

# Measurement of Nursing Professional Quality – The Land of Opportunities

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# Presentation Outline



Healthcare quality



Donabedian  
framework



Quality indicators



Nursing sensitive  
indicators

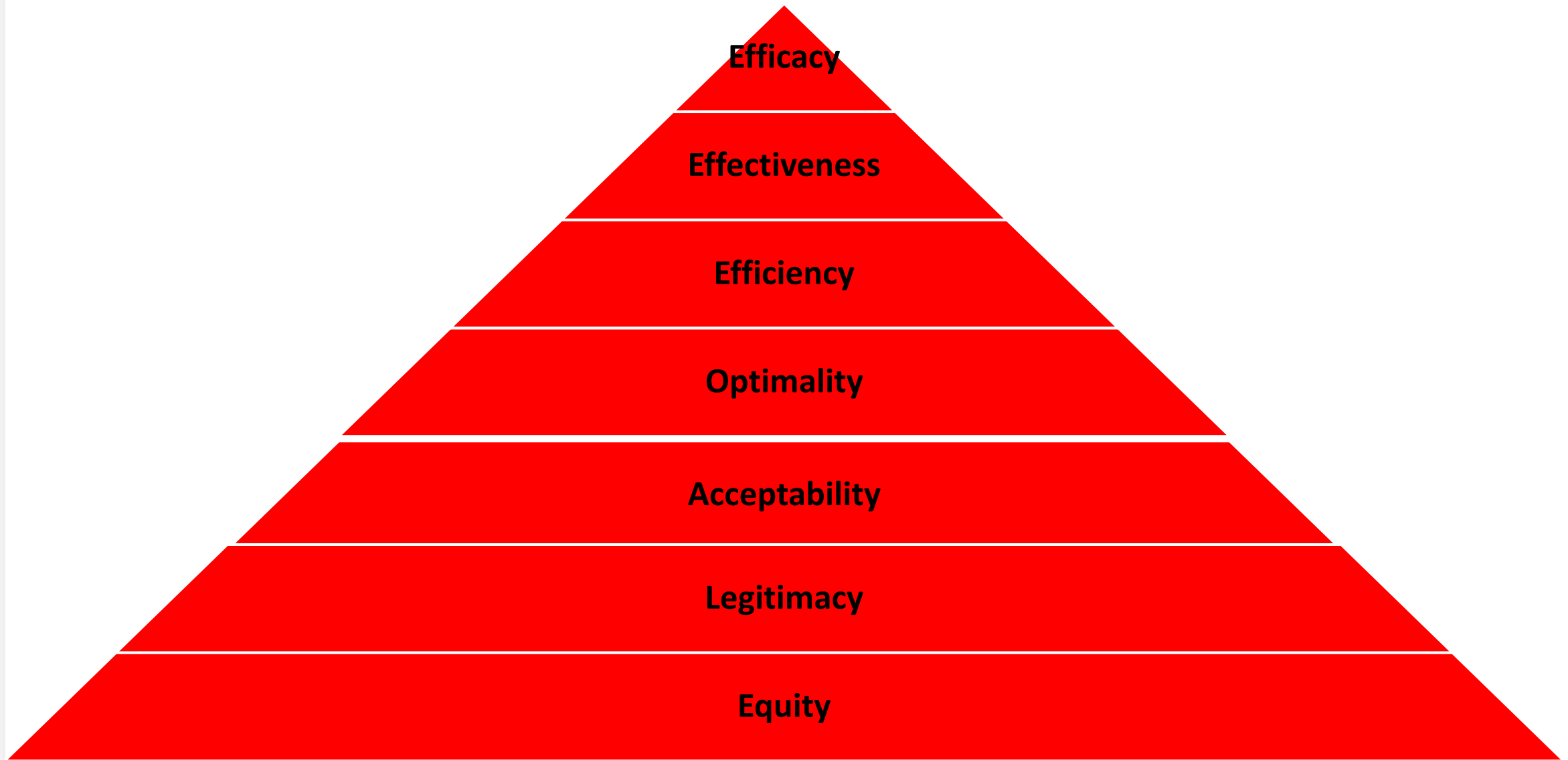
# Healthcare Quality

- Quality in healthcare is the extent to which a healthcare service or product produces a desired outcome or outcomes (Gardner & Mazza, 2012)
- Healthcare quality traces its beginnings back to the Crimean War (Florence Nightingale) although really began in the 1960s
  - Avedis Donabedian
    - Evaluating the quality of medical care (1966)

