West Visayas State University
COLLEGE OF NURSING
La Paz, Iloilo City, Philippines

Quality Health Care & Nursing

Lecture Notes and Compilation

RYAN MICHAEL F. ODUKADO, MAN, MAEd, RN, RM

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Module

1

QUALITY CARE & MANAGEMENT

What is **QUALITY**?

- How good or bad something is.
- A characteristic or feature that someone or something has
- Something that can be noticed as a part of a person or thing.
- A high level of value or excellence (Merriam-Webster Dictionary)
- “Quality is an optimal balance between possibilities realized and a framework of norms and values” (Harteloh, 2003).

What is **QUALITY CARE**?

- Fitness to use by the customer (**Joseph Duran** in WHO, 2001).
- Conformance to requirements (**Philip Crosby**).
- It is the complete satisfaction of the needs of those who are in most need of health services, for the lowest organizational costs, within the given limit and guidelines of higher administrative bodies and those paying (Ovretveit in Ritonja, 1998)
- This refers to the degree to which health care increases likelihood of desired health outcomes, and is consistent with current professional knowledge (Lohr, Institute of Medicine, 1990).
- It takes into account three (3) factors:
 - a) the variability of the achievement of quality each time care is rendered;
 - b) health care cannot guarantee the attainment of outcomes that clinicians and patients expects;
 - c) scientific evidence and professional standards are crucial in defining care.

Quality of Care Dynamics: Dimensions and Cross-Dimensional Issues

- High-quality health care is safe, effective, efficient, appropriate, accessible and patient-centered.
- To achieve high-quality care, provider organizations must address the following critical issues:
 - a) individual and organizational competence;
 - b) continuity of care;
 - c) information management;
 - d) the role of evidence-based medicine and accreditation.
- The end goal and ultimate recipient of any effort towards quality of health care is the **patient**.

19TH CENTURY QUALITY OF HEALTH CARE THINKING

- The original concept of quality health care can be traced back to the mid-19th century in England (WHO 2001).
- In 1842, **Dr. Edwin Chadwick**, a public health activist and pioneer, reported on unsanitary conditions in communities and the lack of public health professionals to provide quality service. He recommended the creation of guidelines for the training of public health workers.
- At about the same time, in the United States, **Dr. Lemuel Shattuk** published a similar report on sanitary conditions in Massachusetts.
- A little over a decade later, in 1854, **Florence Nightingale**, then serving as a nurse in the Crimean War, introduced the idea of quality care in army hospitals and posited that adequate nursing care to wounded soldiers would decrease the

mortality rate among them. *This was the first time that the relationship between quality of care and positive outcomes was established (WHO 2001).* She published a book on the matter, *Notes on Matters Affecting the Health, Efficiency, and Hospital Administration of the British Army, Founded Chiefly on the Experience of the Late War (1858).*

- In 1999, the Joint Commission on Accreditation of Healthcare Organizations (U.S.) published excerpts from this book and another Nightingale work, *Notes on Hospitals (1859)*, as *Florence Nightingale: Measuring Hospital Care Outcomes.*

Why is **QUALITY OF CARE** important?

Jonas and Rosenberg (1986) have identified four broad categories which explain the need for quality of care:

- Hippocratic oath principle of *primum non nocere* ("First do no harm");
- The social and humanitarian motivation to use resources for the good of those in need;
- Professionalism;
- Survival.

In the Philippines, the following conditions point to a similar impetus for this pursuit of quality:

1. **Tougher Competition**

- * Health care providers that are committed to the pursuit of continuous improvement, innovation and customer satisfaction are the ones which survive the competition for a greater market share of consumers and purchasers of care.
- * Hospitals that have loyal patients, supportive stockholders or local government boards and enthusiastic staff are the ones with better prospects of long-term viability.

2. **Frequent Medical Errors**

- * Harrowing tales of patients given wrong medications or subjected to wrong operations erode public trust in the health professions.
- * While physicians, nurses and other health professionals are trained to be highly proficient under stress, they are not immune from committing errors.
- * Organizations should provide opportunities for professionals to learn from medical errors and take system-wide steps to prevent them.
- * In 1998, the ***Institute of Medicine's Quality of Health Care*** in America Committee recommended that safety systems be created inside health care organizations through the implementation of safe practices at the delivery level.
- * A culture of continuous improvement with strong leadership and interdisciplinary training is critical in implementing safety programs (Institute of Medicine 2000).

- * Since then, different organizations led by the health departments of the United States, Australia, the United Kingdom, and New Zealand, as well as other private organizations like the **JCAHO** and the **Institute for Health Care Improvement**, have developed mechanisms to monitor and report medication errors, device errors, and other sentinel events.
- * Studying Medical Errors:
 - **Charles Bosk**
 - Forgive and Remember: Managing Medical Failure (1979; 2003)
 - Study of surgical errors
 - Four Categorizes Medical Errors
 - a. **Technical** – mistakes in performance of medical care; forgivable if reported to supervising physicians but shouldn't be repeated; rapid revelation of errors allows for prompt corrective measures to minimize complications induced; inevitable in trainees; natural consequence of inexperience; examples: incorrectly tied sutures that leads to wound dehiscence, a slip of a scalpel, pneumothorax because of an attempted subclavian catheter placement;
 - b. **Judgmental** – mistakes made in decisions about the course of treatment; consist of acting or not acting at the right moment; operating when one shouldn't or not operating when one should.
 - c. **Normative** – are more often made by subordinates and involve breaches in informing superordinates of all unfolding events, as well as interpersonal difficulties with patients and nurses; “no surprises” rule.
 - d. **Quasi-normative** – what is considered standard procedure by one attending or in one institution is considered “wrong” in another.
 - Focusing “social accounting system”, surgeons practice to account for errors, Bosk suggests how safety recommendations are much easier to make than implement.
 - Successful error reduction attempts should focus on how personnel define errors, understand their causes and think how they could be remedied.
 - **Virginia Sharpe** and **Allan Faden**
 - Medical Harm: Historical, Conceptual and Ethical Dimensions of Iatrogenic Illness (1998)
 - Highlight the “do-no-harm” dictum as central to the practice of the medical profession. They reveal that 70% of

iatrogenic complications in the United States could have been prevented.

3. Rising Costs, Limited Health Expenditures

- * Health care has become increasingly dependent on new and expensive technologies.
- * Patients and providers alike equate high tech care with good care.
- * Health insurance can encourage patients and providers alike to use high tech care simply because it has been paid for.
- * Fear of malpractice suits compels physicians into defensive practice by ordering multiple diagnostic tests.
- * On the other hand, simply spending more money for health has been repeatedly demonstrated not to increase good health outcomes (Donabedian 1992). This has been proven in the United States (World Development Report 1993).
- * Ensuring value for money requires optimal and efficient use of effective health interventions for the appropriate indications.
- * Quantifying the cost of quality illustrates why focusing on quality is important.
- * One has to take into account Crosby's statement that the price of quality can be measured in terms of what it will cost the company should things be done wrong in the first place (like cost of scrap, rework, engineering changes, purchase order changes, consumer services, software correction). Should the cost of quality reach 2.5 percent of income, it must be seen as a call for improvement (Crosby 1979).

4. Rising Demands, Limited Health Resources

- * A health-conscious post-baby boom generation has produced a rising demand for health care. However, there are limited resources to meet rising demand.
- * This has spawned the need for equitable access, especially for those who are denied health care--even if they are the ones who need it the most--either because they do not know about it or do not have money to purchase it.
- * Equitable access also means involving and empowering consumers in making decisions regarding their own health.
- * Ensuring equitable access is critical to economic growth because sick populations can never achieve full economic productivity; in such a case, the state is forced to ration health care resources to those who really need them.

5. Concern with Variations in Health Care Outcomes and Costs

- * Medical decision-making is influenced by previous experience, current knowledge, patient expectations and other biases.
- * Unjustified variations in care lead to unwanted variations in processes and outcomes of care. This in turn leads to unnecessary costs.

- * Using valid scientific evidence to plan and implement care will prove useless unless organizations make their professionals behave more rationally through a system of rewards and sanctions.
- * This requires routine training, monitoring and partnering with health care team members so that clinical practice guidelines are seen as tools for improving care and are thus internalized and followed.

WHERE QUALITY OF HEALTH CARE STARTS

Quality health care, whether delivery is seen at the patient's end or from the provider organization's perspective, starts with two principal actions:

1. **Decision-making** – selection of the most appropriate health intervention.
 - * This is determined by the provider's (whether this be the professional or the hospital) level of knowledge, skill, experience, and the kind and amount of additional information available.
2. **Performance action** – effective, efficient and timely application of the selected intervention.
 - * This influenced by the adequacy of the processes used in delivering the intervention.
 - * Other important influences in both actions include patient's preferences, peer practice patterns, societal values, professional and legal sanctions as well as economic rewards.

INTERNAL AND EXTERNAL CUSTOMERS

1. Internal Customers

a) Staff and Employees

- * The people who run the hospital are not just its most important resource. They are the hospital. This is true particularly to patients.
- * Hospitals and clinics are only as good as the staff who directly take care of them.
- * Hospitals and clinics owe their doctors, nurses and other personnel reasonable compensation for their work, an environment conducive to efficient performance of their roles, and fulfillment of their professional and social needs.

b) Funders

- * All hospitals and clinics owe their funders fiscal responsibility.
- * Private organizations must earn money for their owners and/or stockholders.
- * Government hospitals must stay within their budgets even as they try to generate their own income to augment limited government subsidies.
- * Devolved hospitals must, in addition, serve the socio-political needs of the local governments that support them as a return of their investment.

