:

- Who will announce the surveyors’ arrival; it helps to script beforehand what should announced overhead when they arrive (for example: “Facility XYZ welcomes the organization represented by the surveyors”…)
- Who will attend the opening conference and daily briefings
- Who will substitute for the administrator should he/she be absent at time of survey
- Where you will locate the surveyors in the facility (near phone, copy machine, rest rooms)
- Who will accompany surveyors when they visit patient care areas (never let them go alone)
- Who will take notes about surveyors comments, questions as they visit patient care areas
- Who will respond to surveyors’ requests for additional information/documentation during the survey
- A process for providing the surveyors fresh beverages throughout the day, including water and coffee. Consider providing light morning and afternoon snacks as well.
- Whether or not you will provide surveyors’ meals while onsite. If you plan to do so, clarify that process.

SURVEY ETIQUETTE

- Be polite, courteous and helpful at all times
- Never argue with the surveyors; if you think they are wrong, produce documentation that demonstrates how you are meeting a standard in question
- Refrain from volunteering information unless it demonstrates how you have met a standard well; attempt to answer questions truthfully without leading the surveyor to potential problem areas
- If you don’t know the answer to a question, don’t fake it. Refer the surveyor or to someone who can answer their question

Continuous Survey Readiness: the best way to prepare

- Monitor for maintenance of prior deficiency corrections regularly
- Keep “survey preparation” on your quality management team’s agenda
- Consider including compliance problem areas in your CAH Periodic (Annual) Program Evaluation work plan
CAH Periodic (Annual) Program Evaluation: Essential Elements

The Requirement: CoP §485.641; Tag C-0330
Periodic evaluation and quality assurance review

The Stated Purpose:
- to determine if the utilization of services was appropriate;
- to determine if patient care policies were implemented;
- to determine if any changes are needed.

CMS Expectations for the Evaluation

1. “Periodic” means at least once a year
   However, portions of the review can be conducted in an ongoing fashion throughout the year and the results presented at the annual evaluation meeting. Two good examples are using an ongoing approach to the review of active closed records, and for required policies review, revision and approval. You can shorten the time required to conduct the annual evaluation meeting when these two elements are conducted throughout the year and only the results are presented during the evaluation meeting.

2. “Total program” means all of the departments and services affecting patient care, health and safety (C-0337)
   a. The review should not be limited to purely clinical departments and services. Services traditionally considered to be “non-clinical” that affect patient health and safety include human resources, the environment of care including laundry services, materials management or purchasing, information management, medical staff appointment and privileging, and others.
   b. At a minimum, the evaluation must include:

   ⇒ The utilization of services:
     ◦ this includes the types of services provided, the volume of those services, and the number of patients served.
     ◦ Examples: # inpatients, swing bed patients, surgeries, deliveries, observation patients, ER visits, outpatient visits, etc.
The CAH Program Periodic Evaluation includes, cont

⇒ A representative sample of both active and closed clinical records.

* The interpretive guidelines for tag C 333 state: “A representative sample means not less than 10% of both active and closed clinical records.”

* If you provide emergency, inpatient and outpatient services, they will want to see you have reviewed 10% of your emergency cases, 10% of your inpatient services, and 10% of your outpatient cases.

* **this 10% review requirement is NOT the same as the peer review requirements discussed in Tags C-195, 260, 339, and 340!**

* The purpose of this review is to determine if the utilization of services was appropriate and if established policies/procedures were followed.

⇒ The review and revision as needed of patient care policies.

The policies reviewed and revised annually must include all patient assessment, treatment and documentation policies or procedures, regardless of the department providing the services (medical staff, nursing, surgery, lab, imaging, dietary, therapies, medical records, etc).

3. **Draw Conclusions**

From the discussion that takes place during the evaluation, generate a work plan identifying needed changes and the mechanisms for making those changes, i.e., a plan for improving the CAH’s performance over the next 12 months. Present this work plan to the quality management team and Board of Directors for review, revision as needed, and approval. This is an important step in building consensus and cooperation, focusing and aligning the organization’s improvement efforts and obtaining needed resources for making improvement.

4. **Implement the CAH Program improvement plan over the next 12 months.**

Monitor and report progress at least once a quarter throughout the year. At the end of the year, assess progress and the effectiveness of the organization in implementing its improvement plan as part of the next CAH Periodic (Annual) Program Evaluation.
5. Participants

a) The annual evaluation should be conducted by the organization’s senior leadership. At a minimum, include the chief executive officer/administrator, a physician, a mid-level provider, nursing leadership and the quality management director/coordinator. Other leaders and/or staff may be invited to participate as the organization desires, either ad hoc or as a member of the evaluation team.

b) If the organization’s patient care policy review is conducted as a single meeting and as part of the CAH Periodic Evaluation meeting, a physician, a mid-level provider and an individual who is not a member of the CAH staff must all be in attendance (see tag C-0272).

c) When possible, invite a member of the Board to participate in the evaluation process and report to the Board the evaluation outcomes. This further aligns the mission, vision and goals of the organization and builds collaborative effort and cooperation.

d) Consider inviting a member of the community to participate in the evaluation if your organization is striving to improve patient/family/community satisfaction and/or developing and implementing patient-centered care models.

