

Introduction to Healthcare Quality

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MHA623
Healthcare Quality

Lecture 1



Intended Objectives

1. Recognize the different terms assigned to quality .
2. Explain the relationship between cost and quality.
3. Demonstrate an understanding of the varied dimensions of healthcare quality.
4. Recognize the principals of TQM in healthcare

WHAT IS QUALITY?

- In its broadest sense, quality is an attribute of a product or service.
- The perspective of the person evaluating the product or service influences her judgment of the attribute.

IOM - Definition of Quality

"Quality of care is the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge."

Institute of Medicine. Medicare: A Strategy for Quality Assurance. Vol. 1. (1990)

What is Reliability in Healthcare?

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➤ Definition:

- Reliability refers to the ability of a medical process, procedure, or service to consistently perform its intended function without failure, within the required time frame, and under normal conditions.

➤ Importance:

- Ensures patients receive consistent, high-quality care.
- Builds trust in healthcare systems and services.
- Reduces errors and enhances patient safety.

What is Reliability in Healthcare?

➤ Failure of Reliability:

- Reliability ends when a process, procedure, or service fails to perform as intended.

➤ Consequences:

- Compromised patient care and safety.
- Loss of trust in healthcare systems.
- Potential harm or negative outcomes for patients.

Examples

➤ **Reliable process:**

- A diagnostic test is reliable when it consistently provides accurate results under normal operating conditions.

➤ **Unreliable process:**

- A nurse administers the wrong dosage of a medication to a patient due to unclear or inconsistent dosage instructions in the electronic health record (EHR) system.

Quality related terms

1. Quality Control (QC)

- A management process where actual performance is measured against expected performance., and actions are taken on the difference.
- **Focus:**
 - ✓ Inspection.
 - ✓ Maintain the status quo.



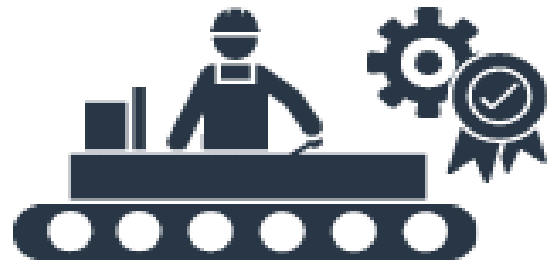
Quality related terms

2. Quality Assurance (QA)

- It is the process of assuring compliance with standards, requirements or specifications and implementing methods to achieve that.
- **Focus:**
 - ✓ Monitoring.
 - ✓ On process level.
 - ✓ Gives feedback to provider.



Quality Assurance VS Quality Control



Quality Assurance

Quality Assurance (QA) is the proactive approach of quality which focuses on **preventing the defects** at the process level.



Quality Control

Quality Control (QC) is the reactive approach of quality which works by **finding the defects** of the product itself.

Quality related terms

3. Quality Improvement (QI)

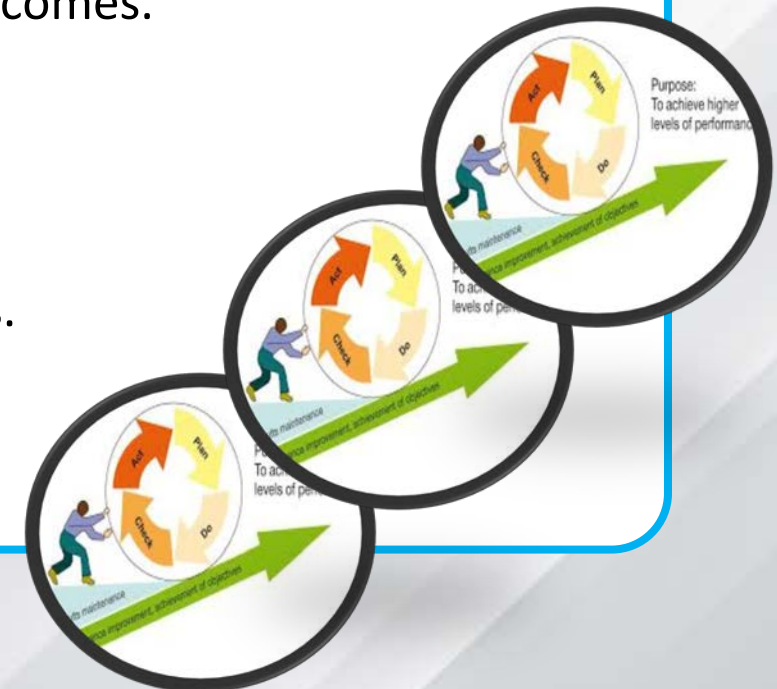
- Selectively identifies opportunities to achieve improvements in products/ services.
- **Characteristics:**
 - ✓ More comprehensive.
 - ✓ Broader-based approach.
 - ✓ Focuses on the whole system.



