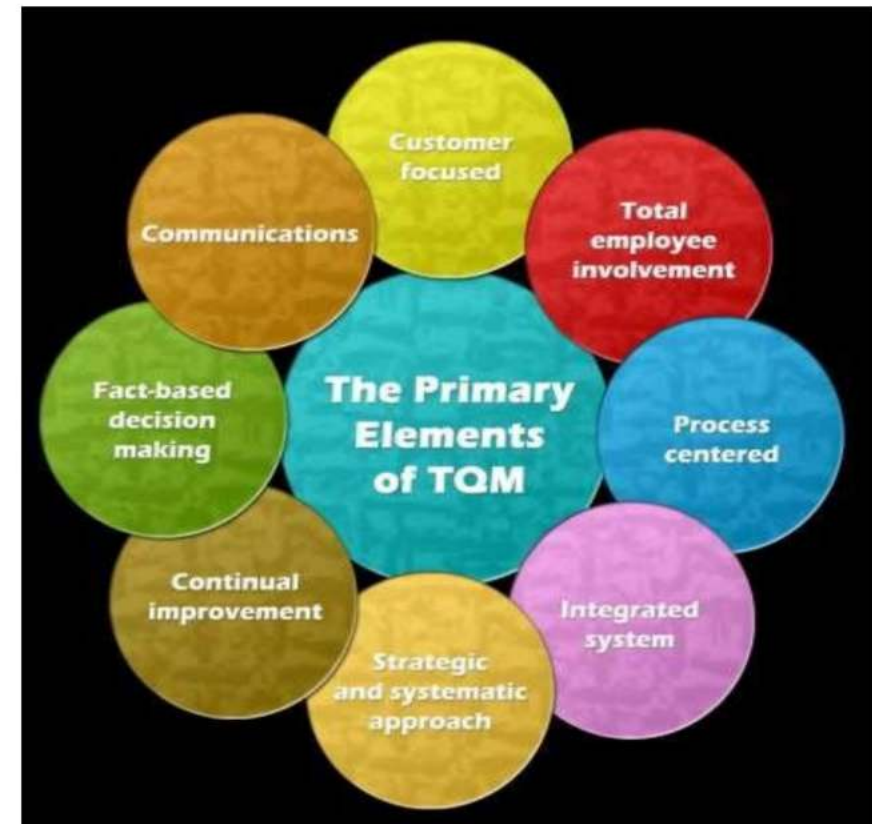




The **key principles** are:

- Management Commitment.
- Employee Empowerment.
- Fact Based Decision Making.
- Continuous Improvement.
- Customer Focus.
- Organizational Culture.
- Continuous learning.



The ISO 9000:2005 Quality Management Principles





International standards for organization(ISO)

Principle

Description

- | Principle | Description |
|--|--|
| <ul style="list-style-type: none"> Customer focus | <ul style="list-style-type: none"> Understand current and future customer needs & expectations |
| <ul style="list-style-type: none"> Leadership | <ul style="list-style-type: none"> Commitment and establish environment that help employees to become involved in achieving org. objectives |
| <ul style="list-style-type: none"> Involvement of people | <ul style="list-style-type: none"> at all levels of the organization are fully involved and empowered |
| <ul style="list-style-type: none"> Process approach | <ul style="list-style-type: none"> Processes must be managed by the leaders, and related resources provided |
| <ul style="list-style-type: none"> System approach to management | <ul style="list-style-type: none"> Systems management and systems thinking |
| <ul style="list-style-type: none"> Continuous improvement | <ul style="list-style-type: none"> A continuous focus on performance improvement |
| <ul style="list-style-type: none"> Factual approach to decision making | <ul style="list-style-type: none"> Analysis of data and information will lead to effective decision-making |
| <ul style="list-style-type: none"> Mutually beneficial supplier relationships | <ul style="list-style-type: none"> The organization and its suppliers are interdependent and a good relationship between them creates value for all |

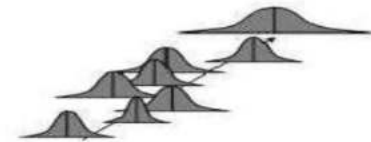
QUALITY MANAGEMENT PRINCIPLES

1. Productive work is accomplished through processes." Each person in the organization is a part of one or more processes.
2. Sound customer-supplier relationships are absolutely necessary for sound quality management."
3. "The main source of quality defects is problems in the process."



