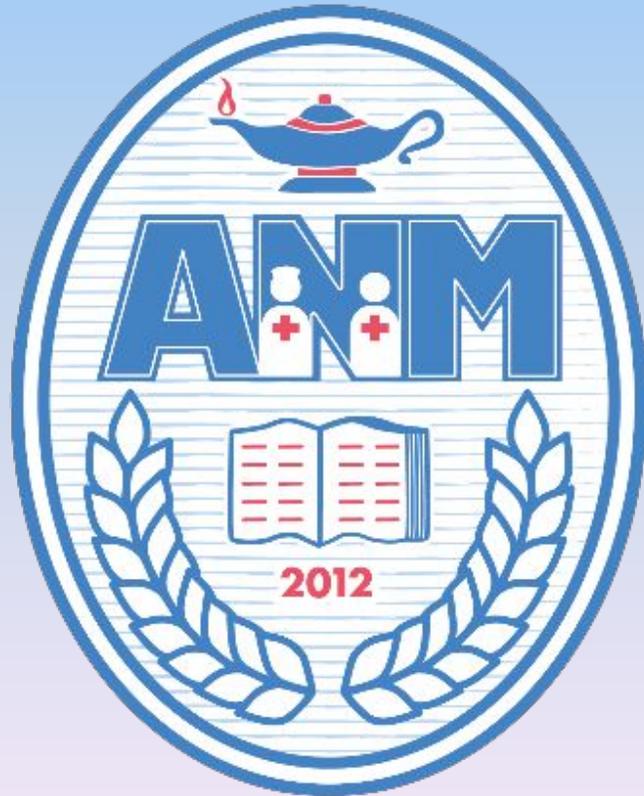


International Forum on  
QUALITY & SAFETY  
in HEALTHCARE  
HONG KONG

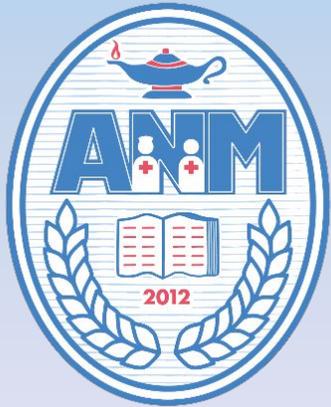
# S6: Nursing matters and beyond

# Advanced Practice Nursing: Opportunity & Challenge



- **Professor Chair Sek Ying**
- **Immediate Past President, Hong Kong Academy of Nursing & Midwifery**

# Declaration of Interest



- No conflict of interest!

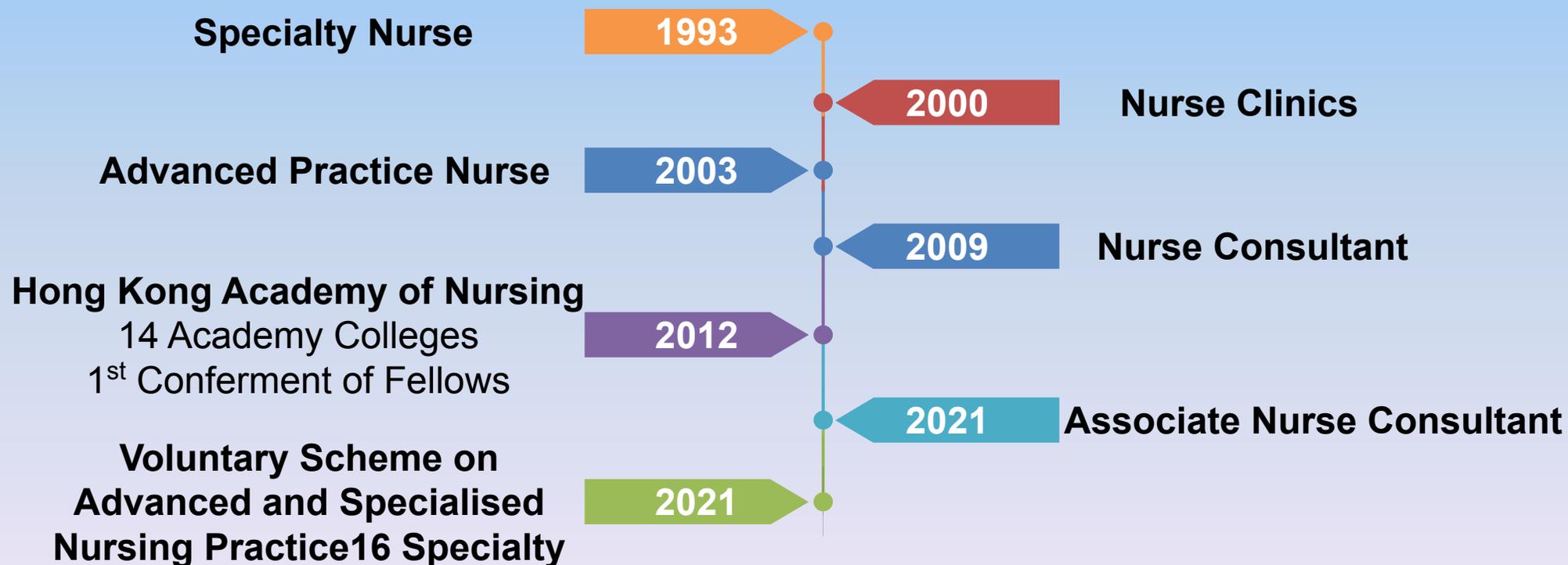
# Need for specialty nursing

- Complexity of nursing care
- Highly specialized knowledge & skills
- Better collaboration with healthcare team
- High quality care for public good
- Matching international standards

# Specialty Nursing & Advanced Practice Nursing

Specialist Nurse	Advanced Practice Nurse (APN)
<ul style="list-style-type: none"><li>• Holds a current license as a generalist nurse, and has successfully completed an education programme that meets the prescribed standard for specialist nursing practice.</li><li>• The specialist nurse is authorized to function within a defined scope of practice in a specified field of nursing.</li></ul>	<ul style="list-style-type: none"><li>• Has acquired, through additional education, the expert knowledge base, complex decision-making skills and clinical competencies for expanded nursing practice, the characteristics of which are shaped by the context in which they are <u>credentialed</u> to practice.</li><li>• The <b>Clinical Nurse Specialist</b> and <b>Nurse Practitioner</b> are two types of APNs most frequently identified internationally.</li></ul>

## Specialty Nursing development in Hong Kong



# Voluntary Scheme on Advanced and Specialised Nursing Practice – Hong Kong Nursing Council

A currently employed registered nurse (“RN”) in Hong Kong meeting the following criteria should be eligible to apply for recognition as an APN with the Council:

a) obtained a post-RN registration Clinical Master in Nursing / Health Science in the related specialty;

OR

b) obtained a post-RN registration Master degree in health related stream AND completed the Post-registration Certificate Course (“PRCC”) / Hospital Authority’s Specialty Nurse Recognition Scheme Certificate / recognised in-service training for at least 80 hours;