- * Partnering with local government officials and the local health boards increases devolved hospitals' chances of competing for revenue allocations.
- * Competitiveness is critical to survival regardless of hospital ownership.

2. **External Customers**

a) **Patients**

b) **Payors of Health Care**

- * External agencies that pay hospitals and clinics for providing care to its insured members expect good value for their money.
- * PhilHealth, as a third party payor, funds hospitals that provide health care to PhilHealth insured members.
- * In return, hospitals must maintain their accreditation and abide by its warranties.

c) **Contractors**

- * Individuals or external agencies that agree to provide services or goods to hospitals and clinics expect to be bound by fair contracts and be paid promptly.
- * These contractors include housekeeping and security agencies, laboratory equipment wholesalers and drug companies.

DIMENSIONS OF QUALITY HEALTH CARE

- Most clusters of quality indicators were and often continue to be comprised of the 5Ds—*death, disease, disability, discomfort, and dissatisfaction*—rather than more positive components of quality.
- The work of the American Academy of Nursing Expert Panel on Quality Health focused on the following *positive indicators of high-quality care that are sensitive to nursing input*:
 - * achievement of appropriate self-care
 - * demonstration of health-promoting behaviors
 - * health-related quality of life
 - * perception of being well cared for, and
 - * symptom management to criterion.
- The most recent IOM work to identify the components of quality care for the 21st century is centered on the conceptual components of quality rather than the measured indicators: quality care is safe, effective, patient centered, timely, efficient, and equitable. Thus ***safety is the foundation upon which all other aspects of quality care are built.***

Aim	Description
1. Safe care	Avoiding injuries to patients
2. Effective care	Providing care based on scientific knowledge
3. Patient-centered care	Providing respectful and responsive care that ensures that patient values guide clinical decisions
4. Timely care	Reducing waits for both recipients and providers of care
5. Efficient care	Avoiding waste
6. Equitable care	Ensuring that the quality of care does not vary because of characteristics such as gender, ethnicity, socioeconomic status, or geographic location.

IOM's Six Aims for Improving Health Care Quality

1. Safety

- * Covers safety issues in phenomena like adverse events, complications and sentinel events as major objective of any health service provider should be safety of patients.
- * Harm from care, whether by omission of commission, as well as from the environment in which it is carried out, must be avoided.
- * Risk in care delivery process should be minimized.
- * Safety of staff and visitors to the health care organization must also be ensured.

2. Effectiveness

- * Treatment receive will produce measurable benefits.
- * Related to the extent to which treatment, intervention or service achieves desired outcomes.

3. Appropriateness

- * Develop measures to ensure appropriateness of key medical interventions, including compliance with selected clinical pathways.
- * It is about using evidence to do the right thing to the right patient in a timely fashion.
- * Interventions for the treatment of a particular condition should be selected based on the likelihood of a desired outcome.
- * Utilization reviews can act as a surrogate in assessing appropriateness.

4. Consumer participation

- * Patients have a fundamental right to be involved in health care decisions and delivery.

- * Develop mechanisms for gathering member's input and assessing their satisfaction level with service providers.
- * These mechanisms will provide patients opportunities to participate in health service planning, delivery, monitoring, and evaluation.

5. **Accessibility**

- * Supports access to health services on the basis of patient need, irrespective of geography, payment group (indigent, individually paying, etc), ethnicity, age or gender.

6. **Efficiency**

- * Ensure cost-efficiency through the implementation of case payment, select contracting and monitoring of compliance with clinical pathways.
- * Measures minimize inappropriate resource inputs and allocate resources to services which provided the greatest benefit.

Assessment focus points of PhilHealth's new Quality Assurance framework

CROSS-DIMENSIONAL ISSUES

1. **Competence**

Three levels of competence to be addressed:

a) **Organization Competence**

- * Facility's ability to assess its capacity to perform particular functions or procedures, or to supply a particular service.
- * Tested by the PhilHealth accreditation process.

b) ***Multidisciplinary Care Team Competence***

- * The team's ability to deliver optimum outcomes for patients.
- * As health services are characterized by multiple boundaries and barriers among various disciplines, quality health care delivery requires a team performance.
- * Encourage a multidisciplinary team approach to health care delivery through clinical pathways and accreditation standards.

c) ***Individual Competence***

- * The individual health care provider's skills, knowledge and attitude.
- * While there is currently no system which guarantees individual competence, the best available evidence suggests that an appropriate mix of quality improvement tools related to producing individual competence (selection and recruitment of appropriate staff, credentialing, peer review, skills assessment, clinical supervision, re-certification, and continuing education) should be employed.
- * No one tool is a guarantee, but when used in combination with others can improve levels of competence.

2. **Information Management**

- * Improving accuracy, appropriateness, completeness and analysis of health care data if judgments about clinical quality are to be made.
- * Health service providers should be encouraged to prioritize the development of information systems to promote and support appropriate use of data for health care quality improvement.
- * Members will need to be informed about the use and limits of such data in making health care decisions.
- * Data collection for purposes of accountability and even for evaluation entails costs.

3. **Continuity of Care**

- * Refers to the extent to which an individual episode of care is coordinated and integrated into overall care provision.
- * Is achieved through admission and discharge planning, communication and coordination among health care professionals, and linkages between hospital and community care providers.
- * Health promotion and preventive programs are also important in minimizing the demand on curative and palliative services.
- * Improved delivery of health care can reduce the average length of stay in acute care facilities and increase utilization of community-based and primary care services.
- * Effective care planning allows appropriate linkages with community-based resources.
- * Properly coordinated care processes provide opportunities to make drugs more accessible to marginalized patients.

4. **Evidence-based Medicine, Clinical Practice Guidelines and Clinical Pathways**

- * Emphasizes the use of evidence-based medicine in making decisions relevant to care provision.
- * **Evidenced-based Medicine**
 - “Conscientious, explicit and judicious use of current best evidence in making decisions about the care of individual patients” (Tan-Torres, 2001).
 - Attempts to attain care improvement and savings in health financing through the elimination of unnecessary diagnosis and treatment (World Bank Institute and World Bank, 2000).
- * Concrete applications of evidence-based medicine include the development and routine use of clinical practice guidelines and clinical pathways.
- * **Clinical Practice Guideline**
 - It is a statement systematically developed to aid practitioner and patient in making appropriate health care decisions for specific clinical circumstances (Institute of Medicine, 1990).
- * **Clinical Pathway**
 - It is a document that *describes the usual sequential way of providing multidisciplinary clinical care* for a particular type of patient, and allows for annotation of deviations from the norm aimed at continuous evaluation and improvement.
- * Impact on Clinical Economics (the use of cost evaluations to compare different interventions in clinical care) of Use of Evidence-based Medicine and Clinical Epidemiology (Tan-Torres, 2001):
 - Increasing the availability and appreciation for good quality information;
 - Formulating clinically relevant research questions;
 - Reviewing and synthesizing data systematically through meta-analyses;
 - Simplifying reporting of clinical outcomes with resource implications;
 - Improving the collection of cost-data thereby improving
 - the cost component of economic evaluations of health care
 - services;
 - Considering sample size in cost-effectiveness studies thus improving validity;
 - Integrating outcomes, costs and preferences with the use of decision analytic techniques further assisting physicians and patients make appropriate decisions regarding care.

5. Education and Training

- * To successfully implement this framework, organization shall carry out a well-planned education program for all stakeholders and set priorities for the development of clinical practice guidelines and other quality improvement activities.

6. Accreditation

- * Assesses an organization's compliance with set standards.
- * Shift from the traditional accountability orientation to one of continuous improvement
- * Accreditation shall no longer exclusively zero in on a provider organization's compliance with standards but shall also evaluate the organization's commitment to provide quality care and service.
- * While accreditation in itself cannot guarantee quality, it does provide useful information on the structure and processes required to achieve outcomes of adequate quality.

What is **PATIENT SAFETY**?

- It is "the prevention of harm to patients" (Aspden, Institute of Medicine, 2004).
- It is the cornerstone of high-quality health care.
- Emphasis is placed on the system of care delivery that:
 - prevents errors;
 - learns from the errors that do occur; and
 - is built on a culture of safety that involves health care professionals, organizations, and patients.
- The glossary at the Agency for Healthcare Research and Quality (AHRQ) Patient Safety Network Web site expands upon the definition of prevention of harm: "freedom from accidental or preventable injuries produced by medical care."

Patient Safety Practices

- Defined as "those that reduce the risk of adverse events related to exposure to medical care across a range of diagnoses or conditions" (AHRQ).
- Practices considered to have sufficient evidence to include in the category of patient safety practices are as follows:
 - Appropriate use of prophylaxis to prevent venous thromboembolism in patients at risk
 - Use of perioperative beta-blockers in appropriate patients to prevent perioperative morbidity and mortality
 - Use of maximum sterile barriers while placing central intravenous catheters to prevent infections
 - Appropriate use of antibiotic prophylaxis in surgical patients to prevent postoperative infections
 - Asking that patients recall and restate what they have been told during the informed-consent process to verify their understanding
 - Continuous aspiration of subglottic secretions to prevent ventilator-associated pneumonia
 - Use of pressure-relieving bedding materials to prevent pressure ulcers
 - Use of real-time ultrasound guidance during central line insertion to prevent complications

- Patient self-management for warfarin (Coumadin®) to achieve appropriate outpatient anticoagulation and prevent complications
- Appropriate provision of nutrition, with a particular emphasis on early enteral nutrition in critically ill and surgical patients, to prevent complications
- Use of antibiotic-impregnated central venous catheters to prevent catheter-related infections
- Many patient safety practices, such as use of simulators, bar coding, computerized physician order entry, and crew resource management, have been considered as possible strategies to avoid patient safety errors and improve health care processes; research has been exploring these areas, but their remains innumerable opportunities for further research.