**Tip for Coordinators: Maximize the effectiveness of your Periodic Program Evaluation**

- Conduct your CAH Program Evaluation as part of a larger annual quality/ performance improvement program evaluation.
  - If your organization provides long term care, home health care, hospice care, assisted living or any other non-hospital setting services, conduct all of your evaluations at the same time, linking together common strategic goals.
  - If possible, schedule your CAH Program Evaluation to be conducted two or three months before your organization’s budget cycle begins. Request needed resources as part of he next routine budget cycle.
- Develop strategic vision. Incorporate objectives from the organization’s strategic plan into the CAH Program Evaluation, work plans for improvement and routine performance monitoring.
Your Hospital

CAH Annual Program Evaluation

Meeting Date, Time and Location

Review Period: July 1, 2004 to June 30, 2005

AGENDA

1. Utilization of CAH services review
2. Medical records review
3. Patient care policies review
4. Professional staff
5. Other
6. CAH past year work plan review
7. CAH current year Work plan development

*** THE FOLLOWING TABLES, DATA AND TEXT ARE FICTICIOUS!!

You may use the format and/or measures, but not the data or text.***
I. Volume Indicators:

<table>
<thead>
<tr>
<th>Measure</th>
<th>Facility</th>
<th>Bench-</th>
<th>PIN</th>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total CAH admits</td>
<td>360</td>
<td>547</td>
<td>503</td>
<td>variance: -34</td>
</tr>
<tr>
<td>CAH hospital average daily census</td>
<td>1.42</td>
<td>2.86</td>
<td>4.3</td>
<td>variance: -</td>
</tr>
<tr>
<td>CAH average length of stay in</td>
<td>60 hours</td>
<td>96 hours</td>
<td>78 hours variance: OK</td>
<td></td>
</tr>
<tr>
<td>Total observation admits</td>
<td>48</td>
<td>54</td>
<td>43</td>
<td>variance: -11</td>
</tr>
<tr>
<td>Deliveries</td>
<td>38</td>
<td>50</td>
<td>53</td>
<td>variance: -24</td>
</tr>
<tr>
<td>Inpatient surgery, total cases</td>
<td>63</td>
<td>60</td>
<td>62</td>
<td>variance: + 5</td>
</tr>
<tr>
<td>Outpatient surgery, total cases</td>
<td>88</td>
<td>80</td>
<td>78</td>
<td>variance:</td>
</tr>
<tr>
<td>Swing Bed (SB) admissions</td>
<td>96</td>
<td>90</td>
<td>85</td>
<td>variance: + 6</td>
</tr>
<tr>
<td>Swing Bed patient days</td>
<td>848</td>
<td>730</td>
<td>480</td>
<td>variance: +16</td>
</tr>
<tr>
<td>SB average daily census</td>
<td>2.3</td>
<td>2</td>
<td>.08</td>
<td>OK</td>
</tr>
<tr>
<td>Swing bed average length of stay</td>
<td>23.58</td>
<td>20</td>
<td>7</td>
<td>investigate</td>
</tr>
<tr>
<td>Total ER visits</td>
<td>1340</td>
<td>1210</td>
<td>1157</td>
<td>variance: +11</td>
</tr>
<tr>
<td>ER visits per month</td>
<td>109</td>
<td>101</td>
<td>105</td>
<td>variance: + 8</td>
</tr>
<tr>
<td>% ER visits transferred to AC fac-</td>
<td>9 %</td>
<td>8 %</td>
<td>10 %</td>
<td>OK</td>
</tr>
<tr>
<td>CAH admts from ER, % total ad-</td>
<td>57.82%</td>
<td>53%</td>
<td>55 %</td>
<td>OK</td>
</tr>
<tr>
<td>Outpatient visits (total lab, rad,</td>
<td>15,840</td>
<td>14,000</td>
<td>12,800</td>
<td>variance: +</td>
</tr>
</tbody>
</table>

Assessment and Recommendations:

Overall admissions did not meet budgeted expectations for the year. Newborn deliveries fell below prior year due to provider leaving the organization. Recruitment for a new OB/GYN is underway. Surgical case rate is on target. Swing bed admissions are similar to peers, but length of stay substantially longer with overall daily census exceeding expectations. ER visits exceeded expectations; ancillary service visits grew at a rate that exceeded budgeted projects for the third straight year.

Continue recruitment of OB/GYN. Investigate the significance of increased swing bed length of stay. Continue to market ancillary and outpatient services. When ER visits routinely exceed 150% of budget, begin recruitment of additional midlevel staff.
II. Clinical Care and Utilization Review:

<table>
<thead>
<tr>
<th>Measure</th>
<th># Cases</th>
<th># Cases reviewed</th>
<th>% Cases Reviewed</th>
<th>Meets Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAH Mortality rate, inpatient</td>
<td>15</td>
<td>15</td>
<td>100 %</td>
<td>✓</td>
</tr>
<tr>
<td>CAH readmit w/i 30 days</td>
<td>24</td>
<td>5</td>
<td>21 %</td>
<td>✓ open</td>
</tr>
<tr>
<td>CAH nosocomial infections</td>
<td>6</td>
<td>6</td>
<td>100 %</td>
<td>✓ open</td>
</tr>
<tr>
<td>Mortality, ER</td>
<td>27</td>
<td>27</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Return to ER w/i 3 days</td>
<td>18</td>
<td>5</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Mid-level ER case review by phys</td>
<td>1058</td>
<td>1058</td>
<td>100 %</td>
<td>✓</td>
</tr>
<tr>
<td>Active and consulting MS + AHPs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IP &amp; OP cases, int review</td>
<td>599</td>
<td>36</td>
<td>6 %</td>
<td>✓</td>
</tr>
<tr>
<td>IP &amp; OP cases, ext review</td>
<td>599</td>
<td>48</td>
<td>8 %</td>
<td>✓</td>
</tr>
<tr>
<td>Surgery</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tissue review</td>
<td>123</td>
<td>123</td>
<td>100 %</td>
<td>✓</td>
</tr>
<tr>
<td>external peer review</td>
<td>151</td>
<td>20</td>
<td>13%</td>
<td>✓</td>
</tr>
<tr>
<td>Anesthesia</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>adverse reactions</td>
<td>5</td>
<td>5</td>
<td>100 %</td>
<td>✓</td>
</tr>
<tr>
<td>IV Conscious sedation</td>
<td>24</td>
<td>24</td>
<td>100 %</td>
<td>✓</td>
</tr>
<tr>
<td>CRNA external peer review</td>
<td>151</td>
<td>15</td>
<td>10 %</td>
<td>✓</td>
</tr>
<tr>
<td>Blood use, transfusions</td>
<td>120</td>
<td>120</td>
<td>100%</td>
<td>✓</td>
</tr>
<tr>
<td>Radiology, ext review</td>
<td>3049</td>
<td>160</td>
<td>5 %</td>
<td>✓</td>
</tr>
<tr>
<td>Inpatient Collabs, PIN &amp; QIO</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute MI</td>
<td>6</td>
<td>6</td>
<td></td>
<td>✓ 594 Open</td>
</tr>
<tr>
<td>Heart Failure</td>
<td>45</td>
<td>45</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adult immunizations</td>
<td>243</td>
<td>243</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community-acquired pneumonia</td>
<td>92</td>
<td>92</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Surgical infection prevention</td>
<td>151</td>
<td>151</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ED assessment and transfer</td>
<td>134</td>
<td>134</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nursing documentation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IP</td>
<td>360</td>
<td>36</td>
<td></td>
<td>✓ 18 open</td>
</tr>
<tr>
<td>ER/OP</td>
<td>1340</td>
<td>120</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Therapies</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PT/OT</td>
<td>725</td>
<td>75</td>
<td></td>
<td>✓ 59 open</td>
</tr>
<tr>
<td>RT</td>
<td>460</td>
<td>45</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total CAH cases</td>
<td>6022</td>
<td>3928</td>
<td>65.2 %</td>
<td>✓</td>
</tr>
<tr>
<td>Open</td>
<td>682</td>
<td></td>
<td>17.4 %</td>
<td>✓</td>
</tr>
<tr>
<td>closed</td>
<td>3246</td>
<td></td>
<td>82.6 %</td>
<td>✓</td>
</tr>
</tbody>
</table>
New PI Coordinator Education