Quality related terms

4. Continuous Quality Improvement (CQI)

- Continuously improves every process in every part of an organization, with the intent of meeting and exceeding customer expectations and outcomes.
- **Characteristics:**
 - ✓ Cyclical process.
 - ✓ Continuously improve quality even in absence of problems.
 - ✓ Never ending.
 - ✓ Daily part of everyday functions.



What's TQM ?

- **Total:** Whole
- **Quality:** degree of excellence a product or service provides.
- **Management:** Act, art, or manner of handling, controlling, directing.
- **TQM** is the art managing the whole to achieve excellence.

What's TQM ?

- TQM is a philosophy.
- **It says that:** In order to do a better job, you have to involve the people doing the job and ask for their suggestions.
- **CQI is the process itself,** it is a plan putting TQM into action, it is responsible how the job will be done.

What's TQM ?

- **CQI (Continuous Quality Improvement)** is an organized approach that engages personnel in systematically planning and implementing ongoing improvements to healthcare systems. The goal is to deliver high-quality care that meets or surpasses patient expectations.

What's TQM ?

“In late 1980's, many health care organizations started to apply the concept of TQM, a concept that has proved its worth in industry.”

What's TQM ?



TQM does not occur overnight; there are no quick remedies. It takes a long time to build the appropriate emphasis and techniques into the culture.

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Overemphasis on short term results and profits must be set aside so long term planning and constancy of purpose will dominate.



COST–QUALITY Relationship

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- We expect to receive value when purchasing products or services.
- We become disappointed when we receive poor service at a restaurant.
- How you respond to disappointing situations depends on how you are affected by them.

COST-QUALITY Relationship

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- **Cost** and **quality** affect the **customer experience** in all industries. But in healthcare, these factors are harder for the average consumer to evaluate than in other types of business.

**Total cost
of quality**

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graph TD; A[Total cost of quality] --> B[Internal failure costs]; A --> C[External failure costs]; A --> D[Appraisal costs]; A --> E[Prevention costs]; B --- F[Costs of poor quality]; C --- F; D --- G[Costs of good quality]; E --- G;
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**Internal
failure costs**

**External
failure costs**

**Appraisal
costs**

**Prevention
costs**

Costs of poor quality

Costs of good quality

1. Internal failure costs

- Are incurred to remedy defects discovered before the product or service is delivered to the customer.
- These costs occur when the results of work fail to reach design quality standards and are detected before they are transferred to the customer.

1. Internal failure costs

➤ Examples:

- Costs associated with re-testing patients due to inaccurate lab results.
- Time and resources spent correcting medication errors before they reach the patient.
- Investigating and addressing near-miss incidents (e.g., almost administering the wrong drug).
- Delays in treatment due to miscommunication among healthcare teams.

2. External failure costs

- Are incurred to remedy defects discovered by customers.
- These costs occur when products or services that fail to reach design quality standards are not detected until after transfer to the customer.

2. External failure costs

➤ Examples:

- Legal fees and settlements resulting from medical malpractice lawsuits.
- Costs of readmissions due to complications or incomplete treatment.
- Loss of reputation and patient trust after a preventable adverse event.
- Additional treatments required to address harm caused by errors (e.g., infections from improper sterilization).