Harm

- Defined as the impact and severity of a process of care failure: “temporary or permanent impairment of physical or psychological body functions or structure” (National Quality Forum Taxonomy of Patient Safety).
- The origins of the patient safety problem are classified in terms of:
 - type (error);
 - communication (failures between patient or patient proxy and practitioners, practitioner and nonmedical staff, or among practitioners);
 - patient management (improper delegation, failure in tracking, wrong referral, or wrong use of resources); and
 - clinical performance (before, during, and after intervention).
- The types of errors and harm are further classified regarding domain, or where they occurred across the spectrum of health care providers and settings. The root causes of harm are identified in the following terms:
 - **Latent failure** - removed from the practitioner and involving decisions that affect the organizational policies, procedures, allocation of resources; exogenous or environmental
 - **Active failure** - direct contact with the patient; endogenous
 - **Organizational system failure** - indirect failures involving management, organizational culture, protocols/processes, transfer of knowledge, and external factors
 - **Technical failure** - indirect failure of facilities or external resources
- Finally, a small component of the taxonomy is devoted to prevention or mitigation activities. These mitigation activities can be:
 - **universal** (implemented throughout the organization or health care settings);
 - **selective** (within certain high-risk areas); or
 - **indicated** (specific to a clinical or organizational process that has failed or has high potential to fail).

Nurses at the “Sharp End” of Patient Care

The work environment in which nurses provide care to patients can determine the quality and safety of patient care. As the largest health care workforce, nurses apply their knowledge, skills, and experience to care for the various and changing needs of patients. A large part of the demands of patient care is centered on the work of nurses. When care falls short of standards, whether because of *resource allocation* (e.g., workforce shortages and lack of needed medical equipment) or *lack of appropriate policies and standards*, nurses shoulder much of the responsibility. This reflects the continued misunderstanding of the greater effects of the numerous, complex health care systems and the work environment factors. Understanding the complexity of the work environment and engaging in strategies to improve its effects is paramount to higher-quality, safer care. High-reliability organizations that have *cultures of safety* and *capitalize on evidence-based practice* offer favorable working conditions to nurses and are dedicated to improving the safety and quality of care. Emphasis on the need to improve health care systems to enable nurses to not be at the “sharp end” so that they can provide the right care and ensure that patients will benefit from safe, quality care.

Human Error

- Defined as a failure of a planned action or a sequence of mental or physical actions to be completed as intended, or the use of a wrong plan to achieve an outcome (Reason, 1990).
- Do not all result to injury or harm.
- By definition, errors are a cognitive phenomenon because errors reflect human action that is a cognitive activity.

Near Misses, or “Good Catches,”

- Defined as events, situations, or incidents that could have caused adverse consequences and harmed a patient, but did not.
- Factors involved in near misses have the potential to be factors (e.g., root causes) involved in errors if changes are not made to disrupt or even remove their potential for producing errors.

Adverse Events

- Defined as injuries that result from medical management rather than the underlying disease.

Sentinel Events

- Unexpected events causing serious physical or psychological harm or injury and even death (Joint Commission).
- Signal the need for an immediate response, analysis to identify all factors contributing to the error, and reporting to the appropriate individuals and organizations to guide system improvements.

System Thinking

- This is a discipline that allows us to see the whole system and the relationships of the parts rather than just the isolated parts. High-quality care is more likely in systems where relationships and interrelationships are considered important.

Reason, (1990) described errors as the product of either;

1. **Active factors** – Individual factors; sharp end; (i.e., those that result primarily from systems factors, producing immediate events and involve operators (e.g., clinicians) of complex systems); or
2. **Latent factors**
 - System factors; blunt end; (i.e., factors that are inherent in the system).
 - Latent factors (e.g., heavy workload, structure of organizations, the work environment) are embedded in and imposed by systems and can fester over time, waiting for the right circumstances to summate individual latent factors and affect clinicians and care processes, triggering what is then considered an active error (e.g., an adverse drug event).
 - Leadership and staff within organizations essentially inherit and can create new latent factors through scheduling, inadequate training, and outdated equipment.
 - Latent factors or conditions are present throughout health care and are inevitable in organizations. These factors and conditions can have more of an effect in some areas of an organization than others because resources can be “randomly” distributed, creating inequities in quality and safety.
 - The number of hazards and risks can be reduced by targeting their root causes.
 - In doing so, the path between active failures when the error occurred would be traced to the latent defects in the organization, indicating *leadership, processes, and culture*. Then, if *organizational factors* (e.g., latent factors) become what they should be, few active causes of accidents will come about.
 - Organizational factors have been considered the “blunt end” and represent the majority of errors; clinicians are considered the “sharp end.”

Stages in the Development and Investigation of an Organizational Accident

When errors occur, the “deficiencies” of health care providers (e.g., insufficient training and inadequate experience) and opportunities to circumvent “rules” are manifested as mistakes, violations, and incompetence. **Violations** are deviations from safe operating procedures, standards, and rules, which can be routine and necessary or involve risk of harm.

Human Factors

- This is an established science that uses many disciplines (such as anatomy, physiology, physics and biomechanics) to understand how people perform under different circumstances.
- It is the study of all the factors that make it easier to do the work in the right way.
- It is the study of the interrelationship between humans, the tools and equipment they use in the workplace, and the environment in which they work.

Human Performance and Problem-Solving abilities are categorized as:

1. **Skill based**

- (i.e., patterns of thoughts and actions that are governed by previously stored patterns of preprogrammed instructions and those performed unconsciously)

- Skill-based errors are considered “slips,” which are defined as unconscious aberrations influenced by stored patterns of preprogrammed instructions in a normally routine activity. Distractions and interruptions can precede skill-based errors, specifically diverting attention and causing forgetfulness.
- Human susceptibility to stress and fatigue; emotions; and human cognitive abilities, attention span, and perceptions can influence problem-solving abilities.

2. **Rule based**

- (i.e., solutions to familiar problems that are governed by rules and preconditions); and
- Breaking the rules to work around obstacles is considered a rule-based error because it can lead to dangerous situations and may increase one’s predilection toward engaging in other unsafe actions.
- Work-arounds are defined as “work patterns an individual or a group of individuals create to accomplish a crucial work goal within a system of dysfunctional work processes that prohibits the accomplishment of that goal or makes it difficult”.

3. **Knowledge based** (i.e., used when new situations are encountered and require conscious analytic processing based on stored knowledge).

- Rule-based and knowledge-based errors are caused by errors in conscious thought and are considered “mistakes.”

Human Factors Theory

How Errors and Incidents Occur

Healthcare professionals are human beings, and like all human beings are fallible. In our personal and working lives we all make mistakes in the things we do, or forget to do, but the impact of these is often non-existent, minor or merely creates inconvenience. However, in healthcare there is always the underlying chance that the consequences could be catastrophic. It is this awareness that often prevents such incidents as we purposefully heighten our attention and vigilance when we encounter situations or tasks we perceive to be risky.

One human factors model that is increasingly well known in healthcare is the *Swiss Cheese Model* of organizational accidents (Reason 1990). The Swiss Cheese Model hypothesizes that in any system there are many levels of defense. Examples of levels of defense would be checking of drugs before administration, a preoperative checklist or marking a surgical site before an operation. Each of these levels of defense has little ‘holes’ in it which are caused by poor design, senior management decision-making, procedures, lack of training, limited resources etc. These holes are known as ‘latent conditions’.

If latent conditions become aligned over successive levels of defense they create a window of opportunity for a patient safety incident to occur. Latent conditions also increase the likelihood that healthcare professionals will make ‘active errors.’ That is

to say, errors that occur whilst delivering patient care. When a combination of latent conditions and active errors causes all levels of defenses to be breached a patient safety incident occurs. This is depicted by the arrow breaching all levels of defense the image below.

When such incidents occur it is uncommon for any single action or 'failure' to be wholly responsible. It is far more likely that a series of seemingly minor events all happen consecutively and/or concurrently so on that one day, at that one time, all the 'holes' line up and a serious event results. On investigation it becomes clear that multiple failings occurred and the outcome appears inevitable, but for those working in the system it can be shocking as they have often worked with these same environmental conditions and small errors or slips occurring regularly without harm ever occurring as a result.

It is very rare for staff in healthcare to go to work with the intention of causing harm or failing to do the right thing. Therefore we have to ask why there are many incidents where some of the latent conditions are caused by staff not doing the right thing, even when they know what the right thing is. Many processes and policies in healthcare are complex or seem to create difficulties for busy staff thus creating the temptation to take shortcuts or 'workarounds'.

Source: Patient Safety First's 'How to Guide' for Implementing Human Factors in Healthcare

Health Care Error

- It is a preventable adverse effect of care, whether or not it is evident or harmful to the patient.
- Errors have been, in part, attributed to:
 1. Human Factors
 - * Variations in healthcare provider training & experience, fatigue, depression and burnout.
 - * Diverse patients, unfamiliar settings, time pressures.
 - * Failure to acknowledge the prevalence and seriousness of medical errors.
 2. Medical complexity
 - * Complicated technologies, powerful drugs.
 - * Intensive care, prolonged hospital stay.
 - * System failures
 - * Poor communication, unclear lines of authority of physicians, nurses, and other care providers.
 - * Complications increase as patient to nurse staffing ratio increases.[33]
 - * Disconnected reporting systems within a hospital: fragmented systems in which numerous hand-offs of patients results in lack of coordination and errors.
 - * Drug names that look alike or sound alike.
 - * The impression that action is being taken by other groups within the institution.
 - * Reliance on automated systems to prevent error.
 - * Inadequate systems to share information about errors hamper analysis of contributory causes and improvement strategies.
 - * Cost-cutting measures by hospitals in response to reimbursement cutbacks.
 - * Environment and design factors. In emergencies, patient care may be rendered in areas poorly suited for safe monitoring. The American Institute of Architects has identified concerns for the safe design and construction of health care facilities.
 - * Infrastructure failure. According to the WHO, 50% of medical equipment in developing countries is only partly usable due to lack of skilled operators or parts. As a result, diagnostic procedures or treatments cannot be performed, leading to substandard treatment.