Sample Periodic Review, cont

III. Patient Care Policies Review

The CAH reviews its patient care policies on a quarterly basis by the Policies and Procedures Committee. Standing members of the committee include a physician, mid-level provider, the acute care director of nursing, the performance improvement director/coordinator, and a volunteer from the community. See the “Policies and Procedures” policy for more information. The CAH has made the following policy changes in response to needs identified throughout the year:

<table>
<thead>
<tr>
<th>Revised and Approved</th>
<th>New</th>
<th>Pending Approval</th>
</tr>
</thead>
<tbody>
<tr>
<td>ER- Chest pain protocol</td>
<td>HF Discharge instructions sheet</td>
<td>Nutrition- mechanical diet</td>
</tr>
<tr>
<td>ER- Chest pain flow sheet</td>
<td>Adult pneumonia immunizations</td>
<td>Anes- malignant hyperthermia</td>
</tr>
<tr>
<td>ER- EKG</td>
<td>IC- wound care discharge sheet</td>
<td>Surgery- PACU discharge</td>
</tr>
<tr>
<td>ER- Transfer policy</td>
<td>Pharmacy- use of Pyxis</td>
<td>Lab- Compatibility testing revision</td>
</tr>
<tr>
<td>ER- transfer form</td>
<td>RT- standing orders, O2 sats</td>
<td></td>
</tr>
<tr>
<td>ER- Consent to transfer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IC- wound care protocol</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pharmacy- after hours meds</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Compliance with policies is monitored through medical record review conducted within specific departments of the CAH. The results of some of the studies useful in evaluating policy compliance are as follows:

<table>
<thead>
<tr>
<th>Study</th>
<th>Department</th>
<th>Compliance</th>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provider time to ER</td>
<td>Med staff</td>
<td>100 %</td>
<td>Meets expectations</td>
</tr>
<tr>
<td>H &amp; P completion timely</td>
<td>Med staff</td>
<td>92 %</td>
<td>Up from 72 % ’04</td>
</tr>
<tr>
<td>MR delinquency rate</td>
<td>Med staff</td>
<td>5 %</td>
<td>Meets expectations</td>
</tr>
<tr>
<td>Nursing care plan</td>
<td>nursing</td>
<td>100 %</td>
<td>Meets expectations</td>
</tr>
<tr>
<td>AMI protocol implemented</td>
<td>PI dept</td>
<td>100 % after 12/31/05</td>
<td>Up from 20 % prior</td>
</tr>
<tr>
<td>Adult immunizations</td>
<td>PI dept</td>
<td>25 %</td>
<td>Target = 100 %</td>
</tr>
<tr>
<td>Organ donation</td>
<td>PI dept</td>
<td>100%</td>
<td>Meets expectations</td>
</tr>
<tr>
<td>Performance evals timely</td>
<td>HR</td>
<td>98 %</td>
<td>Up from 60% ’04</td>
</tr>
<tr>
<td>Fire drills conducted</td>
<td>Engineering</td>
<td>100 %</td>
<td>Meets expectations</td>
</tr>
</tbody>
</table>
New PI Coordinator Education

Sample Periodic Review, cont

IV. Professional Staff

<table>
<thead>
<tr>
<th>Measure</th>
<th>Facility</th>
<th>Benchmark</th>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>% timely reappointment</td>
<td>60 %</td>
<td>100 %</td>
<td>improve</td>
</tr>
<tr>
<td>% Board certified</td>
<td>100 %</td>
<td>75 %</td>
<td>Exceeds expectations</td>
</tr>
<tr>
<td>Av # hours CME, annually</td>
<td>25</td>
<td>15</td>
<td>Exceeds expectations</td>
</tr>
<tr>
<td>attendance: med staff cmtee meetings</td>
<td>80 %</td>
<td>80 %</td>
<td>OK</td>
</tr>
<tr>
<td>Med staff satisfaction score</td>
<td>90.0</td>
<td>90.0</td>
<td>OK</td>
</tr>
<tr>
<td>comprehensive Bylaws review</td>
<td>2003</td>
<td>Every 3 yrs</td>
<td>Due in 2006</td>
</tr>
</tbody>
</table>

Assessment and Recommendations:

The reappointment process needs improvement. Reappointment requests are not received in time to process them for quarterly medical staff and Board meetings. Throughout the year, privileges have lapsed and when the provider needs to be on call, temporary privileges have been granted to allow the individual to work until the next cycle of medical staff and Board meetings. All of the CAH’s providers are Board-certified. Providers were able take time to meet certification CME requirements. Med staff satisfaction meets goals. A comprehensive review of the Bylaws is due in 2006.