*“Systems awareness and systems design are important for health professionals but are not enough. They are enabling mechanisms only. It is the ethical dimension of individuals that is essential to a system’s success. Ultimately, the secret of quality is love.”*

- Quality improvement involves actions taken to establish, protect, promote and improve the quality of healthcare (Donabedian, 2002)

# Donabedian 7 Pillars of Quality (Donabedian, 2002)



# Donabedian's 9 steps for Quality Healthcare

Step 1 – 'Planned reconnaissance' what is it that needs to be assessed?

Step 2 – Prioritisation of the problems

Step 3 – Planning an approach to assess the problem

➤ *Structures, Processes and Outcomes*

Step 4 – The creation and application of the standards

Step 5 – Obtaining the necessary information

Step 6 – Choosing when and how to monitor

Step 7 – Constructing a monitoring system

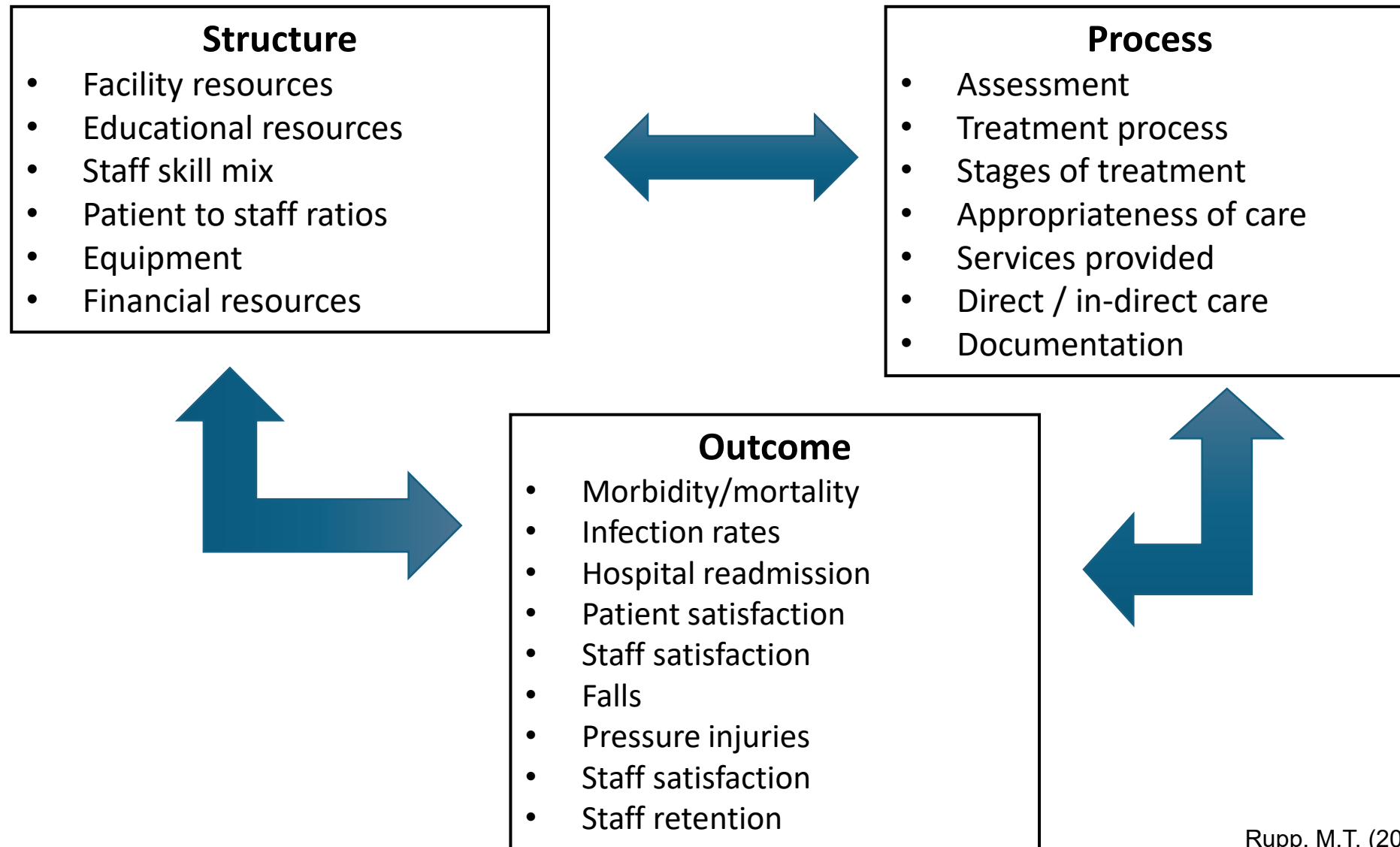
Step 8 – Creation of a governing body to control or direct the care within a hospital