The Joint Commission's Annual Report on Quality and Safety 2007 found that **inadequate communication** between healthcare providers, or between providers and the patient and family members, was the root cause of over half the serious adverse events in accredited hospitals] Other leading causes included inadequate assessment of the patient's condition, and poor leadership or training.

Common Misconceptions About Adverse Events Are:

- **"Bad apples' or incompetent health care providers are a common cause."** Many of the errors are normal human slips or lapses, and not the result of poor judgment or recklessness.
- **"High risk procedures or medical specialties are responsible for most avoidable adverse events".** Although some mistakes, such as in surgery, are easier to notice, errors occur in all levels of care. Even though complex procedures entail more risk, adverse outcomes are not usually due to error, but to the severity of the condition being treated. However, USP has reported that medication errors during the course of a surgical procedure are three times more likely to cause harm to a patient than those occurring in other types of hospital care.
- **"If a patient experiences an adverse event during the process of care, an error has occurred".** Most medical care entails some level of risk, and there can be complications or side effects, even unforeseen ones, from the underlying condition or from the treatment itself.

What Is It Going To Take To Improve the Safety and Quality of Health Care?

Changes in health care work environments are needed to realize quality and safety improvements. Because errors, particularly adverse events, are caused by the cumulative effects of smaller errors within organizational structures and processes of care, focusing on the systemic approach of change focuses on those factors in the chain of events leading to errors and adverse events. From a **systems approach**, avoidable errors are targeted through key strategies:

1. The Right Work Environment

- * The nursing **"practice environment"** is defined by organizational characteristics that can either facilitate or constrain professional nursing practice.
- * Changes to the nurses' work environment need to focus on enabling and supporting nurses to provide high-quality and safe care.

2. Patient-Centered Care

- * Patient-centered care is considered to be interrelated with both quality and safety.
- * The role of patients as part of the "team" can influence the quality of care they receive and their outcomes.

3. Teamwork and Collaboration

- * In that patient safety is inextricably linked with communication and teamwork, there is a significant need to improve teamwork and communication.
- * Teamwork and collaboration has been emphasized by the Joint Commission. The Joint Commission has found *communication failures* to be the primary root cause of more than 60 percent of sentinel events reported to the Joint Commission.
- * Ineffective communication or problems with communication can lead to misunderstandings, loss of information, and the wrong information.

4. **Evidence-Based Practice**

- * Evidence should be used in clinical decision-making whenever possible.

5. **A Culture of Safety**

- * The IOM encouraged the creation of cultures of safety within all health care organizations.
- * **Safety culture**
 - Defined as “the product of the individual and group values, attitudes, competencies and patterns of behavior that determine the commitment to, and the style and proficiency of, an organization’s health and safety.

An Overview of TO ERR IS HUMAN: Re-emphasizing the Message of Patient Safety

- On November 29, 1999, the Institute of Medicine (IOM) released a report called *To Err is Human: Building a Safer Health System*.
- The committee’s approach was to emphasize that *“error” that resulted in patient harm was not a property of health care professionals’ competence, good intentions, or hard work*. Rather, the safety of care—defined as “freedom from accidental injury” is a property of a system of care, whether a hospital, primary care clinic, nursing home, retail pharmacy, or home care, in which specific attention is given to ensuring that well-designed processes of care prevent, recognize, and quickly recover from errors so that patients are not harmed.
- The message in *To Err is Human* was that *preventing death and injury from medical errors requires dramatic, system-wide changes*.
- Among three important strategies **preventing**, **recognizing**, and **mitigating** harm from error—the first strategy (recognizing and implementing the first strategy (recognizing and implementing actions to prevent error) has the greatest potential effect, just as in preventive public health efforts.
- Leape (1994) greatly enhanced our understanding of errors by distinguishing between two types of cognitive tasks that may result in errors in medicine.
 1. The first type of task occurs when people engage in well-known, oft-repeated processes, such as driving to work or making a pot of coffee. Errors may occur while performing these tasks because of interruptions, fatigue, time pressure, anger, distraction, anxiety, fear, or boredom.
 2. By contrast, tasks that require problem solving are done more slowly and sequentially, are perceived as more difficult, and require conscious attention. Examples include making a differential diagnosis and readying several types of surgical equipment made by different manufacturers. Errors here are due to misinterpretation of the problem that must be solved and lack of knowledge.

Basic Concepts in Patient Safety

Opportunities to improve safety have been drawn from numerous disciplines such as engineering, psychology, and occupational health. The IOM report brought

together what had been learned in these fields and then applied the opportunities to health care, as described in the nine categories that follow.

1. User-Centered Design

- * Understanding how to reduce errors depends on framing likely sources of error and pairing them with effective ways to reduce them.
- * The term “user-centered design” builds on human strengths and avoids human weaknesses in processes and technologies.
- * The first strategy of user-centered design is to make things visible—including the conceptual model of the process—so that the user can determine what actions are possible at any moment, for example, how to return to an earlier step, how to change settings, and what is likely to happen if a step in a process is skipped.
- * Another principle is to incorporate affordances, natural mappings, and constraints into health care.

2. Avoid Reliance on Memory

- * The next strategy is to standardize and simplify the structure of tasks to minimize the demand on working memory, planning, or problem-solving, including the following two elements:
 - *Standardize Process and Equipment.* Standardization reduces reliance on memory and allows newcomers who are unfamiliar with a given process or device to do the process or use a device safely.
 - *Simplify Key Processes.* Simplifying key processes can minimize problem-solving and greatly reduce the likelihood of error. Simplifying includes reducing the number of steps or handoffs that are needed.

3. Attend to Work Safety

- * Conditions of work are likely to affect patient safety. Factors that contribute to worker safety in all industries studied include work hours, workloads, staffing ratios, sources of distraction, and shift changes (which affect one’s circadian rhythm). Systematic evidence about the relative importance of various factors is growing with particular emphasis on nurse staffing.

4. Avoid Reliance on Vigilance

- * Individuals cannot remain vigilant for long periods of time. Approaches for reducing the need for vigilance include providing checklists and requiring their use at regular intervals, limiting long shifts, rotating staff, and employing equipment that automates some functions.

5. Train Concepts for Teams

- * People work together throughout health care in multidisciplinary teams, whether in a practice; for a clinical condition; or in operating rooms, emergency departments, or ICUs. In an effective interdisciplinary team, members come to trust one another’s judgments and expertise and attend to one another’s safety concerns. Team training in labor and

delivery and hospital rapid response teams are examples. The IOM committee believed that whenever it is possible, training programs and hospitals should establish interdisciplinary team training.

6. Involve Patients in Their Care

- * Whenever possible, patients and their family members or other caregivers should be invited to become part of the care process. Clinicians must obtain accurate information about each patient's medications and allergies and make certain this information is readily available at the patient's bedside. In addition, safety improves when patients and their families know their condition, treatments (including medications), and technologies that are used in their care.
- * At the time of discharge, patients should receive a list of their medications, doses, dosing schedule, precautions about interactions, possible side effects, and any activities that should be avoided, such as driving.
- * Patients also need clear written information about the next steps after discharge, such as follow-up visits to monitor their progress and whom to contact if problems or questions arise.
- * Family caregivers deserve special attention in terms of their ability to provide safe care, manage devices and medication, and to safely respond to patient needs. Yet they may, themselves, be affected by physical, health, and emotional challenges; lack of rest or respite; and other responsibilities (including work, finances, and other family members).

7. Anticipate the Unexpected

- * The likelihood of error increases with reorganization, mergers, and other organization-wide changes that result in new patterns and processes of care. Some technologies, such as computerized physician order entry systems (CPOE), are engineered specifically to prevent error. Despite the best intentions of designers, however, all technology introduces new errors, even when its sole purpose is to prevent errors. Indeed, future failures cannot be forestalled by simply adding another layer of defense against failure.
- * Health care professionals should expect any new technology to introduce new sources of error and should adopt the custom of automating cautiously, always alert to the possibility of unintended harm, and should test these technologies with users and modify as needed before widespread implementation.

8. Design for Recovery

- * The next strategy is to assume that errors will occur and to design and plan for recovery by duplicating critical functions and by making it easy to reverse operations and hard to carry out nonreversible ones. If an error occurs, examples of strategies to mitigate injury are keeping antidotes for high-risk drugs up to date and easily accessible and having standardized, well-rehearsed procedures in place for responding quickly

to adverse events. Another strategy is to use simulation training, where learners practice tasks, processes, and rescues in lifelike circumstances using models or virtual reality.

9. Improve Access to Accurate, Timely Information

- * The final strategy for user-centered design is to improve access to information. Information for decision-making (e.g., patient history, medications, and current therapeutic strategies) should be available at the point of patient care..

Principles for the Design of Safe Systems

To address threats to quality and safety by internal drivers, five principles for the design of safe systems are articulated in *To Err Is Human*, each of which has direct relevance to nursing practice.