OR

c) a Fellow of the Hong Kong Academy of Nursing (“HKAN”) or equivalent;

*Recognised in-service training should be **specialty training** with **structured content** and **clear learning outcomes**, and have **interaction** as well as **assessment components**.*

AND

d) possessed six years of full time post-registration nursing experience immediately prior to his/her application in which at least the most recent four years must be serving in the related specialty area

(Nursing Council of Hong Kong, 2021)

**Pathway to  
Membership and  
Fellowship in Specialty  
Nursing**  
(with effect from May 2021)

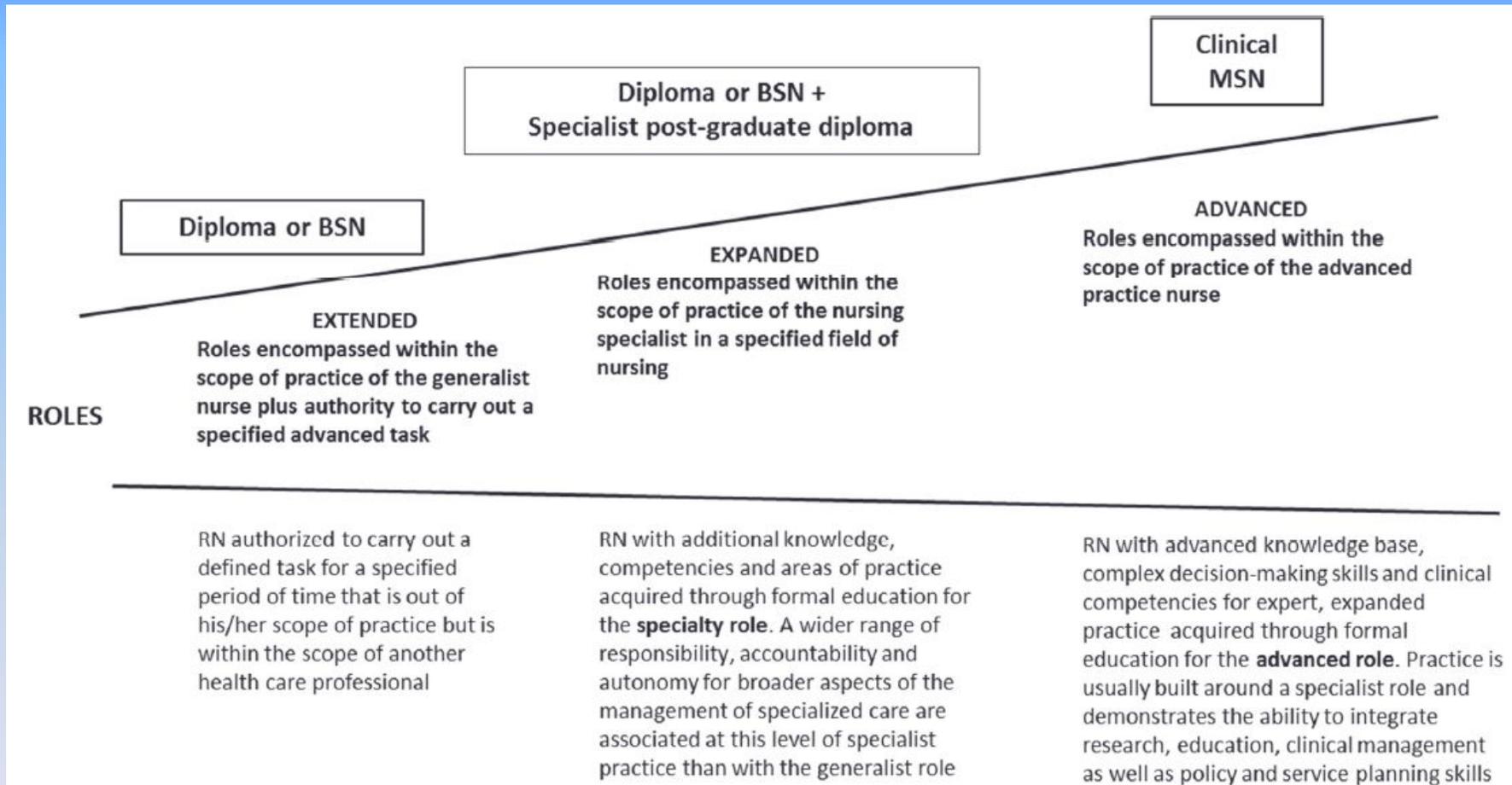
**Fellow Member of the HKANM**

- 18. Recommended by **2** Fellows of the Academy College of the related specialty
- 17. Passed the assessment stipulated by the Academy College of the related specialty

- 16. Completed the self-declaration of criminal conviction or professional misconduct\*
- 15. Demonstrated significant contributions to nursing practice or service development
- 14. Achieved **60** CNE points within the recent **3**-year cycle, with **45** points relating to the specialty
- 13. Completed the clinical log-book
- 12. Completed additional **250** hours of guided clinical practice
- 11. Accumulated **5** years of experience working in the specialty in recent **7** years
- 10. Passed the Certification Examination offered by the Academy College of the related specialty
- 9. Being an Ordinary Member of the HKANM and the Academy College of the related specialty
- 8. Possessed RN/RM registration in Hong Kong with a valid practising certificate

**Ordinary Member of HKANM and Academy College of the related specialty**

- 7. Completed the self-declaration of criminal conviction or professional misconduct\*
- 6. Showed satisfactory performance at admission interview conducted by the related Academy College
- 5. Completed **250** hours of #guided clinical practice at any clinical practice site recognized by the related Academy College
  - #Guided clinical practice includes:
    - i) Experiential learning with mentor guidance at local clinical specialty departments;
    - ii) Practicum at work/non-work places with mentors from local clinical specialty departments under university/tertiary institution programs
    - iii) Practicum at work/non-work places with mentors from local clinical specialty departments under the HA PRCC Program (only the part to be recognized by the related Academy College)
- 4. Completed **500** theoretical hours in advanced practice certification program, with a minimum of **300** hours at postgraduate level and the remaining hours being recognized by the related Academy College
- 3. Obtained a master's or higher degree in Nursing or healthcare related discipline after RN/RM registration
- 2. Accumulated **4** years of experience working in the specialty in recent **6** years
- 1. Completed RN/RM registration in Hong Kong with a valid practising certificate



**Fig. 2. Continuum of nursing specialist practice**

BSN: Bachelor of Science in Nursing, MSN: Master of Science in Nursing, RN: registered nurse

*(World Health Organization. Regional Office for the Eastern Mediterranean. (2020). A regional guide to the development of nursing specialist practice. World Health Organization. Regional Office for the Eastern Mediterranean. <https://apps.who.int/iris/handle/10665/348128>. License: CC BY-NC-SA 3.0 IGO)*

