1. NO AUDIO ON THIS SLIDE

2. In organizations and agencies, quality management tends to use two general approaches: quality assurance and quality improvement. Both integrate structure, process, and outcome measures.

3. Quality assurance is done on a retrospective basis and uses inspections. For example, a product is made and then inspected for defects. Using this method, primary care visits occur and then related medical records would be reviewed to assure standards are met. Quality assurance emphasizes identifying a special cause of variation, such as an employee who did not follow proper procedures and produces a defective product. It has a punitive component, because defects often result in a search for the problem employee. Finally, quality assurance has limited use of statistical thinking and is not oriented towards discovering how a defect can be prevented in the future.

4. In contrast, quality improvement focuses on system improvement and de-emphasizes the contributions of an individual, as well as individual blame for problems. It emphasizes cross-disciplinary teams, which is consistent with management Theory Z. Quality improvement also emphasizes statistical thinking and considers all sources of variation, such as defective materials or ineffective procedures. It takes a systems approach to improving quality. It is data driven decision-making. The goal is not to lay blame on one or more persons, but to discover how systems and outcomes can be improved through changes in input and processes.

5. Quality improvement can be used for different types of problems and processes. For example, it has been used to reduce laboratory turnaround times, reduce nursing medication errors, decrease mortality following open-heart surgery, and improve survival from out-of-hospital cardiac arrest.

6. Quality improvement is very customer focused, because the goal is to provide goods and services that meet the needs and expectations of patients and customers. To achieve this, employees must have ownership in the process of doing the work. As a consequence, employees need to be empowered and participants in the process. Quality cannot improve until everyone throughout the process takes ownership in what is being produced.

7. Quality improvement recognizes that poor quality results in visible and hidden costs.

8. Visible costs are transparent, such as customer complaints, billing errors, excess overtime, inaccurate or lost records, or other obvious system problems.

9. Hidden costs are not transparent. They include costs associated with higher employee turnover rates and cost increases in recruitment and training. Hidden costs are created from a bad reputation, especially by lack of customer loyalty and adverse word-of-mouth communications.

10. Edwards Deming did much to advance quality improvement. He was a statistician from the United States who used statistical methods to raise performance in post-World War II Japan. He identified fourteen points for quality improvement. The first two are creating consistency of purpose toward improvement and adopting this new philosophy. Thus, a commitment to quality must be integral to the mission, values and vision of an organization for to achieve success.

11. Following this commitment to quality, dependence on inspection to achieve quality is discontinued. Also, the practice of awarding business based on the price should be discontinued. Purchasing from the lowest bidder may result in purchasing lower quality inputs. The fifth point is to constantly improve the system of production and service with an emphasis on decreasing cost. It is possible to improve quality while at the same time decreasing costs, as efficiencies are made and waste is reduced.

12. Another Deming point is to institute training on-the-job. This recognizes the need for education to achieve mastery. Deming emphasizes the need for leadership and leadership throughout the organization and to drive out fear, such that employees can participate in decision-making and problem-solving. In some settings, employees know how quality could be improved, but are afraid to make suggestions to supervisors or management. Deming emphasizes breaking down barriers between departments, such that communication and collaboration can be improved. This is particularly important in healthcare.

13. These are Deming’s final points. They include eliminating slogans, as well as work standards.
Quotas can result in large quantities of mediocre products. Deming advocates for reducing barriers that prevent employees from providing workmanship, which can also occur with over emphasis on the quantity produced. Finally, Deming advocates for self-improvement and involving everyone in the transformation to a culture of quality.

14. Many models of quality improvement exist. This model has five general steps. First, a process must be identified for improvement. Second, a team is organized that is familiar with the process. The team should include employees who are actively involved in the process, and should exclude higher level managers who are unfamiliar with the process details. The next step is to clarify the current knowledge regarding the process, such as the steps in the process and how work is conducted. Then, causes of process variation are identified and understood. It is necessary to collect data and information and use statistical analysis. Finally, a process improvement strategy is selected and implemented, and re-measurement occurs to determine if it was effective in improving quality.