1. The commitment of senior level managers and leaders of health care institutions is essential to moving a quality and safety agenda forward in care settings.
2. Human limits in care processes need to be explicitly identified and strategies put in place to minimize the likelihood that these limitations are expressed in the work environment.
3. Effective team functioning, promoted and fostered by the institution, is an essential component of health care systems that are quality and patient safety driven.
4. The redesign of systems for safe care involves anticipating the unexpected and adopting proactive approaches to ensuring safe care.
5. Creating a learning environment addresses the extremely complex work of changing organizational and academic cultures so that error is viewed as an opportunity to learn.

CASE STUDY

An Extended Stay

Ross Hilliard, MD,
IHI Open School Northeast Regional Chapter Leader

Learning Objectives:

1. At the end of this activity, you will be able to:
2. Explain how system failures can lead to patient harm.
3. Describe how lack of communication between providers and hospital departments can lead to patient harm
4. Discuss how to debrief with colleagues after an adverse event.

Description: A 64-year-old man with a number of health issues comes to the hospital because he is having trouble breathing. The care team helps resolve the issue, but forgets a standard treatment that causes unnecessary harm to the patient. A subsequent medication error makes the situation worse, leading to a stay that is much longer than anticipated.

Mr. Stanley Londborg is a 64-year-old man with a long-standing history of a seizure disorder. He also has hypertension (high blood pressure) and chronic obstructive pulmonary disease (COPD). He is no stranger to the hospital because of his health issues. At home, he takes a number of medications, including three for his COPD and three — levetiracetam, lamotrigine, and valproate sodium — to help control his seizures.

Mr. Londborg came to the emergency department (ED) last week because he was wheezing and having trouble breathing. The physician in the ED conducted a physical examination that yielded signs of an acute worsening of his COPD, which is known as COPD exacerbation. (In many cases, COPD exacerbation is the result of a relatively mild respiratory tract infection, but could be due to something more serious, such as pneumonia.)

The physician in the ED ordered a chest x-ray, which did not show any signs of pneumonia. He admitted Mr. Londborg to the hospital for treatment of acute COPD exacerbation, resulting from a relatively mild respiratory tract infection. Before leaving the ED, Mr. Londborg also underwent routine blood work, which showed an elevation in his creatinine, a sign that his kidneys were being forced to work harder due to his infection.

On the medical floor, the care team treated Mr. Londborg with oral steroids and inhaled bronchodilators (standard medical therapy for his condition), which resulted in a gradual improvement in his respiratory symptoms. Nurses also gave him IV fluids for the issue with his kidneys, which slowly resolved.

Mr. Londborg was steadily improving, so it seemed this visit to the hospital would be one of his shorter ones.

But on his third morning in the hospital, Mr. Londborg complained to the intern (a first-year resident) on the care team about acute pain in his left leg. This symptom, potentially indicating deep venous thrombosis (a blood clot in his leg commonly known as DVT), prompted the team to order an ultrasound of Mr. Londborg's lower extremities. (A primary concern with DVT is that blood clots in the legs may dislodge and travel to the lungs, causing a pulmonary embolism, which could be deadly.)

The resident on the care team (who oversees the intern) then checked Mr. Londborg's medication orders and was surprised to see that the admitting doctor had not ordered prophylaxis for DVT (i.e., blood thinners, such as heparin or enoxaparin). The resident was surprised because patients admitted to the hospital typically receive this treatment to prevent blood clots from forming while they lie in their hospital beds. Further, nothing about Mr. Londborg's medical record suggested he shouldn't have received this treatment as an important precautionary measure.

Let's pause to consider and discuss a couple questions about the case before we continue...

Discussion Questions:

1) The patient did not receive standard treatment to prevent the formation of a DVT. What are some possible reasons why this error occurred?

2) Can you suggest system process improvements that might reduce the likelihood of similar errors in the future?

Now let's continue with the story ...

The ultrasound, unfortunately, confirmed the presence of a blood clot in Mr. Londborg's left calf. Due to his impaired kidney function, treatment for the blood clot required him to remain in the hospital on IV medication.

Mr. Londborg's stay was going to be longer than expected.

10 PM on his eighth day in the hospital, a member of the environmental services (also known as housekeeping) staff found Mr. Londborg on the floor of his room. She immediately alerted the nurses on the ward. The nurses noted seizure activity and called the overnight medical team to Mr. Londborg's bedside. The team responded quickly and gave him intravenous medication that stopped his seizure.

Because no one witnessed his fall and seizure, Mr. Londborg underwent an emergent CT scan of his head to check for any sign of bleeding. After his mental status improved (it is common for patients to be confused for a time after a seizure), he complained of pain in his left shoulder and elbow, but x-rays of these joints showed no evidence of a traumatic fracture from his fall.

After ensuring that Mr. Londborg was stable, the overnight care team reviewed the chart and the medication history to try to determine the cause of Mr. Londborg's sudden seizure. They found that one of his seizure medications, levetiracetam, had not been given earlier in the day when it should have been. There was a notation in the medication administration record from the daytime nurse indicating that the ordered dose was not available in the automatic medication dispensing system on the floor earlier in the day.

Further discussions the following day with the daily care team of doctors and nurses revealed that the nurses didn't notify the physicians or the pharmacy that the essential medication was not administered. The medication system didn't include an automatic alert, either.

Fortunately, the overnight physicians restarted Mr. Londborg on his medication, and he suffered no apparent permanent harm. Mr. Londborg was discharged after 10 days in the hospital. Most hospitalizations for COPD are far shorter. In fact, many last only a couple days.

Discussion Questions:

1) Unfortunately, Mr. Londborg suffered a seizure, a complication that could likely have been avoided if he had received all of the ordered anti-seizure medications. Identify at least two specific errors that contributed to this mistake.

2) Based on the types of errors you just identified, can you identify systems issues/failures that affected Mr. Londborg's hospitalization?

3) Identify at least one thing that went well during Mr. Londborg's visit to the hospital.

4) Pretend you are the nurse manager on the ward where this adverse event occurred. (In most hospitals, the nurse manager is responsible for daily operations on a given floor or "unit," including the nurses and others who work there.) How would you run a meeting to debrief team members in the days after Mr. Londborg's seizure?

Module

2

PATIENT SAFETY

What is **STANDARD**?

- Norm
- A general agreement of how things should be (Wandelt, 1970).
- Are used to assess a health care organization's performance in service provision.
- Focus is on what the organization actually does, not its capability.
- Delineate the best possible condition that should exist in the organization for it to attain quality performance.
- Set maximum achievable performance expectations for activities that affect the quality of care, like compliance with patient pathways which emphasize the interface between management units.
- Since standards aim to improve outcomes, there is no prescribed manner on how to achieve improvement.

What is **STANDARDS OF CARE**?

- These are the skills and learning commonly possessed by members of a profession. (Guido, 2006, p. 55)
- These are used to evaluate the quality of care nurses provide and, therefore, become legal guidelines for nursing practice.

What is **NURSING STANDARD**?

- It is a valid definition of nursing quality and includes criteria which can be used to assess efficiency (Mason, 1994).

Why are **STANDARDS** important?

- Outlines what the profession expects of its members.
- Promotes guides and directs professional nursing practice – important for self-assessment and evaluation of practice by employers, clients and other stakeholders.
- Provides nurses with a framework for developing competencies
- Aids in developing a better understanding & respect for the various & complimentary roles that nurses have.

CLASSIFICATIONS OF STANDARDS

1. **Internal Standards** - include "the nurse's job description, education, expertise as well as individual institutional policies and procedures.

2. **External Standards**- consist of the following:

- Nurse Practice Acts (RA 9173)
- Professional Organizations (ANA, PNA)
- Nursing Specialty Practice Organizations (ANSAP, ORNAP, MCNAP, PONA)
- Federal Organizations and Federal Guidelines (JCAHO, AHRQ, DOH, PRC-BON)

ASSESSING QUALITY OF HEALTH CARE

In quality assessment, *quality is measured against a set of standards.*

• **Goals**

- Serve as targets for improvement.
- The desired-for situation targeted by a performance improvement program.

• **Standard**

- *Statements of expectations* for the inputs, processes, behaviors and outcomes of health systems, they can effectively limit variations by defining what is expected from the organization in its daily activities.

• **Criteria**

- Lay down specific actions that need to be done to meet the standard.
- Should reflect contemporary best practice principles, be achievable, easily understood and measurable.
- Are developed to specify the attributes of structure, process and outcome components of care.
- Whether care is “good enough” depends on the criteria satisfying the standards.

• **Indicators**

- Listings of expression of standards.
- These are *measurable variables or characteristics* that can be used to determine the degree of adherence to a standard or achievement of quality goals.

To illustrate:

Goal	• Recruitment, selection and appointment of staff comply with statutory requirements and are consistent with the organization’s human resource policies.
Standard	• All services are provided by staff members with appropriate qualifications, experience or training.
Criteria	<ul style="list-style-type: none"> • All doctors, nurses and midwives providing clinical care have current licenses and documented evidence of appropriate training and experience. • All administrative, business and technical services staff have current

licenses and documented evidence of appropriate training and experience.

Indicator • Percentage of staff with current licenses.

Donabedian Model of Quality of Care Assessment

Traditionally, quality of care assessment is an evaluation of the three components involved in the delivery of health care (Donabedian 1992). These (3) components take into account:

- **Structural component**
 - * Material and human resources
 - * Includes the number and capability of the medical and paramedical staff, the number and adequacy of diagnostic and treatment facilities, and the physical environment in which care is given.
- **Process component**
 - * Non-medical actions
 - Include food provision, hospital room/ward maintenance and regulation of visiting hours.
 - * Medical actions
- **Outcome component**
 - * Physical, psychological and social effects of health care

THREE-TIER LEVELS OF QUALITY IN NURSING CARE (Kadivec, 2002)

1. Level 1: ACCEPTABLE NURSING - MINIMUM standards
 - * All patients are cared for according to a routine plan.
2. Level 2: COMPARATIVELY GOOD - OPTIMUM standards
 - * Nursing is planned but the patient is not directly involved in planning and assessment.
3. Level 3 - EXCELLENT - VERY GOOD NURSING - MAXIMUM standards

- * Nursing is planned and assessed together with the patient and his relatives. The patient is an equal partner in the nursing process.