# Levels of Nursing Specialist Practice

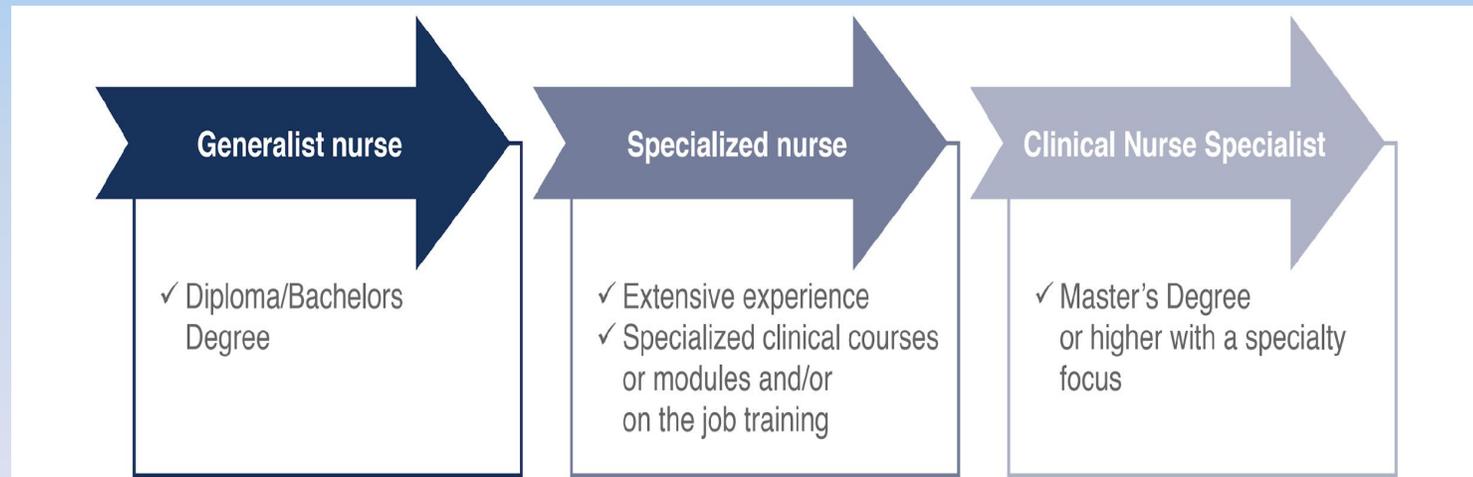
## Level of specialization

- **Extended**-- Registered Nurse
- **Expanded** -- Registered Nurse Specialist
- **Advanced** -- Registered Advanced Practice Nurse

(WHO, 2020)

# Requirements to Practice as a CNS

This progression provides recognition of the foundation of specialized clinical expertise based on the foundation of a generalist nursing education.



**Figure 8. Progression from Generalist Nurse to Clinical Nurse Specialist**

The Clinical Nurse Specialist and Nurse Practitioner are **two types** of APNs **most frequently identified internationally**

*(International Council of Nurses, 2020 )*

# Worldwide Reasons for Developing ANP

Examples by countries	US	Australia	Singapore	England	Japan	Poland	Hong Kong
Physician shortage	√	√		√	√	√	
Quality/continuity of care improvement	√		√	√	√	√	
Limited access to healthcare, especially primary care	√	√		√	√	√	
Health cost-containment pressure	√			√	√	√	
Healthcare needs shift		√		√	√	√	
Demand for professional development		√	√	√	√		
Retaining nurses in clinical practice			√				

(Kleinpell et al., 2022; Parker & Hill, 2017; Schober, 2016; Xu et al., 2022)

Highlights of activities covering 00:00-23:59 on 02 Jan 2020 are set out below:  
 二〇二〇年一月二日 0 分至 23 時 59 分的重點數據如下：

Cluster 醫院聯網	Hospital 醫院	No. of A&E first attendances 急症室首次 求診人次	No. of inpatient admissions to Med via A&E 經急症室入內科人次	Medical inpatient bed occupancy rate at midnight 內科住院病床 於午夜時的佔用率	Paediatrics inpatient bed occupancy rate at midnight 兒科住院病床 於午夜時的佔用率
HA Overall 醫院管理局公立急症室醫院		*6191	#998	114%	72%
Hong Kong East 港島東	Pamela Youde Nethersole Eastern Hospital 東區尤德夫人那打素醫院	418	92	112%	78%
	Ranchoe & Tang Shun Kin Hospitals 耀安及新華醫院	198	36	95%	—
Hong Kong West 港島西	Queen Mary Hospital 瑪嘉烈醫院	358	78	111%	64%
Kowloon Central 九龍中	Kwong Wah Hospital 廣華醫院	295	71	112%	61%
	Queen Elizabeth Hospital 伊利沙伯醫院	606	78	126%	80%
Kowloon East 九龍東	Tseung Koon O Hospital 葵涌醫院	—	—	—	—
	United Christian Hospital 基督教聯合醫院	—	—	—	—
	Carmel Hospital 明德醫院	—	—	—	—
Kowloon West 九龍西	North District Hospital 北大醫院	—	—	—	—
	Princess Margaret Hospital 瑪嘉烈醫院	—	—	—	—
	Yau Chi Fat Hospital 仁濟醫院	—	—	—	—
	Alice Ho Mui Lin Hospital 維多利亞醫院	—	—	—	—
New Territories East 新界東	North District Hospital 北大醫院	—	—	—	—
	Prince of Wales Hospital 威爾斯親王醫院	—	—	—	—
New Territories West 新界西	Tuen Mun Hospital 屯門醫院	—	—	—	—
	Tuen Mun Hospital 屯門醫院	—	—	—	—

Note: Above figures are provisional and subject to further updates.  
 註：上述數據為初步數字，日後可能有作更新。



From CSD (audited)	Health Expenditure – Operating expenditure (In Million)	Total Government Expenditure (In Million)	% in total government expenditure	
1990	2,274	85,557	2.66	
1995	18,370	183,158	10.03	
1997	24,040	194,360	12.37	
			12.12	
			12.12	
			11.66	
			11.22	
			11.76	
			11.90	
			11.78	
Inflation	8.60%	7.50%	8.20%	8.80%
Hong Kong Inflation Rate	2.88%	1.57%	1.88%	2% (Sep)



[https://www.healthbureau.gov.hk/en/press\\_and\\_publications/otherinfo/210500\\_amendments\\_mro/index.html#:~:text=Over%20the%20years%2C%20Hong%20Kong,\(2.5\)%2C%20the%20United%20States](https://www.healthbureau.gov.hk/en/press_and_publications/otherinfo/210500_amendments_mro/index.html#:~:text=Over%20the%20years%2C%20Hong%20Kong,(2.5)%2C%20the%20United%20States)

Census and Statistics Department: [https://www.censtatd.gov.hk/en/web\\_table.html?id=194&download\\_excel=1#](https://www.censtatd.gov.hk/en/web_table.html?id=194&download_excel=1#)