3. Prevention costs

- Are incurred to prevent or avoid quality problems. These costs are associated with the design, implementation, and maintenance of the quality management system.

3. Prevention costs

➤ Examples:

- Training healthcare staff on infection control protocols to prevent hospital-acquired infections.
- Implementing electronic health record (EHR) systems to reduce documentation errors.
- Conducting regular maintenance of medical equipment to avoid breakdowns.

4. Appraisal costs

- Are associated with measuring and monitoring activities related to quality.
- These costs are associated with the suppliers' and customers' evaluation of purchased materials, processes, products, and services to ensure that they conform to specifications.

4. Appraisal costs

➤ Examples:

- Conducting routine patient satisfaction surveys to assess service quality.
- Performing regular audits of medical records to ensure compliance with standards.
- Testing and calibrating diagnostic equipment to ensure accuracy.
- Hiring external reviewers to evaluate the quality of care provided.

Basic dimensions of Healthcare Quality (STEEEP)





SAFETY



TIMELINESS



EFFECTIVENESS



EFFICIENCY



EQUITY



PATIENT CENTEREDNESS

1. Safety

- **Avoid injuries to patients from the care that is intended to help them.**
 - In 2008, the **WHO** introduced the **Surgical Safety Checklist** to minimize surgical errors by ensuring critical steps are followed before, during, and after procedures.
 - It **prevents mistakes** like **wrong-site surgeries, retained instruments, or medication errors**. This tool has significantly improved patient safety and reduced complications.

2. Timeliness

- Reduce waits and sometimes harmful delays for both those who receive and those who give care.
 - An example of improving timeliness in healthcare is the implementation of Electronic Health Records (EHRs) and triage systems in emergency departments. **For instance**, a hospital in the U.S. introduced an EHR system that streamlined patient data access and prioritized cases based on severity.

3. Effectiveness

- **Provide services based on scientific knowledge to all who could benefit, and refraining from providing services to those not likely to benefit.**
 - example is the use of evidence-based guidelines for prescribing antibiotics. Doctors provide antibiotics to patients with bacterial infections, where they are proven effective, but avoid prescribing them for viral infections like the common cold, where they offer no benefit and can contribute to antibiotic resistance.

4. Efficiency

- **Avoid waste, including waste of equipment, supplies, ideas, and energy.**
 - A hospital implemented a digital inventory system to track medical supplies, reducing overstocking and expiration waste. By optimizing supply chain management, they saved costs and ensured timely availability of essential items, improving overall care quality.

5. Equity

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- **Provide care that doesn't vary in quality because of personal characteristics such as gender, ethnicity, geographic location, and socioeconomic status.**
 - A health system ensures equitable care by standardizing protocols and using tools like mobile clinics or telehealth to bridge gaps, ensuring consistent quality regardless of gender, ethnicity, location, or income.

6. Patient Centeredness

- **Provide care that is respectful of and responsive to individual patient preferences, needs, and values, and ensuring that patient values guide all clinical decisions.**
 - An elderly diabetic patient chooses diet and lifestyle changes over medication.
 - The healthcare team supports their decision, providing guidance and monitoring for safe, effective management.

Wrap Up

1. **Quality in Healthcare:** Defined by attributes like safety, timeliness, effectiveness, efficiency, equity, and patient-centeredness.
2. **Reliability:** Ensures consistent, high-quality care, reducing errors and building trust.
3. **Cost-Quality Relationship:** Balancing cost and quality is critical for patient satisfaction and system efficiency.
4. **TQM & CQI:** Total Quality Management (TQM) and Continuous Quality Improvement (CQI) are essential for long-term excellence in healthcare delivery.

Wrap Up

5. **Patient-Centered Care:** Prioritizes individual preferences, needs, and values, ensuring clinical decisions align with patient goals.
6. **STEEEP Framework:** Safety, Timeliness, Effectiveness, Efficiency, Equity, and Patient-Centeredness are the pillars of healthcare quality.
7. **Continuous Improvement:** Emphasizes the importance of ongoing efforts to enhance care quality, reduce costs, and improve patient outcomes.



Thank You