QUALITY MANAGEMENT PRINCIPLES

4. Poor quality is costly.
5. Understanding the variability of processes is a key to improving quality.
6. Quality control should focus on the most vital processes.
7. The modern approach to quality is thoroughly grounded in scientific and statistical thinking.



Process Variability





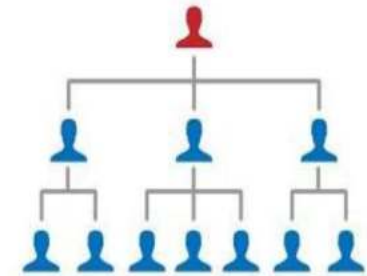
QUALITY MANAGEMENT PRINCIPLES

8. Total employee involvement is critical.

9. New organizational structures can help achieve quality improvement.

10. Quality management employs basic, closely interrelated activities:

- Quality planning, quality control [quality measurement], and quality improvement.



Three ways to enhance quality





Basic principle of total quality management

Productive work is accomplished through
Process

Source of quality **defects in system** not
individual performance

Understanding **the variability** of the
process

Ground on **scientific and** statistical
thinking

New **org. structure** can help achieve Q.
Improvement

Sound of customer necessary for sound
of quality

Poor quality is costly

Focus on the most vital process

Employee involvement (**Quality is
responsibility to all**)

Q. Management activities : Planning &
Improvement & Control

TQM philosophy promotes

- emphasis on quality, leadership being **responsive** rather than **directive**
- Decrease emphasis on inspection, focus **on systems** rather than individual.
 - **investment** in learning & education.
- long term **vision**
- Cautions use **minimal standards**.
- Ongoing **quality improvement**.

- Effort should be directed not to finding and fixing the problem in product through end point of production but at finding and fixing problem in work process (**strip down the process to find and eliminate the problem**)





Responsive Leadership

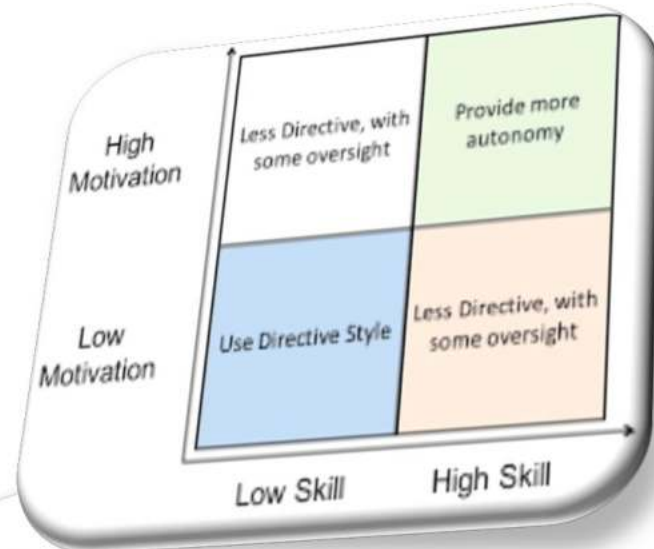
try, inspect, adapt

engraved in his behavior and thinking. fully aware of the threats of a business world in tremendous development,

encourages all employees to be part of this curious and explorational way of adapting to the future; and to shaping the future.



directions, objectives, standard and expectations to employees. most effective when a task is complex and employees are unskilled or inexperienced