# Types of activities of APN

Two broad types of activities of APN can be distinguished:

- **A substitution of tasks (extended role):** certain tasks formerly carried out by doctors
- **A supplementation of tasks (new ± extended role):** new services not previously provided doctors

# Example: Neuroscience Acute Care Nurse Practitioner in US

## **Clinical procedures**

- Intubations
- Arterial lines
- Central lines
- Lumbar puncture/drains
- CSF manipulation
- Cranial monitoring device placement and removal
- Shunt reprogramming

Susan Yeager, WFCCN International Congress, 2016

**TABLE 1. Baseline Characteristics of Patients and the Performance of Both Groups Regarding Insertion of Arterial Catheters**

Arterial Catheters	Advanced Practice Provider	Medical Resident	p
Total numbers	478	355	
Radial artery, n (%)	317 (66)	265 (74)	0.017
Brachial artery, n (%)	73 (15)	41 (12)	0.14
Femoral artery, n (%)	88 (18)	51 (14)	0.14
Diversion to other sites than radial artery, n (%)	161 (34)	92 (26)	0.048
Systolic blood pressure (mm Hg), median (IQR)	110 (90–125)	110 (90–130)	0.04
Vasopressor use, n (%)	158 (33)	93 (26)	0.095
Ultrasound use, n (%)	53 (11)	60 (17)	0.02
Palpability, n (%)	346 (72)	293 (82)	< 0.001
No. of attempts before success, median (IQR)	1.30 (1.0–1.82)	1.53 (1.0–2.27)	< 0.0001
Success rate at first attempt, n (%)	340 (71)	200 (54)	< 0.0001
Complication rate, n (%)	36 (7.5)	40 (11)	0.09
Acute obstruction arterial vessel, n (%)	0 (0)	1 (< 1)	NA
Hematoma, n (%)	25 (5)	30 (8)	0.91
Bleeding, n (%)	0 (0)	2 (< 1)	NA
Other, n (%)	11 (2)	7 (2)	NA
Need for direct supervision, n (%)	12 (2.5)	77 (22)	< 0.001

IQR = interquartile range, NA = not assessed because of low numbers.

**Reference:**

Kreeftenberg, H. G., Aarts, J. T., Bindels, A., van der Meer, N., & van der Voort, P. (2020). Procedures performed by advanced practice providers compared with medical residents in the ICU: A prospective observational study. *Critical Care Explorations*, 2(4), e0101. <https://doi.org/10.1097/CCE.0000000000000101>

**TABLE 2. Baseline Characteristics of Patients and the Performance of Both Groups Regarding Insertion of Central Venous Catheters**

Central Venous Catheters	Advanced Practice Provider	Medical Resident	p
No. of catheters	247	177	
Femoral vein, n (%)	165 (67)	110 (62)	0.38
Subclavian vein, n (%)	30 (12)	15 (9)	0.30
Jugular vein, n (%)	52 (21)	52 (29)	0.06
Overall			
Ultrasound, n (%)	137 (56)	117 (66)	0.035
No. of attempts before success, median (IQR)	1.20 (1.0–1.71)	1.33 (1.0–1.86)	< 0.005
Success rate at first attempt, n (%)	200 (81)	123 (70)	< 0.005
Total complication rate, n (%)	15 (6)	12 (7)	1.0
Arterial punctures, n (%)	7 (3)	5 (3)	1.0
Major complication rate, n (%)	2 (1)	2 (1)	NA
Pneumothorax	1	1	NA
Bleeding	0	1	NA
Hematoma	0	3	NA
Arrhythmia + reanimation	0	1	NA
Catheter wrong route	1	0	NA
Other	2	2	NA
Supervision, n (%)	38 (15)	95 (54)	< 0.001
Providing supervision, n (%)	47 (19)	9 (5)	< 0.001
Femoral venous access, n (%)			
No. of catheters	165	110	–
Ultrasound	86 (52)	69 (63)	0.11
Success rate at first attempt	130 (79)	75 (68)	0.05
Arterial punctures	7 (4)	3 (3)	0.74
Major complication rate	0 (0)	1 (1)	–
Subclavian venous access, n (%)			
No. of catheters	30	15	–
Ultrasound	2 (6.7)	3 (6.7)	–
Success rate at first attempt	25 (83)	8 (53)	0.07
Arterial punctures	0 (0)	0 (0)	NA
Major complication rate	1 (3)	1 (7)	NA
Jugular venous access, n (%)			
No. of catheters	52	52	–
Ultrasound	49 (94)	47 (90)	0.71
Success rate at first attempt	45 (87)	40 (77)	0.31
Arterial punctures	1 (2)	2 (4)	NA
Major complication rate	1 (2)	1 (2)	NA

IQR = interquartile range, NA = not assessed because of low numbers.

**TABLE 3. Baseline Characteristics of Patients and the Performance of Both Groups Regarding Intubations**

Intubations	Advanced Practice Provider	Medical Resident	p
No. of intubations	143	115	–
Video laryngoscope, n (%)	101 (71)	78 (68)	0.73
Direct laryngoscope, n (%)	38 (27)	35 (30)	0.49
Video laryngoscope with gum-elastic bougie, n (%)	4 (3)	2 (2)	NA
Supervision, n (%)	91 (73)	115 (100)	< 0.0001
Provided supervision, n (%)	14 (10)	0 (0)	0.01
Cormack-Lehane > 1, n (%)	44 (31)	33 (30)	0.82
Emergency intubation, n (%)	128 (91)	94 (82)	0.07
Nurse satisfaction teamwork, median (IQR)	4.85 (4.34–5.0)	4.73 (4.22–5.0)	0.02
Complication rate, n (%)	13 (9)	12 (10)	0.88
Complications, n (%)			
Aspiration	1 (< 1)	1 (< 1)	NA
Esophageal intubation	4 (3)	1 (< 1)	NA
Hemodynamic collapse	2 (1)	0 (0)	NA
> 1 attempt	6 (4)	8 (7)	NA
Dislocation of the tube	0	1 (< 1)	NA

IQR = interquartile range, NA = not assessed because of low numbers.