Nursing that cannot be placed at any level is unacceptable - poor nursing - level 0

CHARACTERISTICS OF GOOD STANDARDS (Purnat, 1996)

The features that are characteristic for good standards are shown with the aid of the acronym **RUMBA**, which means:

- **R - RELEVANT** - real and appropriate with regard to:
 - universal standards,
 - the unit which is being standardised,
 - intervention which is being standardised,
 - the group of patients, and
 - abilities and responsibilities of the nurse.
- **U - UNDERSTANDABLE** for:
 - nurses who perform and evaluate nursing, and
 - students and pupils.
- **M - MEASURABLE** - which is achieved by designing clear criteria in:
 - structures,
 - a procedure oriented to the nurse, and
 - the result oriented to the patient.
- **B - BEHAVIOURAL** - objective:
 - which must be designed on objective and scientific bases.
- **A - ATTAINABLE** - achievable and feasible with regard to:
 - the group of patients for whom the standard is intended,
 - capacity of the department, clinic and profession in the country, and
 - abilities of the performers and assessors.

WHAT ARE NURSING-SENSITIVE QUALITY INDICATORS?

Nursing-Sensitive Quality Indicators

- These are those indicators that capture care or its outcomes most affected by nursing care (American Nurses Association).

10 Nursing-Sensitive Quality Indicators for Acute Care Settings:

1. Mix of RNs, LPNs, and Unlicensed Staff Caring for Patients in Acute Care Settings: the percent of registered nursing care hours as a total of all nursing care hours. would be the percent of RN contracted hours of total nursing care hours.
2. Total Nursing Care Hours Provided per Patient Day: total number of productive hours worked by nursing staff with direct patient care responsibilities on acute care units per patient day.
3. Pressure Ulcers : this measure would be defined and calculated as:

$$\frac{\text{Total Number of Patients with Stage I, II, III, or IV Ulcers}}{\text{Number of Patients in a Prevalence Study}}$$

4. Patient Falls : the rate per 1,000 patient days at which patients experience an unplanned descent to the floor during the course of their hospital stay. The measure would be computed as:

$$\frac{\text{Total Number of Patient Falls Leading to Injury}}{\text{Total Number of Patient Days} \times 1,000}$$

5. Patient Satisfaction with Pain Management: patient opinion of how well nursing staff managed their pain as determined by scaled responses to a uniform series of questions designed to elicit patient views regarding specific aspects of pain management.
6. Patient Satisfaction with Educational Information — A measure of patient perception of the hospital experience related to satisfaction with patient education: patient opinion of nursing staff efforts to educate them regarding their conditions and care requirements as determined by scaled responses to a uniform series of questions designed to elicit patient views regarding specific aspects of patient education activities.
7. Patient Satisfaction with Overall Care — A measure of patient perception of the hospital experience related to satisfaction with overall care: patient opinion of the care received during the hospital stay as determined by scaled responses to a uniform series of questions designed to elicit patient views regarding global aspects of care.
8. Patient Satisfaction with Nursing Care — A measure of patient perception of the hospital experience related to satisfaction with nursing care: patient opinion of care received from nursing staff during the hospital stay as determined by scaled responses to a uniform series of questions designed to elicit patient views regarding satisfaction with key elements of nursing care services.
9. Nosocomial Infection Rate: this measure would be defined and calculated as:

$$\frac{\text{Number of Laboratory Confirmed Bacteremia Associated with Sites of Central Lines}}{1,000 \text{ Patient Days per Unit}}$$

10. Nurse Staff Satisfaction: job satisfaction expressed by nurses working in hospital settings as determined by scaled responses to a uniform series of questions designed to elicit nursing staff attitudes toward specific aspects of their employment situation.

IMPROVING QUALITY OF HEALTH CARE

Evolution in Quality Thinking in Industry and in the Health Service

- **Quality Control**

- * The quality movement first took root in the manufacturing industry.
- * Initial efforts at improvement centered on quality control *which involved inspection of finished products aimed at the detection of deviations from their predetermined design.*
- * These deviations were considered errors or defects. Defective products were either re-worked or discarded.
- * However, it soon became apparent that quality control was *an expensive and wasteful process.* This is very apparent in health care.
- * Inspection of the finished surgical work would not ensure that the correct limb had indeed been amputated.
- * Inspection of the cleanliness of a hospital's premises would not ensure that accidents like slips and falls from spilt liquids would not occur.
- * Counting adverse drug events would do no good to patients who have already developed drug hypersensitivities.
- * Ideas on quality thus evolved and expanded, leading to concepts like quality assurance, quality improvement and total quality management.
- * Applied in the health care industry, the *optimum attainable outcome was called total quality health care.*
- * The industrial reconstruction activity in post-war Japan gave birth to the ideas on statistical quality control and standardization of **W. Edward Deming**, an electrical engineer by training with a doctorate in mathematical physics from Yale.

- One of several American production experts recruited by Gen. Douglas MacArthur to advise Japanese industrialists, Deming went on to become a *renowned quality control guru in Japan*, where that country's prestigious quality control award, the Deming Award, is named after him.
- Deming is known internationally for his simple yet revolutionary principle that *all processes are vulnerable to loss of quality due to variation*. He forwarded the idea that quality improvement results from management-oriented reduction of levels of variation (Kennedy 1991; Peters and Austin 1985).

- **Quality Assurance**

- * Deming's ideas regarding *standardization* and *variance reduction* would later be appropriated in the quality assurance thinking in health care.
- * This perspective looks at the *prescription of a set of preventive activities to ensure the quality of the finished product*.
- * These activities evaluate whether the processes of planning, execution, delivery and maintenance of goods and services are being performed according to stated design.
- * The ***Do-It-Right-The-First-Time*** Slogan
 - Appropriated from the American Telephone and Telegraph corporate slogan conceived as early as the 1920s.
 - This thinking received contemporary validation with **Philip Crosby's** book, *Quality is Free* (1979) where he reported observing that American companies were using up a fifth of their time, capital and management resources in fixing problems.
 - His approach revolves around **zero-defect**.
 - Doing things right the first time is better than is always cheaper than trying to fix defects after they have been created, thus quality is free.
 - Crosby suggested that these resources could be rechanneled to more productive use if procedures were correctly executed at the start.
 - There is no such thing as the economics of quality, Crosby said, adding that it is always cheaper to do the job right the first time. (Caldwell, 1998; Crosby, 1979; Barry, Murcko and Brubaker 2002).

- **Quality Improvement**

- * It is the *combined and unceasing efforts of everyone*—healthcare professionals, patients and their families, researchers, payers, planners and educators—to make the changes that will lead to better patient outcomes (health), better system performance (care) and better professional development (Batalden & Davidoff, 2007).

- * Healthcare will not realize its full potential unless change making becomes an intrinsic part of everyone's job, every day, in all parts of the system.
- * Defined in this way, improvement involves a substantial shift in our idea of the work of healthcare, a challenging task that can benefit from the use of a wide variety of tools and methods.

- **Quality Management**

- * This is the *organization-wide pursuit of quality*.
- * The name implies managerial oversight of quality of health care (Donabedian, 2003).
- * The *commitment to quality begins with management*, and it is also management that ensures support for the deployment of activities towards this commitment.
- * When the pursuit of quality includes the perspectives of internal (staff and funders) and external customers (patients, payors and contractors), the process is called **total quality management (TQM)**.
- * But while TQM is a means to achieve total quality, *total quality goes beyond achieving patient satisfaction*. It seeks to exceed expectations of internal and external customers and ensure the sustainability of organizations by involving all levels of management, maintaining continuous improvement, and generating income, return of investments and staff loyalty (Kelada, 1996).
- * *Management's involvement in achieving quality is an important component of TQM*.
- * This can be seen in how Deming advocates quality attainment through the use of statistics, in the belief that such a method leads to self-inspection (or "control") by the very people involved in production. But Deming has cautioned against too much focus on statistical figures and clarified that *quality is about people, not products* (Peters and Austin, 1985).
- * In an apparent effort to show management's responsibility in attaining quality, Deming once said that *85% of production faults were due to management*, not workers (Kennedy, 1991).
- * **Deming's 14 Management Responsibilities for Attaining Quality** (Deming 1982; Barry, Murcko and Brubaker 2002; Nelson 1995)
 1. Create consistency of purpose.
 2. Adopt the new philosophy.
 3. Cease dependence on inspection.
 4. End the practice of awarding business on the basis of price alone.
 5. Improve constantly.
 6. Institute training/ retraining.
 7. Institute leadership.
 8. Drive out fear.
 9. Break down barriers between departments.