Administration needs to work with medical staff leadership to improve the process for timely provider reappointments before privileges lapse.

V. Other

a) Consider continuing the above format for reporting the performance measurement, evaluation and recommendations for improvement in these other key areas of organization performance:

   - Environment of care
   - Financial performance, including productivity measures
   - Human resources
   - Information management
   - Patient safety and risk management
   - Patient satisfaction
   - Patient safety, risk management and/or workers’ comp
   - Performance improvement department/service
   - Staff satisfaction

b) Consider combining the CAH annual evaluation with other quality management annual evaluations the organization may be responsible for performing (long term care, home care, hospice, others) and addressing all of them at the same time, reporting to the Performance Improvement Program/Quality Management team.
New PI Coordinator Education

Sample Periodic Review, cont

**Your CAH**  
**Date of the Annual Eval**

**CAH Program Work Plan**  
**FY 2005-2006**

<table>
<thead>
<tr>
<th>Who</th>
<th>Will Do What</th>
<th>By When</th>
<th>Follow up</th>
<th>Complete</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEO</td>
<td>Continue OB/GYN recruitment</td>
<td>Ongoing</td>
<td>Quarterly</td>
<td></td>
</tr>
<tr>
<td>PI</td>
<td>Investigate ↑ SB-LOS</td>
<td>Q3 2005</td>
<td>Q3 2005</td>
<td></td>
</tr>
<tr>
<td>Admin, marketing</td>
<td>Market ancillary &amp; OP services</td>
<td>Annual report; Q1 2006</td>
<td>March 2006</td>
<td></td>
</tr>
<tr>
<td>CFO</td>
<td>Monitor ER visits for &gt; 150% of budget</td>
<td>Ongoing</td>
<td>Quarterly</td>
<td></td>
</tr>
<tr>
<td>NS, MR, PI, MS ad hoc</td>
<td>Adult immunizations- PI team</td>
<td>Initiate Q3 2005</td>
<td>Monthly until complete</td>
<td></td>
</tr>
<tr>
<td>Anesthesia, MS</td>
<td>Malignant hyperthermia protocol</td>
<td>12/05</td>
<td>Q1 2006</td>
<td></td>
</tr>
<tr>
<td>PI</td>
<td>ID opportunities &amp; participate in HIT collab</td>
<td>Q1 2006</td>
<td>Q1 2006</td>
<td></td>
</tr>
<tr>
<td>MR</td>
<td>Forward ER returns to Chief of MS for review</td>
<td>July 2005 &amp; ongoing</td>
<td>Quarterly</td>
<td></td>
</tr>
<tr>
<td>Admin, MS, PI</td>
<td>Improve timeliness of reappointment</td>
<td>Q4 2005</td>
<td>Quarterly</td>
<td></td>
</tr>
<tr>
<td>Admin, MS, PI</td>
<td>Comprehensive review of MS By-laws</td>
<td>3/06</td>
<td>April 2006</td>
<td></td>
</tr>
</tbody>
</table>

**Reviewed, Comments and Approved:**

Quality Management Team________________________________________Date ______________
Medical Staff __________________________________________________Date ______________
Governing Board ________________________________________________Date ______________
APPENDIX OF RESOURCES

For Quality Managers

Abbreviations, Acronyms, Definitions 77

Common Math Terms and Calculations 82

Helpful Internet Websites 84

National Quality Agenda Information 88

CMS Standards Supported by PIN 93

Sample 2567

“What gets measured gets managed.
But not everything that can be measured is worth managing...
And not everything that should be managed can be easily measured.”
Quality Management Abbreviations, Acronyms and Definitions

**Action Plan**  Set of initiatives to be taken to achieve a performance improvement goal.

**BSC**  Balanced Scorecard. Multidimensional performance metrics linked to strategic plan implementation. Metrics target perspectives or focus areas, often four. Perspectives typically include customer, internal processes, staff learning and growth, and performance.

**Benchmark**  Systematically comparing the products, services, and/or outcomes of a process or system with those from a similar organization, or with state, regional or national outcomes or standards.

**CAH**  Critical access hospital

**Clinical**  Diagnosis-specific medical actions, interventions and/or treatment regimens **Guidelines** presented in a step-by-step fashion to aid consistent implementation.

**CIP**  A group of volunteer medical staff from PIN member critical access hospitals who lead and guide the Clinical Improvement Studies program.

**CIS**  Clinical Improvement Studies. An ongoing collaboration among PIN members to improve clinical care quality in critical access hospitals in Montana.

**Clinical Practice Standards**  Clinical practice criteria against which the decisions and actions of healthcare practitioners and other representatives of healthcare organizations are evaluated.

**Closed Record Review**  The examination of health records assumed to be complete with respect to all necessary and appropriate documentation. A required element in the CAH State Operations Manual (SOM).

**CMS**  Centers for Medicare and Medicaid Services
CoP Condition of Participation in the federal Medicare program

Credential Process of collecting and evaluating information related to an independent healthcare provider’s qualifications for practice his/her profession. The information collected and evaluated includes the individual’s education, licenses, certifications, professional performance and peer recommendations. Credentials information is used by the administrator, medical staff and governing board to assist the Board in making an informed decision concerning whether or not to grant an applicant permission to participate in the organized medical staff and/or provide specific health care services privileges) for the organization.

Customers Individuals who receive the products, care or services generated by someone else.

Dashboard A color-coded performance reporting format in which many metrics are tabulated and/or graphically displayed in a single tool.

DHHS Dept of Health and Human Services. The federal agency headquartered in Washington, DC which oversees the nation’s Medicare program.