**Reference:**

Kreeftenberg, H. G., Aarts, J. T., Bindels, A., van der Meer, N., & van der Voort, P. (2020). Procedures performed by advanced practice providers compared with medical residents in the ICU: A prospective observational study. *Critical Care Explorations*, 2(4), e0101. <https://doi.org/10.1097/CCE.0000000000000101>

**TABLE 4. Characteristics of Other Procedures**

	Advanced Practice Provider	Medical Resident	p
Pleural drainage			
No. of procedures	10	7	–
Interhospital transport			
No. of procedures	66	54	–
Electrical cardioversion			
No. of procedures	15	14	–
No. of supervised procedures, n (%)	4 (27)	11 (79)	0.059
Changing tracheostomy cannulas			
No. of procedures	4	2	–

# Supplementation (new ± extended role)

- Universal health coverage
- ↑ efficiency of health, resources distribution & cost-effectiveness of care ⇒ ↓ healthcare costs
  - Nurse Clinic
  - Private business- entrepreneur
  - New model of care

# Voluntary Scheme on Advanced & Specialized Nursing Practice: **Approved applicants = 3931** as at March 2024

	Australia	New Zealand	UK	Singapore	USA	Canada
<b>Nurse practitioners</b>	Over 2250 Australian College of Nurse Practitioners . (2024).	702 Nursing council of New Zealand. (2023).			more than 385,000 in 2022 (American Association of Nurse Practitioners, 2024)	7,400 in 2021 (Canadian Nurses Association, 2021)
<b>Advanced Nurse Practitioners</b>			3,100 William Palmer, S. J., Louella Vaughan. (2023).			
<b>Advanced Practice Nurses</b>				314 (Singapore Nursing Board)		
<b>Clinical Nurse Specialist</b>	Information updated in April 2024				Almost 90,000 in 2022 (Pamela Moss, 2022)	

# Singapore – Advanced Practice Nurse

Number of Advanced Practice Nurse	<b>321</b> (2022) from Singapore Nursing Board
Requirement	<ul style="list-style-type: none"><li>• <b>Clinically focused Master</b> level nursing (MN) programme comprising of at least <b>500 hours</b> of supervised clinical practicum</li><li>• <b>Advanced practice-oriented modules</b> including: <b>Advanced Health/Physical Assessment; Advanced Physiology &amp; Pathophysiology ; Advanced Pharmacology</b></li><li>• Passed MN OSCE</li><li>• <b>One year of supervised clinical practice</b> to allow consolidation of knowledge, skills and practice expected of an APN</li></ul>
Specialties	Four specialties: <ul style="list-style-type: none"><li>• Acute</li><li>• Medical/ surgical care</li><li>• Community</li><li>• Mental health</li></ul>

# Application Process for Certification as an APN

- **Educational Requirement**
- Clinically focused Master level nursing programme comprising of at least 500 hours of supervised clinical practicum
- Adv practice oriented modules including:
  - Advanced Health/Physical Assessment
  - Advanced Physiology & Pathophysiology
  - Advanced Pharmacology
- **Apply**
- Within one year of conferment of Master's degree
- Define area of clinical practice & have a named clinical supervisor
- Apply online and upload the following certified true copies of required forms
  - Identification,
  - Academic transcripts & certificates
- Curriculum vitae
- Request for verification of original transcripts of nursing education from nursing universities & *verification of Registration*
- Pay applicable fees

Application for  
Certification

- One year of supervised clinical practice to allow for consolidation of knowledge, skills and practice expected of the APN
- Key Features include
  - Minimum 1280 hours (32 weeks) Clinical hours in direct patient care at the advanced level
  - Approved clinical areas in the specialty area concerned that allows for complete spectrum of practice in that specialty
  - Named Clinical Supervisor who should be a medical specialist (or an expert APN)
  - Formative Assessment
  - Mini CEX
  - Chart Stimulated Recall
  - Journal Club Teaching
  - Clinical Logs

Internship on  
Provisional  
Certification

- Applicant submits portfolio consist of
  - completed formative assessment
  - Recommendations from clinical supervisor, Clinical Head-of-Department and Director of Nursing
- Applicant apply for certification examination
- Applicant will be given full certification when she/he pass the certification examination

End of Internship

# Opportunities

- New Development in ANP
  - Like Nurse Practitioner type title
  - Not only have extended & expanded roles but also have *ADVANCED* role
  - New category of salary & ranking
  - Social recognition
  - Recruitment & retention
- ↑ accessibility, affordability & continuity of care
- Contribution to the cost-containment in a heavily subsidized healthcare system

# Challenges

- Blurred definitions between specialty nursing & advanced practice nursing
- Scope of practice will have to be agreed by nurses, other healthcare professions, public and the government
- Development of the ANP program
- Objective criteria for program accreditation to be developed
- Competency assessments
- Regulation & registration: collaborative efforts of government, public and nurses

**THANK YOU!**

International Forum on Quality and Safety in Healthcare, Hong Kong

# **Impact of Advanced Nursing Practice on Patient Outcomes**

**Suzanne So-Shan MAK**

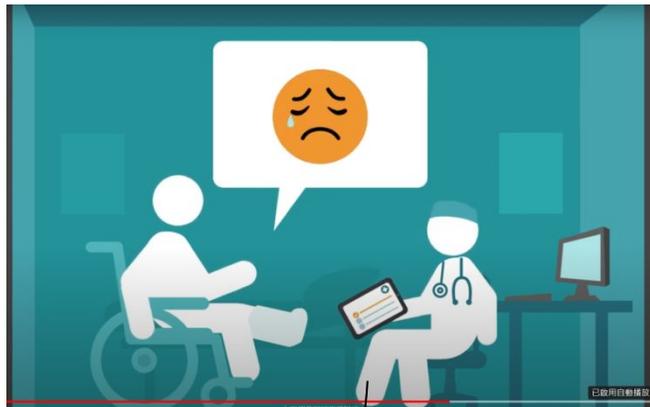
**RN, MN, FHKAN (Medicine-Oncology), FHKCHSE, Fellow UICC**

# What are Outcomes?

- End result of care
- Measurable change in health status or behavior
- A desired condition
- A measurable patient goal

# Patient Outcome

- “A change in a patient’s current and future health status that are attributable to antecedent care”



*(Donabedian, 1980)*



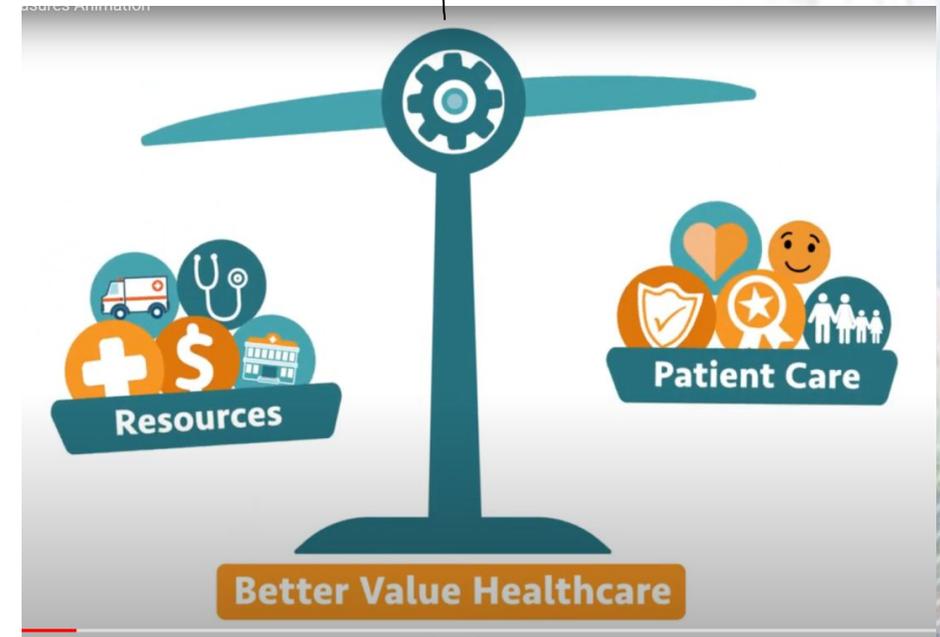
# Why do we need outcome data ?