10. Eliminate arbitrary quotas, exhortations and slogans without providing resources.
 11. Eliminate work standards (quotas) for management.
 12. Remove barrier to pride of workmanship.
 13. Institute programs for education and self-improvement for everyone.
 14. Transform everyone's job to transform the organization.
- * Another TQM concept is the shift espoused by **Dr. Donald Berwick**, president of the U.S.-based Institute for Health Care Improvement and principal investigator for the National Demonstration Project for Quality Improvement in Health Care, from the **"Bad Apple Theory"**
 - A thinking which warns about how the presence of one bad element will negatively affect the entire unit—to a systems approach to quality improvement (WHO, 2001).
 - * **James Reason**, pioneer and expert on human error and system safety, talks of the existing **"Blame Culture"** in health care (Reason, 2000).
 - He reiterates that *errors in health care happen not because of a single event, or because of a single person's error, but because a combination of risk factors within the system itself have aligned and made the error more likely to happen.*
 - In this thinking, known as the **"Swiss Cheese" Model**, Reason says the "holes" in the system align, and open up opportunities for errors to happen.
 - He suggests the logical approach is to identify these "holes" in the system, fix them, and thus prevent the trajectory of error from taking a path.
 - This perspective in error prevention and performance improvement is the current mode of thinking in the appraisal and improvement of conditions under which health care professionals work.
 - Reason (1990) recommends caution in evaluating errors and identifying culprits. Though it seems easier to pin the blame on one person or a group of individuals, it is worth remembering that most people involved in serious accidents are neither stupid nor reckless, and that hindsight bias may cloud judgment.
 - Instead, he suggests a few ways in which to assess and reduce human error risks.

- * While Deming espoused his 14 points in the USA, **Joseph M. Juran** of Japan espoused a cross-functional management approach that requires due consideration to three vital processes:
 - **Quality planning**, or defining the customer, identifying their needs, and developing the product or process.
 - **Quality control** or establishing standards of performance, measuring actual performance, and taking steps to bridge the gaps.
 - **Quality improvement** or implementing improvement interventions, usually through quality teams.

Juran's Quality Trilogy

Juran's Quality Trilogy consists of quality planning, quality control, and quality improvement.

Quality Planning provides a system that is capable of meeting quality standards.

Quality Control is used to determine when corrective action is required.

Quality Improvement seeks better ways of doing things.

- * Pioneered by Motorola and made famous by General Electric, the **Six Sigma** method ranks among the most popular quality management tool.
 - It aims to reducing defects or variance in processes by applying a statistical based problem solving methodology that identifies variances from the standard mean and tries to eliminate such variances.
 - Six Sigma adopts a structured methodology that involves DMAIC. **DMAIC** is define the **problem, measure, analyze, implement, and control**. Comparing the baseline process capability with the

- actual performance or process capability helps to chalk out potential solutions for quality improvement.
 - Six Sigma works on the assumption that all the key underlying variables and the interactions among such variables are obvious. This need not always hold true. Design of Experiments (DoE), or experimental design is a structured and organized way of collecting multivariate data for modeling, and helps to determine whether the variables are under the full control of the experimenter.
- * **Lean** is a minimalist philosophy that *aims at bringing efficiency by using the minimum required*.
 - The approach requires identifying customer needs, and improving processes by eliminating activities that do not add value to the customer.
 - It works on the assumption that removal of waste processes improve business performance, and that many micro level small improvements are better than a comprehensive macro system analysis. It nevertheless leads to reduced flow time, process efficiency, and less inventory
 - Lean works by applying:
 - **Kaizen** (change for the best) or continuous improvement to improve the process by eliminating waste
 - **5S (Sort, Set, Shine, Standardize, Sustain), or the workplace organization methodology** that guides how to organize the workspace for efficiency and effectiveness
 - **Just in Time (JIT)** inventory methods
 - **Zero defect methodology**... and more.
- * Effective health care can only be delivered in a safe and efficient environment, and because patients expect more than just medicines or treatments, the quality of hospital management becomes just as important as the care itself.
- * TQM being client-driven, participatory, and process- and team-oriented, it calls for flatter, less hierarchical organizations where managers directly lead teams built around principal work processes (Milakovich 1995).
- * In a hospital setting, this would mean organizing patient entry, care and discharge teams with each group composed of doctors, nurses and support staff.
- * Other Features of TQM (Milakovich, 1995)
 - Decentralized workforce
 - Integrated data systems
 - Long-term and quality-oriented relationships with other stakeholders
 - Training is integrated with quality and productivity goals
 - Quality is measured by client needs and process improvement

- Quality reflects continuous improvement and client satisfaction

Quality Improvement Requires a Different Approach Than Quality Assurance

	<i>Quality Assurance</i>	<i>Quality Improvement</i>
Motivation	Measuring compliance with standards	Continuously improving processes
Attitude	Required, defensive	Chosen, proactive
Focus	Outliers: “ <i>bad apples</i> ” Individuals	Processes Systems
Responsibility	Few	All

The Difference Between QA and CQI

	Quality Assurance	Quality Improvement
Motivation	Measuring compliance with standards	Continuously improving processes to meet standards
Means	Inspection	Prevention
Attitude	Required, defensive	Chosen, proactive
Focus	Outliers “bad apples” Individuals	Processes Systems
Scope	Medical Provider	Patient Care
Responsibility	Few	All

Retrieved from www.hrsa.gov/toolbox/HealthITAdoption/QualityImprovement

Faces of Quality Improvement

	<i>Quality Improvement</i>	<i>Clinical Research</i>
Aim	Improvement of care	New knowledge
Test observability	Test observable	Test blinded
Sample size	“Just enough” data, small sequential samples	“Just in case” data
Testing strategy	Sequential tests	One large test
<i>Solberg, Mosser, and McDonald, Journal on Quality Improvement. March 1997, Vol.23, No. 3.</i>		

The quality gurus compared

	Crosby	Deming	Juran
Definition of quality	Conformance to requirements	A predictable degree of uniformity and dependability at low cost and suited to the market	Fitness for use
Degree of senior management responsibility	Responsible for quality	Responsible for 94 per cent of the quality problems	Less than 20 per cent of quality problems are due to workers
Performance standard/motivation	Zero defects	Quality has many "scales"; use statistics to measure performance in all areas; critical of zero defects	Avoid campaigns to "do perfect work"
General approach	Prevention, not inspection	Reduce variability by continuous improvements; cease mass inspection	General management approach to quality, especially "human elements"
Structure	14 steps to quality improvement	14 points for management	Ten steps to quality improvement
Statistical process control (SPC)	Rejects statistically acceptable levels of quality	Statistical methods of quality control must be used	Recommends SPC but warns that it can lead to "tool-driven" approach
Improvement basis	A "process", not a programme; improvement goals	Continuous to reduce variation; eliminate goals without methods	Project-by-project team approach; set goals
Teamwork	Quality improvement teams; quality councils	Employee participation in decision making; break down barriers between departments	Team and quality circle approach
Cost of quality	Cost of non conformance; quality is free	No optimum, continuous improvement	Quality is not free, there is an optimum
Purchasing and goods received	State requirements; supplier is extension of business; most faults due to purchasers themselves	Inspection too late; allows defects to enter system through acceptable; statistical evidence and control charts	Problems are complex; carry out formal surveys
Vendor rating	Yes and buyers; quality audits useless	No, critical of most systems	Yes, but to help supplier improve
Single sourcing of supply	No	Yes	No, can neglect to sharpen competitive edge

Source: Oakland (1989)

PRINCIPLES OF QUALITY (National Quality Center)

1. "Quality improvement is a journey of many small steps."
2. "Success is Achieved Through Meeting the Needs of Those We Serve"
3. "Most Problems are Found in Processes and Systems, Not in People"
 - How Processes Fail:
 - * Poor design
 - * Too complex
 - * Not well understood by those who work in them
 - * Not set up to deliver what the "individuals and populations
 - Why we Focus on Processes:
 - * "Each process is perfectly designed to get the results it achieves"
 - * Getting a better result therefore requires re-designing the process
4. "Actions are Based Upon Accurate and Measured Data"
5. "Achieve Continual Improvement Through Small, Incremental Changes"
6. "Infrastructure Enhances Systematic Implementation of Improvement Activities"
7. "Do not Reinvent the Wheel -Steal Shamelessly, Share Senselessly"

IMPLEMENTING THE NEW QUALITY ASSURANCE FRAMEWORK

The idea of accreditation as a means to ensure quality care provision began in 1918 when studies on post-operative infections by **Dr. Ernest Codman**, a surgeon at the Massachusetts General Hospital, influenced the American College of Surgeons to establish the Hospital Standardization Program, which was later adopted by the Joint Commission on Accreditation of Hospitals.

Implementation activities for PhilHealth's Quality Assurance framework

Implementation of the QA framework involves the following interrelated activities:

1. Accreditation Program

- * Accreditation Department takes charge of accrediting health care providers.

- * Teams of skilled surveyors conduct two levels of assessments:
 - first, they evaluate compliance with documentary requirements.; and
 - second, they visit the provider site to evaluate actual operations.
- * Accreditation program verifies the qualifications and capabilities of health care providers to deliver the desired and expected quality of health care services.
- * Accreditation program is founded on the ideas on assessment of health care introduced in 1966 by Lebanon-born public health expert **Avedis Donabedian** (1919-2000), and which now constitute the principal paradigm in the evaluation of health care provision (Frenk, 2000).
- * Donabedian's ideas describe the relationship between **structures**, **processes** and **outcomes** and posit that an organization with the right structures and processes in place will produce better outcomes.
- * **The Donabedian Approach**
 - a. This approach focuses on standards that require the presence of:
 1. Structures (buildings, manpower, equipment, organizational relationships, etc)
 2. Processes (treatment, committee activities, performance guidelines, etc), and
 3. Outcomes (cure, less pain, disability, death).
 - b. Donabedian urges that all three measures—structure, process, outcome—be used when assessing and monitoring the quality of health care.
 - c. He adds that quality assessment aims to determine how successful providers have been able to do their work, and that quality monitoring generates constant surveillance which facilitates early detection and correction of any deviation from standards (Jonas and Rosenberg 1986).
- * **Philip Crosby**, quality management expert and author of the book *Quality is Free* (1979) wrote that the focus of quality is conformance.
 - Applied to the health care setting, it means compliance with standards.
- * An important component of the accreditation process is determination of compliance with set standards.
- * Accreditation standards shall be redeveloped in consultation with the health care industry.
- * Should be equally applicable to all health care organizations regardless of whether they are a hospital, day surgery unit, community service, or some other type of health care organization.
- * Should reflect contemporary best practice principles, be achievable, easily understood and measurable.