TQM fosters a belief in the value

Customer

Needs , Expectations

Staff

Involvement

Management

Commitment , Empower staff

Team work

Ownership , Mult experts



Power given
to someone
to do
something

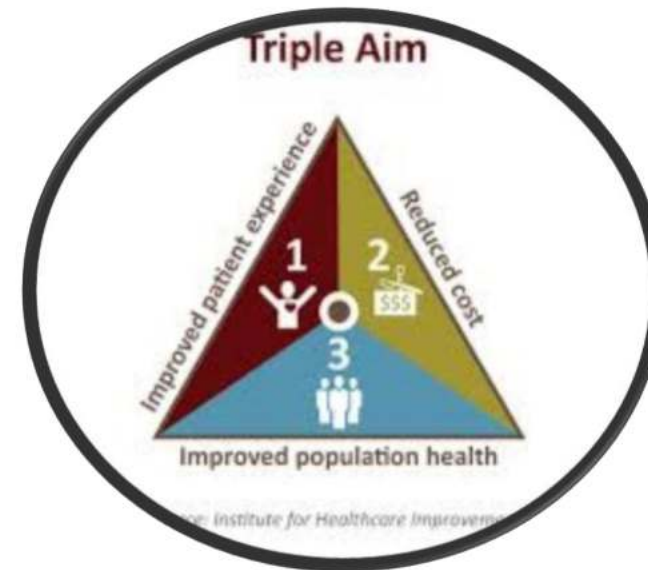
National quality strategy

The National Quality Strategy (**NQS**) was established in 2011 by the Agency for Healthcare Research & Quality (**AHRQ**), guided by the Triple Aim of the Institute for Healthcare Improvement (IHI).

IHI's Triple Aim:

1. Better care
2. Healthy people and communities
3. Affordable care

To achieve these aims there are 6 priorities which address the range of healthcare quality concerns.



- 6 priorities which address the range of healthcare quality concerns.

And focus on six priorities:



Making care safer by reducing harm caused in the delivery of care.



Ensuring that each person and family are ~~engaged~~ as partners in their care.



Promoting ~~effective communication~~ and coordination of care.



Promoting the most effective prevention and treatment practices for the leading causes of mortality, starting with cardiovascular disease.



Working with communities to promote wide use of best practices to enable healthy living.



Making quality care more affordable for individuals, families, employers, and governments by developing and spreading new health care delivery models

Table 4: National Quality Strategy Levers (adapted from Agency for Healthcare Research & Quality, 2011)

Lever	Description
Measurement and feedback	Measurement and performance feedback for plans, providers, and others within the organization
Public reporting	Use of comparative treatment results, costs, and patient experiences
Learning and technical assistance	Offer training, tools, guidance, and resources to foster a learning environment aimed at achieving quality improvement goals
Certification, accreditation, and regulation	Meet and maintain safety and quality standards
Consumer incentives and benefit designs	Provide healthy behavior resources for consumers to utilize to make informed decisions
Payment	Reward and incentivize those who provide care that is high quality and patient-centered
Health information technology	Utilize HIT to improve communication, transparency, and efficiency
Innovation and diffusion	Identify and employ innovative quality improvement efforts towards health care with rapid change for the organization and the community
Workplace development	Invest in the people of the organization with lifelong learning initiatives and support



To achieve the value

1. Offer better value customer experience with more choice of product. (transparency)
2. Offer website displaying healthcare information that is easy to read and understood.
3. Looking to the future especially interaction technology.

Responsibility of healthcare quality professional

- **understand, teach, and guide** the development and implementation of the Strategy and processes, with the effective **use of data and information**, to make wise **improvements** and effect positive change.
- understand the principles of both Total Quality Management and Continuous Quality Improvement.
- They must **articulate to all administrative and governing body leaders** how TQM philosophy, with the processes of **performance measurement, analysis, and improvement**; and the development of an **effective Healthcare Quality Strategy**, are necessary and compatible with the organization's financial health, and, making the Strategic Plan achievable.
- demonstrating the value of quality that is linked to **reduced risk**, reduced **costs**, and **better patient outcomes**

DONABEDIAN PARADIGM

It is **causal relationship** between structure, process and outcome.