- Accountability
- Regulatory bodies
- Evidence Based Practice/ Guidelines
- Consumer demand
- Policy driven
- Societal perspective



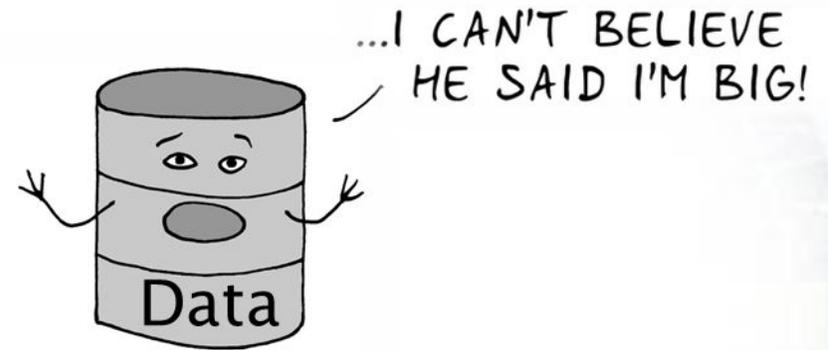
Task-based  
practice

**Outcome**-bas  
ed practice



# What issues in defining nursing?

- Benchmark data
  - Not sensitive to nursing care



- Team practice

– Whole



vs.

individual



- Bundling costs and resources

– All inclusive

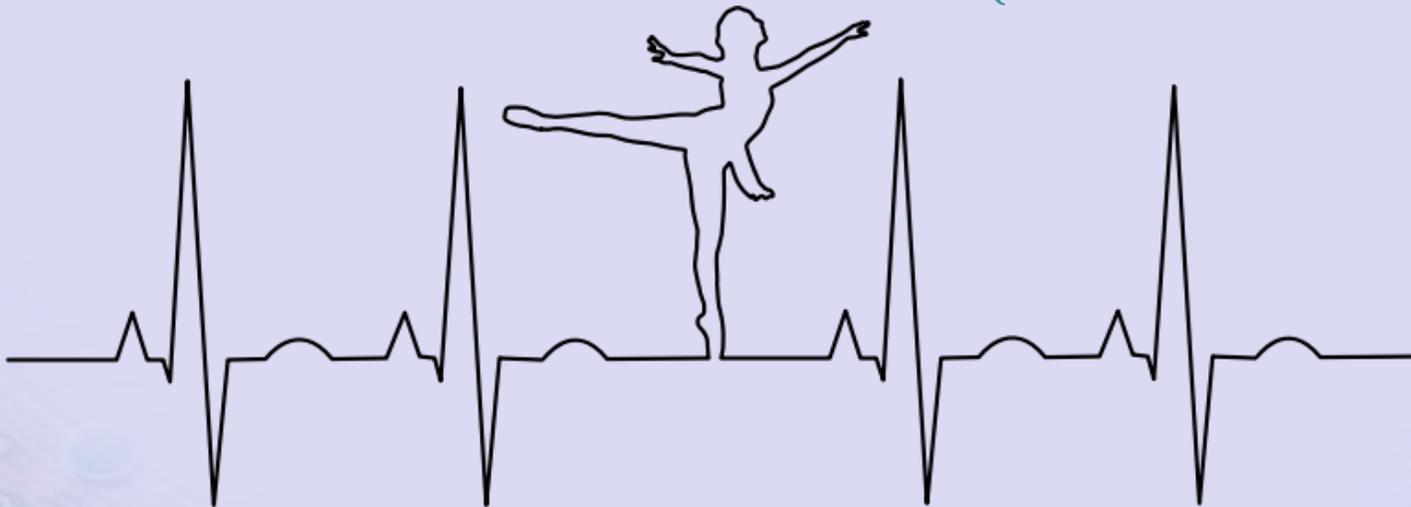


**How do we define advanced nursing practice?**

# Definition of Advanced Nursing Practice

- “Advanced Practice Nurse is a registered nurse who has acquired the **expert knowledge base, complex decision-making skills and clinical competencies for expanded practice**, the characteristics of which are shaped by the context and/ or country in which s/he is credentialed to practice.”
- Advanced nursing practice roles are **safe, effective** and **well received** by clients.

*(International Council of Nurses, 2020)*



# Examples of Early Advance Practice Nursing Outcome Research

- Florence Nightingale: Modern Nursing
  - First outcome data
  - First nurse managed hospitals
  - First environmentalist
  - First public health nurse
- Do No Harm
- Cheaper to keep well than cure illness!

# American Nurses Association (ANA) Congress of Nursing Practice, 1974

## Definitions of Advanced Practice Roles:

- Nurse Anesthetist
- Nurse Midwife
- Clinical Nurse Specialist
- Nurse Practitioner

# Landmark Outcomes Study

Committee of the Secretary of Health, Education, and Welfare Report, 1971

- Extending the scope of nursing practice. A report of the Secretary's Committee to study extended roles for nurses

*JAMA. 1972 May 29; 220(9):1231-5*

# Significant Conclusion

- Extending the scope of the nurse's role was essential to providing **equal access to health care for all consumers**.
- Need to establish **innovative curricular designs** in health science centers with increased financial support for nursing education.
- Need to advocate for **commonality of nursing licensure and certification**, including a model nursing practice law suitable for national application.
- Need for research related **cost-benefit analyses** and attitudinal surveys to assess impact of new role.

# The Problem

- An International Survey among 18 countries, conducted by INP/APNN Network of ICN identified:
  - 14 different titles existed for the APN role
  - Majority (75%) had formal recognition of APN role
  - 58% had formal APN educational programs
  - 52% had licensure requirements, showcasing developing acknowledgement of the APN as an official advanced role for nursing practice

## Countries of Respondents in the NP/APN Survey (n=33)

- |                                       |                       |
|---------------------------------------|-----------------------|
| ■ Argentina: 1                        | ■ Japan: 2            |
| ■ Australia: 25                       | ■ Netherlands: 1      |
| ■ Botswana: 2                         | ■ New Zealand: 1      |
| ■ Canada: 5                           | ■ Nigeria: 2          |
| ■ China/People's Republic of China: 2 | ■ Oman: 1             |
| ■ England/UK: 6                       | ■ Pakistan: 1         |
| ■ Ethiopia: 1                         | ■ Portugal: 1         |
| ■ Fiji: 1                             | ■ Saudi Arabia/KSA: 1 |
| ■ Finland: 1                          | ■ Singapore: 1        |
| ■ France: 1                           | ■ South Africa: 7     |
| ■ Grenada: 1                          | ■ South Korea: 1      |
| ■ Hong Kong: 1                        | ■ Spain: 2            |
| ■ India: 2                            | ■ Switzerland: 2      |
| ■ Ireland: 4                          | ■ Taiwan: 2           |
| ■ Italy: 1                            | ■ Tanzania: 1         |
| ■ Jamaica: 1                          | ■ Thailand: 4         |
|                                       | ■ USA: 6              |