DPHHS Dept. of Public Health and Human Services. The state agency in Montana conducting State healthcare facilities licensing surveys and Medicare certification surveys. Non-provisional licensure and certification periods may range from one to three years.

EBM Evidence Based Medicine. Diagnosis-specific care processes or interventions which researchers have statistically linked to achieving the best possible outcomes for that diagnosis.

External Customers Customers who indirectly receive the products, care or services generated by someone else.

FMEA Failure modes and effects analysis. A systematic approach to identifying where a critical system might fail, what the results of the failure are likely to be, and identification of steps which can be taken to reduce the chance of system failure. Like RCA, however this approach is used proactively to prevent the system failure and potential significant patient harm.

HCAHPS Hospital Consumer Assessment of Health Providers and Systems, a patient satisfaction survey developed by CMS to obtain feedback from hospital Medicare patients about the quality of care they received.
**New PI Coordinator Education**

*Quality Management Abbreviations, Acronyms and Definitions, cont*

- **HIE**  
  Health information exchange

- **HIM**  
  Healthcare information management

- **HIT**  
  Healthcare information technology

- **Internal Customers**  
  Customers who directly receive the products, care or services generated by someone else.

- **Metric**  
  Synonym for a performance measure.

- **Mission**  
  The purpose for or reason why something exists.

- **Monitor**  
  a) The action of routinely collecting data about a specific process to ensure that acceptable performance is maintained  
  b) The performance measure used to routinely monitor a specific process.

- **Open Record Review**  
  The examination of health records with respect to all necessary and appropriate documentation prior to the patient’s discharge from the health care site. A required element in the CAH State Operations Manual (SOM).

- **Outcome**  
  End result of a process or system.

- **P4P**  
  Pay for Performance. A method of Medicare payment currently being implemented by CMS the level for prospective payment hospitals (PPS) in which the level of payment is directly related to the organization’s performance as measured against a standardized measure set.

- **PI**  
  Performance Improvement. An organization-wide management philosophy that assumes the performance of an organization can and should be continuously improved by improving the quality of decision-making. Decision-making is based on the assessment of objective measures of performance. Like QI, but the focus is broader than clinical services.
**New PI Coordinator Education**

*Quality Management Abbreviations, Acronyms and Definitions, cont*

**PI Council/Committee**  
Several senior organization members meeting as a multidisciplinary team specifically to coordinate, integrate and manage the organization’s performance improvement focus, resources and activities. Team members have the authority to make and implement important decisions for the organization. See also “quality management team”.

**PI Team**  
A multidisciplinary team which meets to improve a specific organization process or system.

**Performance**  
A clearly defined objective way to evaluate the performance of a process or **Measure** system.

**PIN**  
Performance Improvement Network. A voluntary association of critical access hospitals (CAHs) collaborating to improve health care quality in Montana.

**Privileges**  
List of specific medical activities, interventions, procedures and/or treatments a medical provider is allowed to perform for a healthcare organization.

**Process**  
A series of activities undertaken by which work is done or a task is completed.

**QA**  
Quality Assurance. Quality/performance monitoring activities focusing on the collection of data related to the outcomes of patient care activities, treatments, procedures, or other interventions. Data are usually collected retrospectively, that is, after the patient is discharged and/or the medical record is closed.

**QC**  
Quality Control. Quality/performance monitoring activities required by law.

**QI**  
Quality Improvement. Like performance improvement but focused on the improvement of clinical care activities, treatments, procedures and/or services.

**QIO**  
Quality Improvement Organization. An organization CMS contracts with to oversee the quality of healthcare services provided to Medicare beneficiaries. Mountain Pacific Quality Health (MPQH) holds the QIO contract for Montana.
RCA  Root-cause Analysis. A systematic approach to understanding the root causes of a significant, undesirable adverse event. An investigation is performed by a multidisciplinary team composed of individuals involved in the event and facilitated by performance improvement staff. The expected outcome is a plan for improving organization performance, and a plan for the ongoing monitoring of performance related to the systems failures identified by the RCA. Like FMEA, except that an RCA is conducted after the event has occurred.

SE  Sentinel Event. An unexpected patient care event resulting in the death or serious permanent injury or disability of a patient. The definition extends to events which, if repeated, carry the risk of resulting in the death or serious, permanent injury or disability of a patient. CMS requires some sentinel events to be reported to the State DPHHS. A root cause analysis must be performed by the organization and a plan for prevention of further occurrences implemented in response to a sentinel event.

Stakeholder  An individual or group with a vested interest in a process or system outcome.

SOM  State Operations Manual. The manual containing the regulatory requirement standards and guidance for implementation of Medicare programs provided by CMS to the states. Healthcare organizations desiring to receive Medicare payments (either prospectively or by reimbursement) must fully meet all requirements in order to receive certification as a qualifying entity for payment. The degree of implementation is verified by the State through an onsite survey of the organization, its services and care outcomes. The SOM for CAHs is titled Appendix W.

Strategy  A planned approach for accomplishing a task or goal.

Strategic Plan  A planning document generated by the governing and executive leadership of an organization which identifies specific strategies the organization will employ to accomplish its mission over a stated time period.

System  A group of related work processes.