Step 9 – Assessment and monitoring

## Quality Indicators – Structure, Process, Outcome

- Structure – is how the delivery of health services is organized, including distribution, and qualification of professional personnel, number of staff and resources
- Process - is the interactions between the patients and providers (how things work in an organisation)
- Outcomes - are the effects of healthcare on the health status, behaviour, or knowledge as well as patient satisfaction and health-related quality of life. It is also the satisfaction of healthcare staff with their job and the retention of staff

# Donabedian Framework



## Quality Indicators – Structure, Process, Outcome

- At its most basic level, the framework can be used to modify structures and processes within a healthcare delivery department to improve patient flow or information exchange.
  - For instance, health administrators may be interested in improving treatment coordination process through enhanced communication to streamline patient care. The process for information exchange depends on the structure for receiving and interpreting results. The structure could involve an electronic health record.
- To improve this process, a healthcare administrator may look at the structure and decide to purchase new information technology (IT) system. The process could be modified through a change in standard protocol of determining how and when an alert is released and who is responsible for each step in the process.
- The outcomes to evaluate the efficacy of this quality improvement (QI) solution might include patient satisfaction, reduced length of hospital admission, timeliness of diagnosis, or clinical outcomes.



## Nursing Sensitive Indicators (NSIs)

- Measures that reflect the structure, processes and outcomes of nursing care (American Nurses Association, 2004).
- These indicators reflect the direct / indirect impact that nursing has on the outcomes of patients
- NSIs are the criteria for changes in health status that nursing care can directly affect
- Increasingly adopted as valid and reliable tools because
  - Objective assessment
  - Improvement of clinical practice
  - Evaluation of nursing care quality and performance