*International Council of Nursing, International Nurse Practitioner/ Advanced Practice Nursing Network (2008). An International Survey on Advanced Practice Nursing: Education, Practice & Regulatory Issues*

# Research 50 years later

- Ambiguity over role definition still exists
- Historically lack of unity in requirements for entry into programs
- Variations in degree received
- Debate over setting for and length of program
  - certificate, master, doctoral
- Scope of practice



**How are ANPs able to measure and articulate the impact of their care on patient outcomes?**

# 3 Major Approaches for Outcome Measurement

Outcome  
research

Outcome  
management

Outcome evaluation



# Outcome Research

- a type of controlled, empirical assessment of the effect of a given intervention, product, or technology on patient, cost, or service outcomes.

*(Polit & Beck, 2017)*

- “... seeks to understand the end results of particular healthcare practices and interventions ... By linking the care people receive to the outcomes they experience, outcomes research has become the key to developing better ways to monitor and improve quality of care”

*(Agency for Healthcare Research and Quality , 2013)*

# Research Designs

- RCT
- Quasi-Experimental
- Nonexperimental/ Observational
- Descriptive
- Correlation
- Case-Control & Cohort
- Ex Post Facto
- Qualitative
- Mixed Methods

# Challenges: Outcome Research vs. Nursing Practice

- Scientific outcome studies are expensive and time-consuming
- Response bias / influence of confounding variables
  - Multiplicity of individual's health problems
  - Nonclinical characteristics
  - Multiplicity of providers
- Difficulties in connecting study purpose and research design
  - Patient autonomy
  - Time-delay between intervention and expected outcome
  - Lack of baseline measurement

# Theoretical Basis of Outcomes Research

## *Quality of Care Model*

- Structure
- Process
- Outcomes

*(Donabedian, 1987, 2005)*

# Research Utilization and EBP

## Common elements of all EBP models

- 1) identify a clinical problem,
- 2) gather evidence,
- 3) critique and synthesize evidence,
- 4) implementing practice change,
- 5) evaluate the impact of practice change on outcomes

# Sample systematic review on APN impact & outcome

## - Improved Health

- Various systematic reviews of studies and RCTs measuring the role value of APNs
  - **↓ in systolic blood pressure.** *(Martinez-Gonzalez, Tandjung et al., 2014).*
  - **improved clinical outcomes** *(Tsiachristas et al., 2015).*
  - similar client outcomes as other providers *(Kilpatrick et al., 2014).*
  - **Delay in symptoms and physical impairment** for lung cancer clients *(Bryant-Lukosius, Cosby et al., 2015)*
  - **↓ in early urinary & GI symptoms, ↓ fatigue & better physical functioning** for clients receiving pelvic radiation *(Bryant-Lukosius, Cosby et al., 2015)*
  - **↓ in urinary symptoms and improved continence** for prostate cancer clients *(Bryant-Lukosius, Cosby et al., 2015)*
  - similar outcomes to physician-led follow-ups on a number of other factors, including anxiety, psychological well-being, quality of life, self-care, recurrence, and time to detect recurrence *(Bryant-Lukosius, Cosby et al., 2015)*
  - **improved two-year survival rates** for older clients with advanced cancer
  - **↓ in the odds of being hospitalized** *(Prince-Paul, Burant, Saltzman, Teston, & Matthews, 2010)*

# Sample systematic review on APN impact & outcome

## - Improved Care

- Various systematic reviews of studies and RCTs measuring the role value of APNs
  - □ **client satisfaction**, a ↓ **hospital admissions**, and a ↓ **mortality** as compared with physician-led care (*Martinez-Gonzalez, Djalali et al., 2014*).
  - **improved provision of client information** (duration of their disease, symptom relief and options for self management) and **improved client satisfaction** (*Tsiachristas et al., 2015*)
  - ↓ **avoidable transfers to emergency department**; □ **client & family caregiver satisfaction** (*Morilla- Herrera et al., 2016*).
  - □ **access** to the hospital's cardiac surgery department (*National Expert Commission, 2012*).
  - □ **client satisfaction** rates with APN-led care compared physicians (*Martinez-Gonzalez, Djalali et al., 2014; Swan et al., 2015; Tsiachristas et al., 2015; Morilla-Herrera et al., 2016*).
  - **equivalent or better quality care** across a wide range of care settings and for a variety of client groups (*Kilpatrick et al., 2014; Martinez-Gonzalez, Tandjung et al., 2014; Swan et al., 2015; Tsiachristas et al., 2015*)
  - ↓ **wait times** in emergency departments; ↓ length of **hospital stay**; ↓ **readmission rates** and complications; **Improved adherence** to evidence-based clinical guidelines; ↑ **client perception of care continuity**; ↑ interprofessional care (*Hurlock-Chorostecki and McCallum, 2016*)

# Sample systematic review on APN impact & outcome

## - Lower Costs

- Various systematic reviews of studies and RCTs measuring the role value of APNs
  - **lower health service costs** of NP in primary care (*Martin-Misener et al., 2015b*)
  - **equivalent or ↓ costs**, while maintaining **equal or better outcomes**, than compared with physicians (*Swan et al., 2015*).
  - **↓ costs** are associated with NP and CNS roles in ambulatory/community settings (*Kilpatrick et al., 2014; Martin-Misener et al., 2015b*).
  - In hospitals, NPs **reduce costs** through shorter hospital lengths of stay and by preventing hospital readmissions (*Donald et al., 2015*).