Structure

is the arrangement of **parts** or **elements** of the Care system that facilitate care. It is the evidence of **organization's capacity** to provide care to patients. e.g. resources, staff number, staff qualifications, Ps & Ps, medical record information, settings of care, organizational chart, and accreditation status

process

refer to the **procedure** , **methods** , means , or sequences of **steps** of providing or delivering care and producing outcomes.

refer to **activities** that act on an "input" from "suppliers" to produce an output for a customer e.g

clinical process

care delivery process

administrative and management process



Types of process
Patient flow
Information flow
Material flow



HEALTH CARE MODEL: DONABEDIAN MODEL

ANATOMY →

Structure

Process

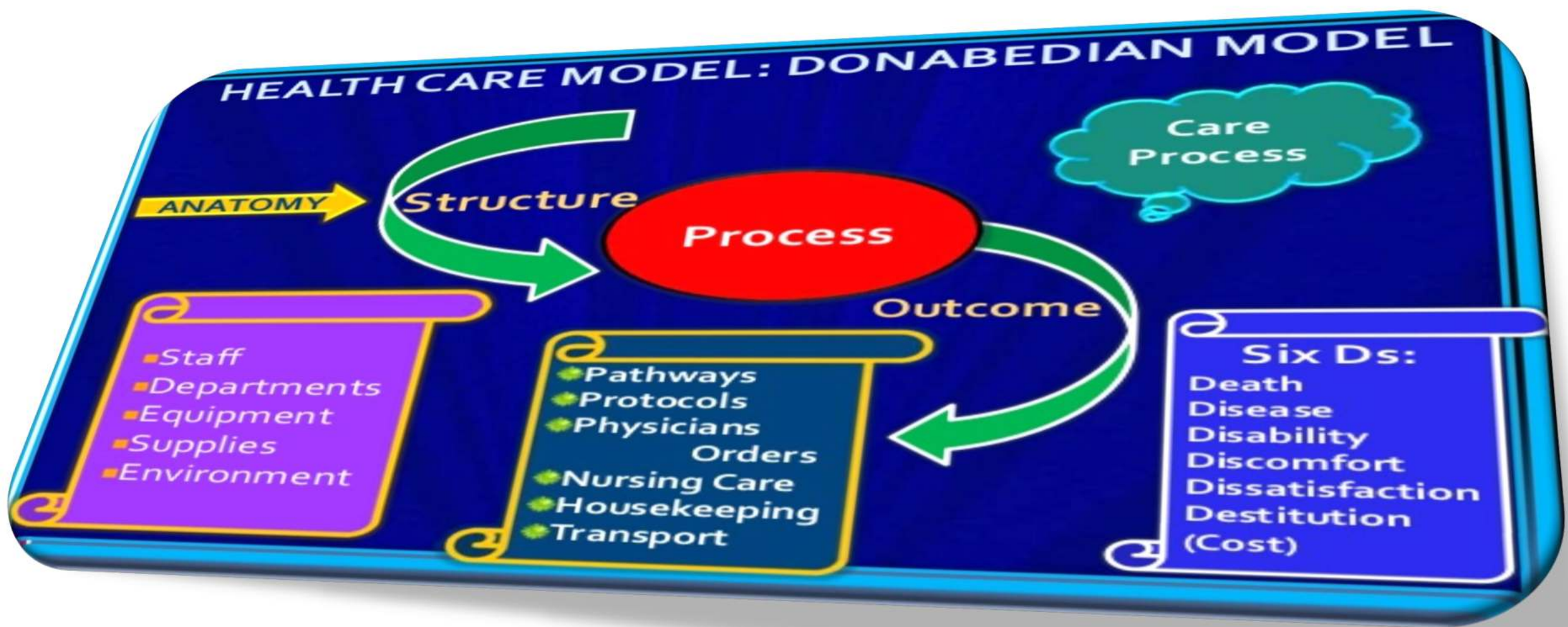
Outcome

Care Process

- Staff
- Departments
- Equipment
- Supplies
- Environment

- ◆ Pathways
- ◆ Protocols
- ◆ Physicians Orders
- ◆ Nursing Care
- ◆ Housekeeping
- ◆ Transport

- Six Ds:**
- Death
 - Disease
 - Disability
 - Discomfort
 - Dissatisfaction
 - Destitution (Cost)





“Process variation”

any change or **deviation** in form, condition, appearance, extent, etc., from the usual state or assumed standard either in the whole process or in a step of the process.