## What is a Nursing Sensitive Indicator (NSI)?

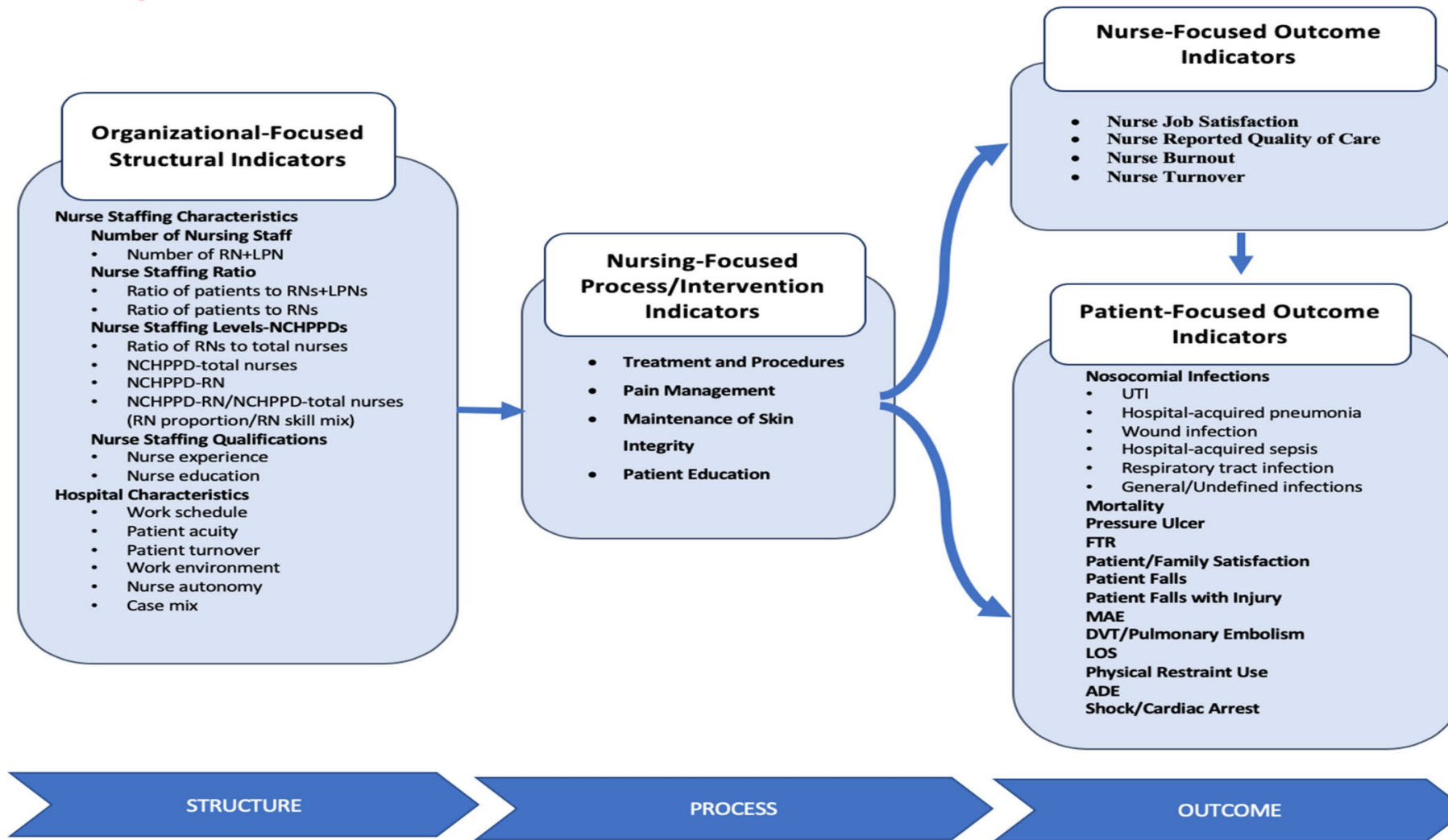
- What the nurse is doing for the patient and how this has a marked influence on the way that a patient responds to their illness (Ayedelotte, 1962)
- NSIs are things which are measured that will provide standardised data to evaluate the quality of nursing care, implement quality improvement initiatives, maintain cost efficiency, and develop resource plans (Xioquan, 2015)
- Can be measured and compared to a base-line over time (Maas et al., 1996)

## Learning from History

- Florence Nightingale was the first nurse to recognise the importance of quality assessment
- She used her statistical ability to create her famous polar area charts examining mortality rates among British soldiers during the Crimean war, which she attributed to poor sanitary conditions
- The ability to monitor the impact of sanitation led to improved hygiene standards and a reduction in the mortality rate among soldiers (McDonald, 2014)



