

QUALITY IMPROVEMENT

“Hold yourself responsible for a higher standard than anybody expects of you. Never excuse yourself.”

-Henry Ward Beecher

Quality improvement (QI) is a vast subject, which includes many different approaches, each one with a different emphasis. Quality assurance is an older term that one still hears, but it is associated with limited methods, most notably with surveys and record-keeping that are implemented at long intervals (e.g., annual staff satisfaction survey). Quality improvement, especially *continuous quality improvement* (CQI), is the preferred term, implying the setting up of continuous feedback loops which yield information as events in the system are occurring.

Quality Improvement has been defined as an effort to assess and make better the level of performance of key processes and outcomes of an organization using a set of techniques to enhance organizational efficiency and effectiveness in achieving objectives.

Both the Ohio Department of Mental Health (ODMH) and the Ohio Department of Alcohol and Drug Addiction Services (ODADAS) have endorsed a practice of quality improvement for all of their certified programs and agencies. ODMH’s quality improvement-related program certification standards are located in OAC §5122-28-03, titled Performance Improvement Rule. ODADAS’ quality improvement-related program certification standards are located in OAC §3793:2-1-04, titled Quality Assurance and Improvement Rule. The concept of Quality Improvement is also important for Boards as they continuously design ways to enhance their own operational practices, which ultimately affect client service delivery.

Quality Improvement for Provider Agencies

As part of a system-wide approach to quality improvement, ODMH or ODADAS-certified providers of community mental health and alcohol and drug services are required to establish QI programs.

Listed below are key components of the ODADAS Quality Assurance and Improvement Certification Standards (OAC § 3793:2-1-04):

1. Each certified program should establish and implement a written QI Plan updated annually and approved by the governing authority.
2. Each program shall have a written Risk Management Plan for conducting risk management activities. Risk management means a planned approach for the purpose of safeguarding potential risks in terms of hazardous working conditions, fire and safety conditions, major and unusual incidents and financial risk.
3. All major unusual incidents shall be reported in writing to ODADAS and to the applicable ADAS Board or ADAMH Board within seventy-two hours of the reported incident or such other time as agreed upon between the parties. Each program shall have

written criteria for conducting reviews of major unusual incidents that include, but are not limited to, the following:

- A. Death or serious injury of a client, employee, contract staff member, volunteer or student intern when the person is on the program's premises, performing tasks for the program or participating in program activities.
 - B. Any allegation of physical, sexual or verbal abuse of a client.
 - C. Any allegation of staff neglect of a client.
4. Each program shall maintain documentation for the quality assurance, risk management, and quality improvement activities that it conducts.

The major elements of the ODMH Performance Improvement Certification Standards (OAC §5122-28-03) are:

1. Each agency must develop a process for planning, doing, checking and acting upon its performance.
2. Each agency must maintain documentation demonstrating utilization of the four performance improvement methodologies (designing a performance improvement process (planning), monitoring performance through data collection (doing), analyzing current performance (checking), and demonstration that data collected and analyzed pursuant to this rule are used to improve performance, practices and process (acting)).
3. Each agency must routinely (no less than annually and no more than semi-annually) submit reports (on forms prescribed by ODMH) to the Department regarding the status of its performance improvement process.

ODMH has a separate rule for incident notification (OAC §5122-26-13):

1. ODMH defines an incident as any event that poses a danger to the health and safety of clients and/or staff and visitors of the agency and is not consistent with routine care of persons served or routine operation of the agency.
2. The phrase "major unusual incident" has been replaced by a newer one, "reportable incident," which ODMH defines as "those that involve clients and shall include deaths, serious bodily injuries, alleged criminal acts, alleged abuse or neglect, any adverse reaction of a client to a life threatening degree due to an administered drug, medication errors likely to result in serious consequences to a client, and any life threatening situations."

ODMH does not require providers to submit copies of their performance improvement plans to Boards, nor incidents of seclusion and restraint unless they also meet one of the other criteria for reportable incidents. However, Boards are encouraged to solicit information from, and coordinate CQI activities with providers.

Quality Improvement for Board Operations

Boards can benefit from adopting a Continuous Quality Improvement Model for not only systemic improvements but for Board Operations as well. Continuous Quality Improvement rests on the theory that most things can be improved.

ADAS/ADAMH Board Requirements

ODADAS provides a detailed description of a Board's Quality Improvement program in its ODADAS Guidance Manual. Each ADAS/ADAMH Board must develop and implement an annual Quality Improvement (QI) Plan. This plan shall address:

1. Board's mission and goals.
2. Board's approach and structure of its QI process.
3. Operational procedures for the development, implementation, action planning and follow-up (i.e., evaluation of actions, of its QI process.)
4. The method to define and identify areas for improvement such as the incorporation of data generated by QI activities into the QI Plan.
5. The method to implement corrective action/improvements based on data and follow-up of improvements.
6. The mechanisms to involve client, consumer and provider input in the QI process, to include participation in the planning and evaluation of services and implementation of quality improvement activities, e.g., client satisfaction.
7. The mechanism to integrate providers' QI plans into the Board's plan.