Special

(assignable & extrinsic) cause variation

- **Extrinsic** of the usual process.
- Related to **Identifiable factors** can be tracked to root cause.
- Refer to sentinel event, unique, one time occurrences, out of the ordinary circumstances, **outliers & tails**.
- More easy to identified & resolved.
- may be positive or negative.
- **Response**: **root cause analysis (RCA)**.

Common

(random & intrinsic) cause variation

- **Intrinsic** to the process itself.
- Related to **situations within process, chronic, noise & inliers**.
- More time consuming, more difficult.
- **Response**: **no focus, monitoring, process redesign & improvement (aim to reduce variation)**.

Process reliability

▪DEF:

probability that each step of the process will occur when, where, and how it needs to occur.

▪failure-free operation over time.

▪Reliability Rate (PR): the probability of success in HC (delivering desired outcome) by measuring compliance with performance measures (KPIs).

Example:

medication administration process consisted from 4 steps (((Step1 (99%) step 2 (95%) step 3 (90%) & step 4 (95%))))

PR= $0.99 \cdot 0.95 \cdot 0.90 \cdot 0.95 = 80\%$ (20% probability of failure)

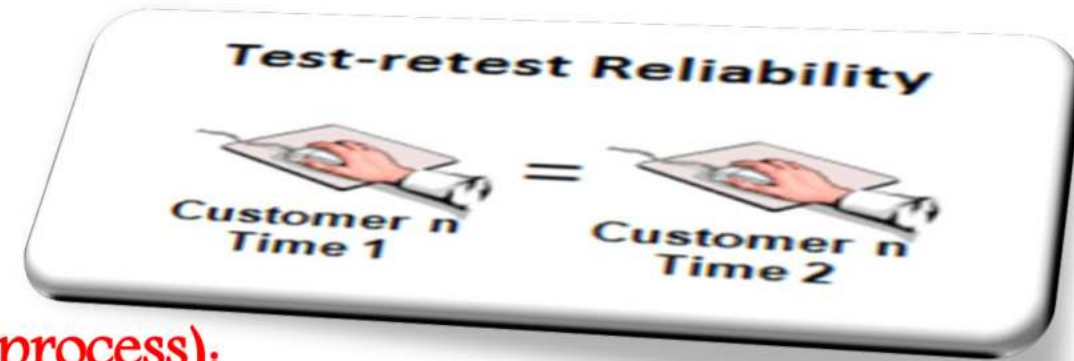


➤ How to improve process reliability?

1) Reduce the number of steps (lean):

Medication administration process in 3 steps

PR= $0.99 \cdot 0.95 \cdot 0.95 = 90\%$ (10% probability of failure)



2) Improve the reliability of individual steps (redesign process):

Compliance of staff in Medication administration process increase

PR= $0.99 \cdot 0.95 \cdot 0.95 \cdot 0.95 = 85\%$ (15% probability of failure)

▪ Process Breakthrough improvement:

is any sudden or significant solution to problems that leads to further advances, significant improvement or removal of barriers to progress.