15. Many organizations are now using Six Sigma, which follows the same basic methods using a 7-step process, which has much greater emphasis on the use of statistics to eliminate errors.

16. Other methods include Root Cause Analysis, which emphasizes identifying and correcting the root cause of major problems, LEAN, which emphasizes eliminating waste, and PDSA, which is a useful tool for documenting a test of change. The PDSA cycle for testing a change occurs by developing a plan to test the change (Plan), carrying out the test (Do), observing and learning from the consequences (Study), and determining what modifications should be made to the test (Act).

17. One commonly used tool to analyze root causes is a cause-and-effect or fishbone diagram, which considers potential causes of deviation from the desired outcome. This helps in identifying different points where performance can be improved. For example, the failure to enroll in a cancer trial protocol includes issues of distrust, perceived risk, and cost. The diagram helps focus on where process change can have the greatest impact on improving the outcome.

18. Pareto diagrams are also used. They identify the frequency with which an event occurs by categories, such as clinical service. In this example where a hospital was addressing unplanned readmissions, the greatest gains could be achieved by focusing on surgery and medicine services, since they have the greatest number of unplanned readmissions. This type of analysis is used to identify areas that can have the greatest impact in improving an outcome.

19. Benchmarking is also used in quality improvement. It compares an organization’s performance with other organizations to improve existing processes. For example, if a hospital has a 5% mortality rate for particular surgery and identifies institutions with a 3% mortality rate, the processes of those with the lower rates would be analyzed to identify and replicate practices to achieve the lower rate. Benchmarking requires an understanding of internal conditions, procedures, practices, and how processes are managed. It is important to correctly choose benchmarking partners. For example, a cancer hospital would not want to compare outcomes with community hospitals, due to the major differences in the population served.

20. Other quality improvement tools include physician profiling, report cards or scorecards, and dashboards.

21. Physician profiling collect data to analyze physician practice patterns, utilization of services, and outcomes of care. The goals are to improve physician performance through feedback, and to decrease practice variation by increasing adherence to evidence based standards.

22. This is an example of a physician profile. The physician’s performance is compared with one’s peer group, as well as a national standard.

23. Similar to school report cards or golf scorecards, organizational report cards or scorecards are used to document prior period or past performance.

24. Report cards provide a means of communicating information about a provider’s quality. Managers often use them as a marketing tool since they emphasize quality of care. They can aid consumers in choosing high quality providers, and assist third party payers in negotiating contracts.

25. For example, HealthGrades at www.healthgrades.com provides report cards on hospitals by type of clinical service.

26. This is an example of HealthGrades’ ratings for cholecystectomy among Tampa area hospitals. In this case, the rating is based on major complications. Ratings for some other types of service
are based on mortality.

27. Dashboards are also used by health care organizations. They function similar to the indicator panel on an automobile that provides key performance metrics, such as speed and fuel level while the vehicle is in motion. An organizational dashboard is a tool that monitors and reports the ongoing, real-time performance of the critical processes that lead to organizational success.

28. Dashboard metrics can encompass all areas of performance, including clinical, financial, human resources, and satisfaction. Some examples are given for each of these areas.

29. Most healthcare organizations use profiling, report cards, and dashboards at the senior leadership level. The key issue in success is how leadership uses the measures and measurement sets to set priorities and achieve desired results.

30. Barriers and limitations to quality improvement exist, particularly if top management does not support it or uses it for cost control rather than quality improvement. To be effective, employees must support the process, as they are key to identifying and implementing process improvements. Success is limited if teams are formed that exclude representatives who are familiar with all major steps in the process. Quality improvement may be used as a panacea, such that any perceived problem is managed through quality improvement, which is costly for problems that managers can resolve directly. Managers need to be good managers and not merely conveners of quality improvement teams. Finally, quality improvement has been used to promote a predetermined set of solutions. This is done by forming a team and using statistics to advance an agenda with a predetermined solution.