- * Section 58 of the PhilHealth Implementing Rules and Regulations (2000) includes the following health care providers as participants in the NHIP:

- a. ***Institutional Health Care Providers***

- Hospitals
 - Out-patient Clinics
 - Health Maintenance Organizations (HMOs)
 - Preferred Provider Organizations (PPOs)
 - Community-Based Health Care Organizations

- b. ***Independent Health Care Professionals***

- Physicians
 - Dentists
 - Nurses
 - Midwives
 - Pharmacists
 - Other duly licensed health care professionals

2. **Clinical Practice Guidelines and Clinical Pathways**

- * Ever-increasing evidence points to the role of clinical practice guidelines and clinical pathways in the reduction of variations in practice and consequently, in outcomes.
- * These guidelines should eventually, through education and implementation strategies, be adopted as operational pathways in health service provider organizations.
- * PhilHealth has disseminated CPGs on Hypertension, Community-acquired Pneumonia and Urinary Tract Infection nationwide.

3. **Performance Measurements**

- * Monitoring is an important component in the evaluation of an organization's performance as it allows measurement and assessment of patient care and other service processes provided by health care provider organization.
- * Performance targets shall be established and the frequency with which these targets are met (or not met) shall provide quantitative evidence on the quality of the service.
- * Patients have a fundamental right to participate in health care decisions and delivery. However, they need to have information to effectively participate. High quality, dependable information on the performance of health care organizations is not currently available to the public in the Philippines.

QUALITY ASSURANCE IN NURSING ACCORDING TO THE NORMA LANG MODEL

The Norma Lang Model of Quality Assurance

The Norma Lang model has seven levels that run through three phases:

1. Description

- * In the first phase - Description - we identify the values and attitudes that lead us to nursing. Then we select criteria for excellent nursing in standards covering the structure, process and outcome.

2. Measurement

- * In the second phase - Measurement - we choose the methodology that is used to determine what our practice is like in comparison with standards and criteria of excellent (very good) nursing, which we have set internally or were set externally.
- * The results obtained are analyzed and then we decide if and why we need changes.
- * The authoress of this model recommends the inclusion of so-called **SWOT factors** (Strengths, Weaknesses, Opportunities, Threats - or hazards and traps) in the analysis.

3. Action

- * In the third phase - Action - we choose the changes and paths along which the changes will run in our environment and finally introduce the changes in our routine work.

STANDARDS FOR SAFE NURSING PRACTICE (BON Res. No. 110 Series of 1998)

Safe Nursing Practice refers to appropriate and rational acts of the nurse that ensure:

- Protection of clients from harm that may result from disruption in physiologic and sociologic preventive mechanism.
- Promotion of health and wellness.
- Restoration of optimal functioning, early recovery, alleviation of suffering or when recovery is not possible, a peaceful and dignified death.
- Protection of health care providers, including client's family/SO and members of the community.
- A balanced ecosystem.

NATIONAL NURSING CORE COMPETENCY STANDARDS

2005 Core Competency Standards for Nursing Practice in the Philippines

Legal Basis

Article 3 Sec.9 (c) of R.A. 9173/ "Philippine Nursing Act 2002" Board shall monitor & enforce quality standards of nursing practice necessary to ensure the maintenance of efficient, ethical and technical, moral and professional standards in the practice of nursing taking into account the health needs of the nation.

Significance of Core Competency Standards

- Unifying framework for nursing practice, education, regulation
- Guide in nursing curriculum development
- Framework in developing test syllabus for nursing profession entrants
- Tool for nurses' performance evaluation
- Basis for advanced nursing practice, specialization
- Framework for developing nursing training curriculum
- Public protection from incompetent practitioners
- Yardstick for unethical, unprofessional nursing practice

11 Key Areas of Responsibility

1. Safe & quality nursing practice
2. Management of resources & environment
3. Health education
4. Legal responsibility
5. Ethico-moral responsibility
6. Personal & professional development
7. Quality improvement
8. Research
9. Record management
10. Communication
11. Collaboration & Teamwork

2012 National Nursing Core Competency Standards

Introduction

Heightened by the escalating complexity of globalization, dynamics of information technology, demographic changes, health care reforms and increasing demands for quality nursing care from consumers, expectations for contemporary nursing practice competencies emerged. Thus, in 2005, as an output of a key project, Board of Nursing Resolution no. 112 Series Of 2005, adopted and promulgated the Core Competency Standards of Nursing Practice in the Philippines. As mandated, the Board of Nursing ensured, through a monitoring and evaluation scheme, that the core competency standards are implemented and utilized effectively in nursing education, in the development of test questions for the Nurse Licensure Examination (NLE), and in nursing service as a basis for orientation, training and performance appraisal.

Through the years of implementation, global and local developments in health and likewise, professional nursing developments prompted the Board of Nursing to conduct a “revisiting “ of the Core Competency Standards of Nursing Practice in the Philippines. In 2009, the Board of Nursing created the Task force on Nursing Core Competencies Revisiting Project in collaboration with the Commission on Higher Education Technical Committee on Nursing Education with the primary goal of determining the relevance of the current nursing core competencies to expected roles of the nurse and to its current and future work setting.

Legal Bases

Article III, section 9 (c) of **Republic Act No. 9173** or the Philippine Nursing Act of 2002, states that the Professional Regulatory Board of Nursing is empowered to “monitor and enforce quality standards of nursing practice in the Philippines and exercise the powers necessary to ensure the maintenance of efficient, ethical and technical, moral and professional standards in the practice of nursing taking into account the health needs of the nation.” It is, therefore, incumbent upon the Board of nursing to take the lead in the improvement and effective implementation of the core competency standards of nursing practice in the Philippines to ensure safe and quality nursing care, and maintain integrity of the nursing profession.

Significance of the 2012 National Nursing Core Competency Standards

The 2012 National Nursing Core Competency Standards (2012 NNCCS) will serve as a guide for the development of the following:

- Basic Nursing Education Program in the Philippines through the Commission on Higher Education (CHED).
- Competency-based Test Framework as the basis for the development of course syllabi and test questions for “entry level” nursing practice in the Philippine Nurse Licensure Examination.
- Standards of Professional Nursing Practice in various settings in the Philippines.
- National Career Progression Program (NCP) for nursing practice in the Philippines.

- Any or related evaluation tools in various practice settings in the Philippines

2012 NATIONAL NURSING CORE COMPETENCY STANDARDS	
BEGINNING NURSE'S ROLE ON CLIENT CARE	
Responsibility 1:	Practices in accordance with legal principles and the code of ethics in making personal and professional judgment.
Responsibility 2:	Utilizes the nursing process in the interdisciplinary care of clients that empowers the clients and promotes safe quality care.
Responsibility 3:	Maintains complete and up to date recording and reporting system.
Responsibility 4:	Establishes collaborative relationship with colleagues and other members of the team to enhance nursing and other health care services.
Responsibility 5:	Promotes professional and personal growth and development.
BEGINNING NURSE'S ROLE ON MANAGEMENT AND LEADERSHIP	
Responsibility 1:	Demonstrates management and leadership skills to provide safe and quality care.
Responsibility 2:	Demonstrates accountability for safe nursing practice.
Responsibility 3:	Demonstrates management and leadership skills to deliver health programs and services effectively to specific client groups in the community settings.
Responsibility 4:	Manages a community/village based health facility/component of a health program or a nursing service.
Responsibility 5:	Demonstrates ability to lead and supervise nursing support staff.
Responsibility 6:	Utilizes appropriate mechanisms for networking, linkage building and referrals.
BEGINNING NURSE'S ROLE ON RESEARCH	
Responsibility 1:	Engages in nursing or health related research with or under the supervision of an experienced researcher.
Responsibility 2:	Evaluates research study/report utilizing guidelines in the conduct of a written research critique.
Responsibility 3:	Applies the research process in improving client care in partnership with a quality improvement/quality assurance/nursing audit team

Conceptual Framework of the 2012 NNCCS

Description

A work-setting scenario on local and global health industry demands was determined after conducted assessments, benchmarking studies, and application of the competency-based framework and creation paradigm. This sets the stage “beginning” professional nursing competencies for the care of clients especially performance in 3 very distinct and clear ROLES: the **Beginning Nurse Role on Client Care**, the **Beginning Nurse Role on Management and Leadership**, and the **Beginning Nurse Role on Research**. These roles set expected patterns of professional behavior for the professional nurses in society, performed within clearly established and universally accepted process --- the **NURSING PROCESS**.

In each of the roles are **RESPONSIBILITIES**. These are obligations explicitly carrying the authority afforded by the state to every duly licensed professional nurse. It spells out very particular mandate in terms of expected performances in order to decide and act based on scientific evidences as well as ethico-moral-spiritual and legal basis for nursing care.

These responsibilities are translated in what is to be recognized as **CORE COMPETENCIES** referred to as technical capacities needed for doing the tasks and roles expected of every Filipino Professional Nurse.

At the innermost circle is the *raison d'être* (reason for being as nurses). These consist of individuals, families, population groups, and communities as clients. They are the recipients of holistic care provided by nurses in any work setting.

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