The key focuses of the QI plan are to meet the needs of customers, both internal and external, and to provide a framework in which customers can give systematic feedback about the planning, development, implementation and evaluation of clinical care and other services. Other quality indicators include: satisfaction, grievances, waiting list management and independent peer review. In addition, QI is facilitated through the implementation of the ODADAS Protocols for Levels of Care and retrospective utilization review activities.

ODADAS requires all ADAS/ADAMH Boards to have a team approach to satisfaction that allows provider agencies, referral sources, clients and consumers to participate in the specifics of the satisfaction process.

Each ADAS/ADAMH Board shall conduct an annual independent peer review of treatment providers. The Board is responsible for submitting a copy of the report, prepared by the independent peer reviewer, on an annual basis through the Quality Improvement Plan. Boards are also required to provide an annual follow-up report of the Independent Peer Review to all treatment provider agencies.

Other requirements under ODADAS' Quality Improvement guidelines include the requirement that all ADAS/ADAMH Boards ensure that their provider agencies develop and implement a waiting list management mechanism. The Board is responsible for submitting a waiting list report to ODADAS on an annual basis. This report can either be included as part of the Community Plan or the Community Plan Update. Boards are required to provide an annual follow-up report on waiting list information to all provider agencies.

Client grievances also fall under Quality Improvement for ADAS/ADAMH Boards. Boards are required to establish a procedure for addressing client grievances, which are not resolved at the treatment provider/TASC program level. The Board is responsible for submitting an annual report on grievances to ODADAS. This report can either be included as part to the Community

Plan or the Community Plan Update. Boards are required to provide an annual follow-up report on grievances to all provider agencies.

ADAS/ADAMH/CMH Board Quality Improvement

Quality improvement also works outside of mandated requirements. Unlike ODADAS, ODMH does not provide guidelines as to what should be included for quality improvement at the Board level. All Boards can utilize the continuous quality improvement methodology outside of Department requirements as they look at ways for improving both the behavioral health system and their own internal operations.

Plan Do Check Act (PDCA)

A cornerstone of quality improvement is a methodology called “Plan-Do-Check-Act” (PDCA), sometimes called “Plan-Do-Study-Act” (PDSA). When implementing PDCA, one designs a data-gathering system (Plan), tries it out (Do), studies the results (Check), and see what needs to be changed to get better results—and, of course, more efficient data-gathering (Act). In that way, a circle of activity is performed, and the circle should be repeated again and again until the desired result is obtained. “Result” means that quality (in a system or sub-system) has been improved as a result of the PDCA activity.

The Plan-Do-Check-Act model can be implemented for any performance improvement activity. Although, often associated with requirements for providers, many Boards adopt this model in identifying improvements for systemic and operational changes.

Tools of Quality Improvement

There are many tools (methods) useful in CQI, nearly all of them software-amenable. Although a great deal of CQI work is qualitative only, more rigorous (and generally more meaningful) work is done using quantitative tools. These tools are used to monitor, control and improve process. Here are some of the most commonly used terms and tools used in CQI:

Significance: There are many statistical methods that determine whether or not the results of a project are statistically significant. T-tests (paired or unpaired) are very useful for comparing outcomes from two groups of consumers. These are easy to learn and can be quickly performed using many software products.

Balance sheets are useful for separating positive from negative items. In constructing a balance sheet, three columns are set up and using as many rows as there are options to consider. The two columns to the right are reserved for pros and cons. The options being considered should be related to a common goal. This technique is a simple way to organize brainstorming, and many modifications are possible.

Cause-and-effect diagrams are usually of the so-called fishbone variety, since the diagram resembles a fish. The “head” contains a description of the problem. The “bones” represent possible or definite causes, or things related to causes. The technique is very useful in figuring out “why is this happening,” and it will usually place multiple causes in perspective.

Check sheets are easy to construct and very useful to track how often an event occurs over a period of time. The main feature of check sheets is that events are usually recorded as they happen, which sets them apart from historical data sheets, such as histograms. Since they track events, without presuppositions, and in “real life” settings, they often reveal causes. Check sheets can track different kinds of data:

- a. Number of times something happens;
- b. How long it takes to get something done;
- c. Cost of a process over time;
- d. Frequency of occurrence;
- e. Effect(s) of something happening over time.

Criteria rating forms are popular because they are easily understood and seem to be based on common sense. Like most of the CQI tools, they are an aid to orderly thinking. Benjamin Franklin is credited with making liberal use of criteria rating forms, though he probably did not think of them as such. These may take the form of a simple table, with criteria for making your choice listed in the first column. Typically, this is a scale, such as: 5=Very good; 4=Good; 3=Fair; 2=Bad; 1=Very bad. The next few columns contain scores under each item being considered. Adding up the “scores” for each option may help a group identify the best choice(s).