Vision  A description of the ideal state of the organization.
Math Terms and Calculations Commonly Used by Quality Management

**Frequency**
Count data, how often something happened or was observed
Denoted in equations by the letter ‘x’

**Relative Frequency (RF)**
\[ RF = \frac{x}{n} \]
where ‘n’ is the number of data bits in the set

**Percent**
(relative frequency x 100) or \((\frac{x}{n} x 100)\)

**Range**
the spread of the data set
Subtract the lowest value in the set from the highest value

**Mean**
the average value of a data set
a) add up all of the data values
b) divide the total by the number of values in the data set
\[ \left(\frac{\text{sum of all values}}{\text{number of values}}\right) \] or the equation: \( \frac{\Sigma x}{n} \)

**Median value**
a) value exactly in the middle of an ordered list of values, if the number of values is odd
b) the average of the two middle data values in an ordered list of values, if the number of values is even
Math Terms and Calculations Commonly Used by Quality Management, cont

**Quartile** 3 values which together divide a data set into 4 equal parts
a) arrange data values in an ordered list of increasing value
b) find the median value- this is the second quartile
c) find the value midway between the median and the lowest value; this is the first quartile
d) find the value midway between the median value and the highest value; this is the third quartile

**Decile** 9 values which divide the data set into 10 equal parts
a) arrange data values in an ordered list of increasing value
b) find the value that divides the bottom 10% of data from the top 90%; this is the first decile
c) find the value that divides the bottom 20% of data from the top 80%; this is the second decile
d) continue as in steps b) and c) until all 9 decile values are determined
e) note that the ninth decile divides the bottom 90% of the data from the top 10% of the data
New PI Coordinator Education

Helpful Internet Websites

Agency for Healthcare Research and Quality (AHRQ)  
education, grant opportunities  
www.ahrq.gov

American College of Cardiology  
heart care treatment guidelines  
www.acc.org

American Hospital Association  
advocacy, public reporting, ed  
www.aha.org

American Lung Association  
pneumonia treatment guidelines  
www.lungusa.org

American Society for Healthcare Risk Management (ASHRM)  
risk management  
www.ashrm.org

American Society for Quality (ASQ)  
quality management ed, certification  
www.asq.org

Assoc. for Professionals in Infection Control & Prevention  
infection control, ICP certification  
www.apic.org

Centers for Disease Control & Prevention (CDC)  
infection control, surveillance  
www.cdc.gov

Centers for Medicare & Medicaid Services  
regulatory requirements & news  
www.cms.hhs.gov

Credentialing Resource Center  
credentialing, privileging  
www.opus.com

Federal Register  
federal code  
www.gpoaccess.gov/fr/index.html

Healthcare Compliance Company  
newsletters, education  
www.hcpro.com
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Internet Sites, cont

Credentialing & Privileging  
www.hcpro.com/credentialing-privileging/

Healthcare Quality Certification Board  
CPHQ certification  
www.cphq.org

Health Resources & Services Administration (HRSA)  
consulting, ed, strategic planning, grants  
www.ruralhealth.hrsa.gov

HospitalCompare  
public hospital performance reports  
www.hospitalcompare.hhs.gov/

Hospital Quality Alliance  
hospital performance reporting  
www.lumetra.com/hospitals/datreporting/hqa/index.asp

Institute for Healthcare Improvement (IHI)  
tools, education  
www.ihi.org/IHI

Institute of Medicine  
medication use, education  
www.iom.edu

Joint Commission on Accreditation of Healthcare Organizations  
JCAHO accreditation program  
www.jcaho.org

Medicare Quality Improvement Community (MedQIC)  
HIT readiness assessment tool  
www.medqic.org

MedLaw.Com  
EMTALA, other med-legal issues, forms  
www.medlaw.com/healthlaw

Montana Dept of Health & Human Services  
State regulations  
www.dphhs.mt.gov

Montana Health Network  
liability, risk management  
www.montanahealthnetwork.com

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Helpful Internet Sites, cont

MT Hospital Association
MHA and PIN information  www.mtha.org

Mountain Pacific Quality Health Foundation
MT Quality Improvement Org (QIO)  www.mpqhf.org

National Assoc. for Healthcare Quality (NAHQ)
education  www.nahq.org

National Fire Protection Assoc.

National Immunization Program
pneumonia immunizations  www.cdc.gov/nip

National Institute of Health (NIH)
news, education, grants  www.nih.gov

National Institute for Health Care Management
education  www.nihcm.org/finalweb/default.htm

National Institute for Occupational Safety and Health
occupational safety & health  www.cdc.gov/niosh/homepage

National Patient Safety Foundation
patient safety info & support  www.npsf.org

National Rural Health Association
quality, education, advocacy  www.nrharural.org

NursingHomeCompare
public NH performance reports  www.medicare.gov/nhcompare/home.asp

Occupational Safety and Health Administration (OSHA)
OSHA regs & education  www.osha.gov
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Helpful Internet Sites, cont

PIN
CAH resources & support
www.mtpin.org

PIN ListServe
PIN partners Q & A’s, tools, support
www.pin@list.mpqh.org

QI Partners ListServe
QIO region, Q & A’s, tools, support
qi-partners@list.mpqh.org

Quality Net Exchange
ed, performance reporting
www.gnetexchange.org/public

Rural Health Resource Center (TASC)
consulting, education
www.ruralcenter.org

State Operations Manual
CAH regs, version Jan 2008

Surgical Care Improvement Project (SCIP)
surgical care infection prevention measures
www.medqic.org/scip

The Greely Company
consulting, ed, strategic planning; physicians
www.greely.com

The Sullivan Group
EMTALA, Emergency Med ed, regs
www.thesullivangroup.com

VHA, Inc.
consulting, ed, regional collaboratives
www.vha.com
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The National Quality Agenda

The Centers for Medicare and Medicaid Services (CMS)

http://www.cms.hhs.gov

Most likely, you have already heard about CMS, The Centers for Medicare and Medicaid Services, in the course of your work, either in your current or a former position. Hospitals that provide medical treatment and services to patients who are Medicare and/or Medicaid beneficiaries must comply with a large number of federal and state regulations if they wish to be paid for the services provided to those beneficiaries.

There are so many terms and acronyms associated with these programs that it is not feasible to list and define them all. We will touch briefly on those you are most likely to encounter in your work as a quality/performance improvement professional.

Federal Legislation

The multi-volume book in which all federal laws are written is called the Federal Register. This book, divided into several sections, contains the laws which authorize the Medicare, Medicaid, Indian Health Services, Veteran Affairs and Children’s Health Insurance programs. The text within the Federal Register explains for states the rules, or ‘conditions’, they must follow if they want to participate in one or more of these programs. Altogether, they are called Conditions of Participation.