# Nursing-Sensitive Indicators



## American Nurses Association (ANA) and the National Database of Nursing Quality Indicators (NDNQI)

1. Nursing hours per patient day
2. Nursing turnover rate
3. Nosocomial Infection
4. Patient falls
5. Patient falls with injury
6. Registered Nurse education
7. Restraints
8. Registered Nurse surveys on job satisfaction
9. Registered Nurse surveys on practice
10. Pressure ulcer rate
11. Paediatric pain assessment
12. Paediatric peripheral infiltration
13. Psychiatric physical / sexual assault
14. Skill mix

## International Council of Nurses (ICN) - Nurse Sensitive Outcomes

1. Management of symptoms
2. Functional status of patients
3. Nurses' knowledge of a patient's condition and its treatment
4. Patients' satisfaction level with their care
5. Unplanned emergency department visits
6. Unplanned readmission of patients
7. Strength of the treatment alliance

## Other International examples

- Belgium
  - Belgian Nursing Minimum Dataset (B-NMDS)
  - National registry of 23 nursing activities in an acute care setting
- United Kingdom
  - The Mid-Staffordshire Hospital enquiry
  - NHS England - Patient safety indicator
- Australia
  - No national database in Australia that specifically captures NSIs
  - Australia's National Safety and Quality Health Service Standards (NSQHSS) linked to accreditation
  - Victoria – 27 patient safety indicators
  - Queensland – 7 NSIs
    - Structure: Nurse-to-patient ratios, use of agency nurses, nurse sick leave
    - Outcome: Hand hygiene compliance, pressure injuries, medication administration incidents, falls incidence

# Haemodialysis Nursing Sensitive Indicators



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## Identifying nurse sensitive indicators specific to haemodialysis nursing: A Delphi approach



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### ABSTRACT

**Background:** Nurse sensitive indicators measure the quality of care that is specific to the practice of nurses. There are currently few indicators suitable to measure haemodialysis nursing practice.

**Aim:** To identify haemodialysis nurse sensitive indicators.

**Methods:** The Delphi technique, an iterative process, was used to attain consensus from a national expert panel of haemodialysis registered nurses. The panel rated their level of agreement, importance and frequency of nurse sensitive indicators using online surveys that included qualitative feedback. Results of each round shaped subsequent rounds. Consensus was set at greater than 70.0%.

**Findings:** The 38-member expert panel had a median haemodialysis experience of 17 years (IQR 8.5–22) and 89% had attained a specialist post-registration renal qualification. Round 1 assessed the suitability of 38 nurse sensitive indicators. Those indicators failing to achieve consensus were retested and removed after round 2 (n = 12). Round 3 assessed a modified list of 26 nurse sensitive indicators with all achieving consensus. The fourth and final round was used to both provide feedback to the expert panel and to elicit further qualitative feedback.

**Discussion:** A comprehensive set of quality indicators to measure nursing-sensitive activities in the spe-

McIntyre, D., Coyer, F., & Bonner, A. (2020). Identifying nurse sensitive indicators specific to haemodialysis nursing: A Delphi approach. *Collegian*, 27(1), 75-81.



# Peritoneal Dialysis Nursing Sensitive Indicators



## Implications and Recommendations

- Nurses are > 50% of the workforce in most countries
- Recognition of nurse's contribution to healthcare delivery and patient outcomes is crucial
- Focusing on high quality care and acknowledging the contributions of nurses are strategies for
  - Increasing nurse job satisfaction
  - Reducing staff turnover
- NSI provide the opportunity for nurses to benchmark, promote and audit healthcare
  - At ward level, NSI can enhance nursing documentation practices
  - At hospital level, NSIs can support the development of competence of nurses
  - At national level, NSIs can contribute to the creation of national quality register
  - At international level, NSIs can assist with Magnet Hospital designation
    - <https://www.nursingworld.org/organizational-programs/magnet/about-magnet/>

THANK YOU