The **flowchart** is probably the best tool to represent the stages of a complex process, and is a great training/teaching tool as well. Nearly anyone can set one up, but it is good to remember there are rules, which aid thinking. For example, a rectangle represents an activity, with a description of the activity inside the box; (2) a diamond (with the longest axis horizontal) represents a decision point, with “yes” and “no” exit arrows; a rounded rectangle is used less often, to mean a starting point or end point; and the document symbol is like a rectangle with its lower right corner rounded.

Force field analysis is a method for separating forces that hold back a project from forces that advance it. This can be represented by a simple table (two rows across). The top row lists restraining forces (e.g., not enough funding, lack of transportation, community resistance, etc.). The bottom row can list advancing forces (desired by consumers, availability of property for the project, support by the mayor, etc.).

Gantt charts can help a team plan a course of action. They show what the action goals are, who is responsible, and when they are to be completed. Gantt charts can take different forms, but the simplest can be set up in MS Word, WordPerfect, or even Excel.

Histograms are tools that are among the most common and useful in CQI work. They consist of plotting frequencies of something that happens. The bar graph is most often used. In ordinary histograms, the Y-axis always represents a number, whether the number of occurrences or a percentage. The X-axis usually represents time, but there are many variations. The axes can be reversed.

An **outlier** is any member of a group that stands out from the group. Outliers can usually be identified visually, as when one bar in a bar graph is considerably taller or longer than the others, although this is not always obvious.

Control charts are very important in quality improvement work. They usually involve establishing statistical limits above and below a compliance level (or “acceptable quality baseline”). This is done by analysis of the distribution of the relevant data. The mean, for example, can serve as the baseline. Then an upper control limit (UCL) and a lower control limit (LCL) are established, which “contain” events. The usual goal is to keep results between the UCL and LCL, at least in the beginning phase of implementing a system. If data points are persistently outside these limits, the system is out of control.

Survey design is extremely important but often neglected. A common assumption is that a survey can be constructed on the spur of the moment, distributed without pre-testing to consumers, and lead to significant results. Nothing could be further from the truth. However, the participation of consumers in the design of surveys to be administered to them is strongly encouraged. In fact, consumers should always be consulted in the pre-testing phase of survey design. Professionals can always adjust the format and design to meet the goal of a particular survey. Aids to good survey design are widely available, including the Internet and many popular guidebooks.

Pareto charts are another useful tool. These require some care to construct, but are often powerful in their ability to show primary causes of problems. Pareto charts are used to rank causes from most significant to least significant. They can be regarded as modified histograms. Their creator (Wilfred Pareto) formulated a “rule” based on typical applications that 80 percent of the trouble in a system can be caused by 20 percent of the members or items in a system. Although the “Pareto rule” is not strictly scientific, it oftentimes proves to be accurate in its conclusions.

Additional Considerations

Consumer Outcomes

Although not itself a quality improvement topic, the ODMH outcomes system is filled with many quality issues. Cultural sensitivity, professional competence, and assurance that as many consumers participate as possible, are all necessary to maintain a quality outcomes system. The Ohio outcomes system addresses quality of life, health and safety, and self-empowerment as well as the more obvious clinical functional scores. All these domains, including consumer satisfaction, are incorporated in the questions of the outcomes instruments. By September of 2005, it is expected that outcomes shall be used and reflected in the treatment plans of consumers. ODMH requires that every consumer who receives a named mental health service in Ohio must be given the opportunity to participate in the Ohio Outcomes System.

Best practices are central to services of good quality. Their features are:

1. Approaches to healing illness that are judged to be exemplary.
2. Developed or selected based on a systematic process;
3. Designed to produce successful outcomes within organizations; and/or
4. Substantiated through rigorous program evaluation and/or research.

The phrase *evidence-based best practice* is now common, and tied to #4 above. These methods are research-evaluated and are supported by professionals who agree on guidelines for their implementation. Examples of evidence-based best practices as supported by professional groups are: PACT, the New Hampshire-Dartmouth Model of Dual Recovery (SAMI), Multisystemic Therapy for Adolescents, and Patient Outcomes Review Team for recommendations for schizophrenia (PORT), cognitive behavioral therapy for persons with depression, and consumer and family psycho education/support groups. Formal consensus by a group of experts is exemplified in the Texas Medication Algorithm Project, the Ohio Medication Algorithm Project, and ODMH's Emerging Best Practices in Mental Health Recovery (1999).

The Ohio Department of Mental Health has placed essential items relating to quality improvement on its Web site. Its *Quality Matters* Newsletter is useful to keep in touch with what various agencies and Boards are doing as they pursue quality in their activities, and links to many other sources of valuable information as well.