The primary pieces of legislation affecting hospitals, including critical access hospitals are:

⇒ **Medicare**: Title XVIII (18) of the Social Security Act; passed in 1965; administered by the Social Security Administration (SSA); this law authorizes the funding of a federal health care insurance program for Americans 65 years and older. **Part A** provides insurance for hospital care; **Part B** provides payments to physicians and other medical providers. Two separate federal agencies were responsible for overseeing these programs until 1977.

    1972: the program was expanded to provide insurance for disabled persons less than 65 years of age, and individuals with end-stage renal disease.

    1977: a new agency within the SSA was created to oversee both Medicare and Medicaid; it was called the Health Care Financing Administration, or HCFA.
The National Quality Agenda: Medicare, cont

⇒ 1972: HMO Act of 1972, providing start-up grants for health maintenance organizations
⇒ 1986: The Omnibus Reconciliation Acts of 1986; prospective payment and peer review organizations
⇒ 1985/1986: Consolidated Omnibus Reconciliation Act (COBRA); employer health insurance coverage mandates; launched EMTALA; CLIA authorized in 1988
⇒ 1987: Nursing home reform, Omnibus Reconciliation Act (OBRA) of 1987
⇒ 1988: Clinical Laboratory Improvement Act (CLIA); medical labs must be certified by CMS to receive payment for Medicare beneficiary lab services
⇒ 1989: physician payments based on resource-based relative value units
⇒ 1997: Balanced Budget Act (BBA): rate of payment increases to hospitals, physicians and nurse practitioners slowed down; Medicare + Choice (Medicare Part C) and State CHIP (SCHIP) programs created
⇒ 2001: HCFA was renamed the Centers for Medicare and Medicaid Services (CMS)
⇒ 2003: Medicare Prescription Drug, Improvement and Modernization Act (MMA); added Medicare Part D
⇒ 2006: Tax Relief and Health Care Act of 2006 (The Act): Part B physician payments directly linked to reporting on quality measures under the Physician Voluntary Reporting Program
⇒ 2010: Patient Protection and Affordable Care Act (PPACA); national healthcare reform
⇒ 2011: hospital value-based purchasing, under the PPACA

Medicare Beneficiary Quality Improvement Project includes CAHs

The State Operations Manual (SOM)

The Conditions of Participation required for states and their individual health care providers to comply with (including critical access hospitals) are contained in a manual published by CMS called the State Operations Manual.

The State Operations Manual (SOM) for critical access hospitals is called Appendix W.

You can find the most current version of the manual at this link:

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The National Quality Agenda: Medicaid

⇒ Medicaid; (Title XIX (19) of the Social Security Act; passed in 1965, this law authorizes federal and state funding to pay for certain health care services for low income individuals. It also authorizes the Children’s Health Insurance Program.

Federal Requirements for Public Performance Reporting

In its efforts to improve the quality of healthcare delivered to program beneficiaries and at the same time, reduce the cost of the program overall, CMS has initiated a number of data submission and public reporting programs that critical access hospitals and their associated services participate in. As of this writing, participation by CAHs is voluntary, though strongly encouraged.

A new project launched in 2010 called the Medicare Beneficiary Quality Improvement Project (MBQIP) focuses on collecting performance data specifically from CAHs, presumably to guide future payments.

CART is the data collection software program developed by CMS for collection of clinical performance and patient satisfaction data. In Montana, Mountain Pacific Quality Health (the QIO) assists staff at CAHs to submit performance data using this system. Collected data can then be displayed for public viewing as aggregate, state and/or facility-specific performance. Facilities can access and print their performance reports on demand.

The current performance measure sets for which clinical data is collected from hospitals are:

♦ Acute Myocardial Infarction
♦ Heart Failure
♦ Pneumonia
♦ Surgical Care Improvement Project
♦ Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS)
♦ Outpatient/ED focused measures, sometimes called the “rural” measure set

You can view your hospital’s performance by visiting the CMS Hospital Compare website: www.hospitalcompare.hhs.gov

A similar program of data submission requirements and public reporting is in place for nursing homes. You can view your nursing home’s performance by visiting the CMS Nursing Home Compare website: http://www.medicare.gov/NHCompare
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The National Quality Agenda: Institute for Healthcare Improvement (IHI)

www.ihi.org

This website is a great resource for performance improvement projects, tools, literature and education. In addition to contributing to regulatory performance improvement measure development, IHI has been a national leader in supporting a non-punitive, patient-centered, performance improvement healthcare organization culture.

The 100,000 Lives Campaign Performance Measures (Jan 2005 – June 2006)

* Deploy rapid response teams
* Deliver reliable, evidence-based care for AMI
* Prevent adverse drug events
* Prevent central line infections
* Prevent surgical site infections
* Prevent ventilator-associated pneumonia

The 5 Million Lives Campaign Performance Measures (Dec 2006- Dec 2008)

* All of the 100,000 Lives interventions (see above)
* Prevent harm from high-alert medications
* Reduce surgical complications
* Prevent pressure ulcers
* Reduce MRSA infection
* Deliver reliable, evidence-based care for congestive heart failure
* Get Boards on Board

WIHI

Provided by IHI free of charge, these bi-weekly audio-conferences on a variety of topics enable rural staff to learn about and engage in cutting edge PI issues. For more information, visit:

http://www.ihi.org/IHI/Programs/AudioAndWebPrograms/WIHI.htm?player=wmp
The National Quality Agenda: National Patient Safety Goals

The Joint Commission initiated its National Patient Safety Goals program in 2002. The goals themselves are developed using reported sentinel events data, and seek to reduce the number of adverse patient events in healthcare facilities. Goals are updated annually. The goals for 2011 of Critical Access Hospitals include:

* Correct Patient identification: eliminate transfusion errors
* Improving Staff Communication: reporting critical test values
* Safe medication use: labeling, and reduce harm due to anticoagulant therapy
* Reduce the risk of healthcare-associated infections: hand hygiene, prevent MDRO’s, eliminate central line-associated blood stream infections; prevent surgical site infections
* Reconcile meds across the continuum of care (effective July 2, 2011)
* Introduction to the Universal Protocol for Preventing Wrong Site, Wrong Procedure, and Wrong Person Surgery™

For more information about the Joint Commission’s National Patient Safety Goals for CAHs, visit: [http://www.jointcommission.org/cah_2011_npsgs/](http://www.jointcommission.org/cah_2011_npsgs/)

For more information about the Joint Commission, visit: [http://www.jointcommission.org/](http://www.jointcommission.org/)

The National Quality Agenda: CDC’s National Healthcare Safety Network

In 2008, CDC broadened its infection surveillance and prevention data collection efforts to permit hospitals to voluntarily report in a non-punitive environment healthcare associated infections (HAIs). The purpose of the data collection is to evaluate national trends in HAIs and support facility-specific and national reduction of those adverse patient events.

Beginning in 2011, Mountain Pacific Quality Health will assist critical access hospitals to enroll in this program, submit data to NHSN and access their performance reports.

For more information, visit: [http://www.cdc.gov/nhsn/about.html](http://www.cdc.gov/nhsn/about.html)
CMS CAH Standards Addressed by the PIN

C 195 Agreement

Each CAH that is a member of a rural health network shall have an agreement with respect to credentialing and quality assurance with at least-

(1) One hospital that is a member of the network;
(2) One QIO or equivalent entity, OR...
(3) One other appropriate and qualified entity identified in the State rural health care plan  *(the PIN is designated by the State to function in this role)*

C 270-80 Patient Care Policies

- Services are furnished in accordance with appropriate written policies... consistent with law
- Developed with the advice of a group of professionals that includes at least one physician, one midlevel and one individual not a member of the CAH staff
- Include a description of services provided by the CAH and those contracted
- Show how the CAH would meet all of its emergency services requirements
- Include policies about medical management, including consultation, referral, maintenance of health care records, periodic evaluation
- Include policies for the storage, handling, dispensing and administration of drugs and biologicals
- Include procedures for reporting adverse drug reactions and errors in administration of drugs
- A system for identifying, reporting, investigating and controlling infections and communicable diseases of patients and personnel
- Procedures that ensure that the nutritional needs of inpatients are met
- Policies are reviewed at least annually by a group of professional personnel that includes at least one physician, one midlevel and one individual not a member of the CAH staff
CAH carries out or arranges for a periodic evaluation of its total program at least once a year that includes:

- utilization of services, including at least the number of patients served and the volume of services
- A representative sample of both active and closed records
- Evaluation, review and revision as needed of the health care policies
- A determination of whether the utilization of services is appropriate, established policies are followed, and any changes that are needed.

The CAH has an effective QA program to evaluate the quality and appropriateness of the diagnosis and treatment furnished... “effective” means it includes:

- Ongoing monitoring and data collection
- Problem prevention, identification and data analysis
- Identification of corrective action
- Implementation of corrective action
- Evaluation of corrective action
- Measures to improve quality on a continuous basis
C 339    Peer Review: Mid-levels

The quality and appropriateness of diagnosis and treatment provided by mid-levels is evaluated by a physician member of the CAH medical staff ("peer review").

A clarification issued by CMS in May 2005 stated:

- **For INPATIENT midlevel cases:**
  - 100% of the INPATIENT care provided by mid-levels must be reviewed
  - this includes physician assistants and advance practice nurses

- **For Outpatient midlevel cases:**
  - In Montana, nurse practitioners and other advance practice nurses are licensed to and allowed to perform their duties independently, but PA-Cs are required to be supervised and are licensed that way.
  - Therefore, unless the facility’s Medical Staff Bylaws require 100% review of all mid-level outpatient cases, the requirement is:
    - 100% of physician assistant outpatient cases must be reviewed by the supervising physician or delegated alternate.
    - 25% of Advance Practice Nurses cases must be reviewed, rather than 100%.

C 340    Peer Review: Physicians

The quality and appropriateness of diagnosis and treatment provided by physicians is evaluated by ("peer review"): 

- One hospital that is a member of the network, when applicable;
- One QIO or equivalent entity, OR
- One other appropriate and qualified entity identified in the State rural health care plan (note: the PIN is designated by the State to function in this role)
<table>
<thead>
<tr>
<th></th>
<th>Description</th>
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<tbody>
<tr>
<td>C341</td>
<td>CAH staff consider the findings and recommendations from the QIO and take corrective action if necessary</td>
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<tr>
<td>C342</td>
<td>Takes appropriate remedial action to address deficiencies found through the QA program</td>
</tr>
<tr>
<td>C 343</td>
<td>CAH documents the outcome of all remedial action</td>
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### C-330 Continued From page 11

annual reviews of service areas indicated that:

The facility failed to perform a comprehensive annual evaluation of its total program. (See C-331.)

The facility failed to ensure that all health care policies were reviewed. The policy review did not include pharmacy services. The policies that were reviewed included surgical services or surgical anesthesia services, however these services were not offered to patients according to the facility administrator. (See C-334.)

The facility failed to ensure a facility-wide (all departments, including contracted services) quality assurance (QA) program and failed to evaluate all services effecting patient care through the QA program that included dietary, pharmacy and radiology. (See C-336 and C-337.)

### C-331 ANNUAL PROGRAM EVALUATION

The CAH carries out or arranges for a periodic evaluation of its total program. The evaluation is done at least once a year.

This STANDARD is not met as evidenced by:

Based on record review and staff interview, the facility failed to ensure total program periodic evaluation. Findings include:

Review of both the medical staff and governing board bylaws and meeting minutes indicated appropriate annual evaluation of the majority of the hospital's programs. However, there was no evidence provided to the surveyor that indicated all of the facilities health care policies were evaluated, reviewed, and/or revised as part of an