outcome

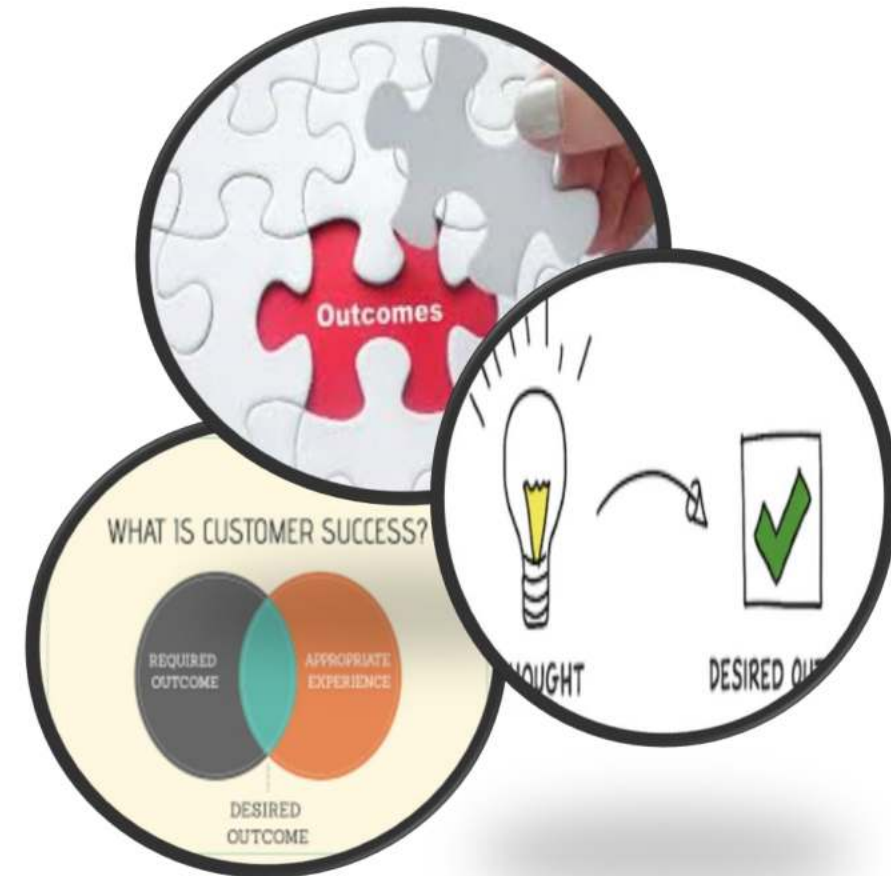
the **results** of care whether adverse or beneficial, or it is the **product** of the process.

Type of outcome:

Clinical outcome	Functional outcome	Perceived outcome
<ul style="list-style-type: none"> ▪ short term results of process ▪ Mortality & morbidity rates, infection rate 	<ul style="list-style-type: none"> ▪ long-term health status ▪ Activities of the daily living status (ADL) ▪ The patient progress to meet objectives 	<ul style="list-style-type: none"> ▪ Patient/family satisfaction and knowledge ▪ Peer accountability
Control blood sugar level	<ul style="list-style-type: none"> ▪ Patient back to normal activity, diet, sport & medications & follow up 	<ul style="list-style-type: none"> ▪ Patient satisfied with new life style

▪ Factors affect the degree to which healthcare services achieve desired outcome:

1. Disease process & severity.
2. Care process.
3. Patient compliance.
4. Random & unidentified variables.



Important Roles and Quality Functions

Quality Role

Important Functions of Role

Quality Management (QM)

- Organizational systems assessment
- Clinical performance **monitoring** (compliance to standards)
- Patient outcomes and care delivery process measurement, **analysis**, interpretation, and **reporting**
- **Patient safety** planning, program implementation, Measurement
- Organization **performance improvement** process

Patient Safety Management (PS)

- Patient safety **planning**, program implementation.
- process measurement, **analysis**, interpretation, and **reporting**.

Utilization Management (UM)

- Review medical **necessity** and **appropriateness**
- Resource **allocation**: timeliness, appropriateness, **efficiency**, and **cost**
- Role of Case Management/Discharge Planning in some organizations

Risk Management (RM)

- Clinical occurrences, Environmental and claims
- **Mitigation** of the effects of negative outcomes on both the organization and the patient



Quality Role

Important Functions of Role

Infection Control (IC)

**Practitioner credentialing,
privileging & competency appraisal**

**Continuing medical/clinical
education**

**Professionals performing any of the
first four components (QM, UM, RM,
and IC)**

- Surveillance & prevention
- Medical Staff at time of **appointment** and **reappointment**
- All independent practitioners, specific requirements & depending on the setting
- Orientation of quality management program, performance standards, policies, procedures, and documentation standards
- Data collection, summarization, and aggregation
- Information analysis, display, and presentation
- Information interpretation, sharing, and use
- Ongoing communications within the organization
- Effectiveness oversight

Wise improvement...

System thinking

System.

whole elements continually affect each other over time (hang together) and operate toward a common purpose.

Process.

flow or sequence of activities (steps) operate toward a common purpose. Change in step in a process does not necessarily change other steps.