# Findings: systematic reviews on APN impact & outcome

- Positive outcomes of APN in various practice settings:
  - **Primary care** (*Maier et al., 2017; Martin-Misener et al., 2015a*)
  - **Long-term care** (*Donald et al., 2013; Harrington, 2016*)
  - **Cancer care** (*Bryant-Lukosius, Cosby et al., 2015; Stahlke, Rawson, & Pituskin, 2017*)
  - **Models of transitional care that cut across acute, ambulatory and home care settings** (*Bryant-Lukosius, Carter et al., 2015; Donald et al., 2015*)

# Findings: systematic reviews on APN impact & outcome

- Results are **consistent across varied populations** and from low birth weight babies to frail, older adults.
- Positive impact of APN roles may be most prominent for **high-risk, high-cost, high-volume client populations** requiring complex acute and chronic disease management care.
- A meta-synthesis of the large number of systematic reviews
  - outcomes of APN roles evaluations are **as good, or better than,** those providing similar levels of care, usually physicians

*(Maier et al., 2017)*

## Limitations in most APN Studies

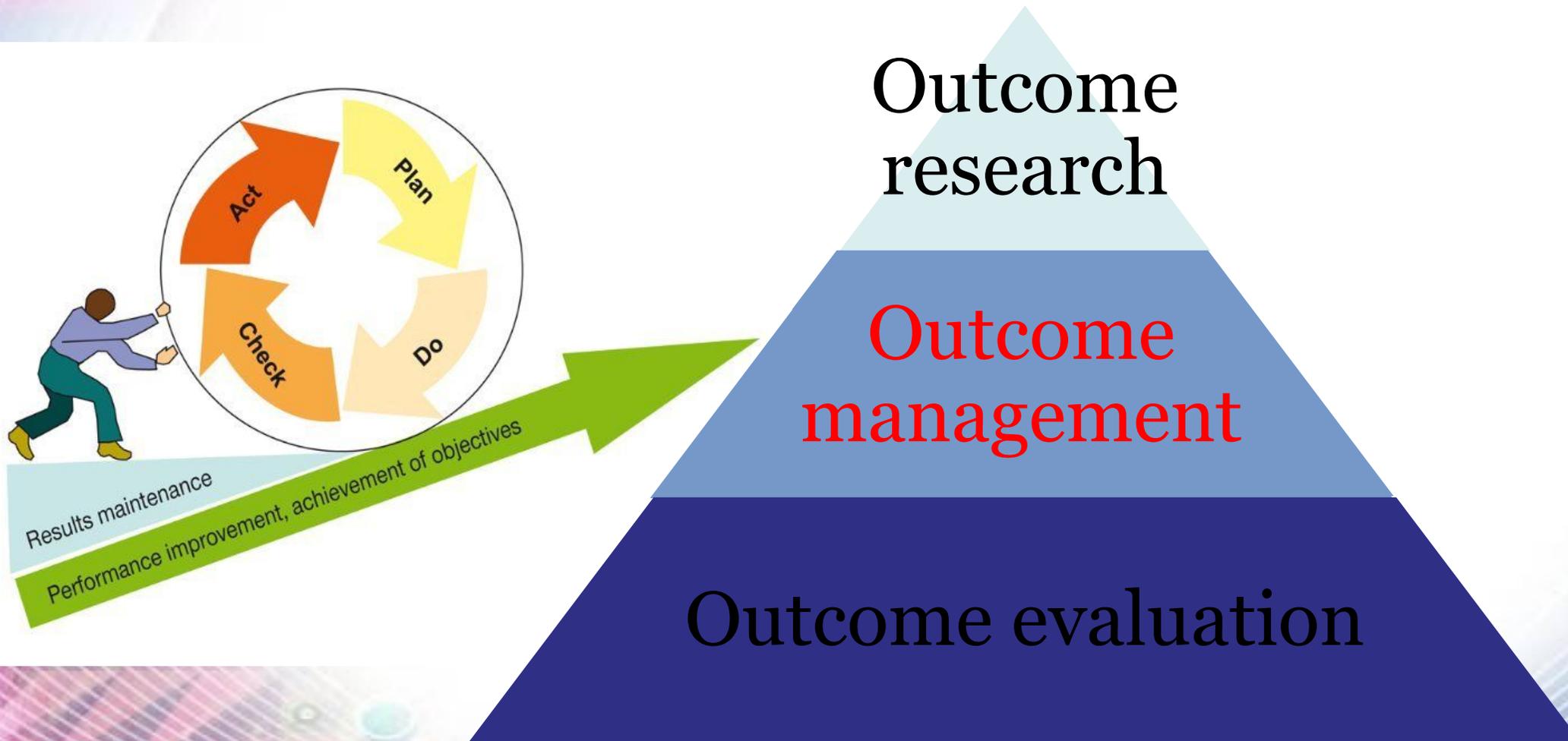
- Lack of methodological rigor
- Use of variable measurement strategies
- Lack of specific health related outcomes
- Use of physician as comparative group
- Heterogeneous outcomes
- Lack of economic analysis

# Challenges: systematic reviews on APN impact & outcome

- Scarcity of meta-analysis to present the combined effect estimates on APN roles' impact in different care settings
- Not fair comparison due to poor definition of ANP scope, different level of theoretical knowledge & clinical competence across studies
- Problematic application of research findings to a population other than that studied
- Limited evidence to determine APN roles' cost effectiveness due to paucity of true economic evaluations

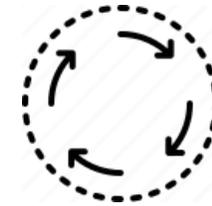
*(Marshal et al., 2015)*

# 3 Major Approaches for Outcome Measurement



# Quality Improvement Process

- **Develop indicators** to assess progress toward certain predefined goals and reviewing performance against these measures
- Evaluate work processes in a **cyclic fashion**
- **Benchmark** practice against established indicators
- Provide a means to continually evaluate and improve established practice **rapidly**
- Reported only **internally**



*(McLaughlin & Kaluzny,  
2013)*

# Quality Improvement Models

- Donabedian's Model of Quality Health Care
- Total Quality Management and Continuous Quality Improvement (Deming)
- PDCA (plan-do-check-act)
- Six Sigma
- Toyota Lean
- Root Cause Analysis
- Failure Modes and Effects Analysis (FMEA)

# Structure-Process-Outcome Framework for Quality Assessment in Nursing

(Donabedian's Model of Quality Health Care)



## Structures of Care

**Definition:** **Setting** in which care takes place including the organizational resources & characteristics

**Nurse Sensitive Examples:** nurse characteristics; nurse staffing; care delivery model; organizational accreditation & certifications



## Processes of Care

**Definition:** **Actual activities that constitute care** including diagnosis, treatment, rehabilitation, prevention, patient education

**Nurse Sensitive Examples:** nurse surveillance; education & counseling; discharge planning & coordination of care; assistance with ambulation; medication administration & monitoring

## Outcomes of Care

**Definition:** **End result** of processes of care including favorable and/or adverse changes in health status that can be attributed to health services

**Nurse Sensitive Examples:** self-care; health promoting behaviors; functional status; complications & AEs; symptom management; knowledge of disease & treatment; satisfaction; health-related QOL

# 3 Major Approaches for Outcome Measurement

Outcome  
research

Outcome  
management

Outcome evaluation



# Outcome Assessment & Measures

- Outcome Assessment
  - provides the **data** needed to support the effect of clinical decisions, care delivery processes, or targeted actions
- Outcome Measures
  - used to collect, analyze, and report **reliable and valid indicators**
    - Observation
    - Description
    - Quantification



# Challenges: Outcome Measures vs. Advanced Nursing Practice

- Relative **insensitivity** of outcomes
- **Complexity** of variables
- Outcomes can be influenced by **outside factors**
- Information about outcomes **not readily available**
- **Few lists of valid** effectiveness criteria and measurements



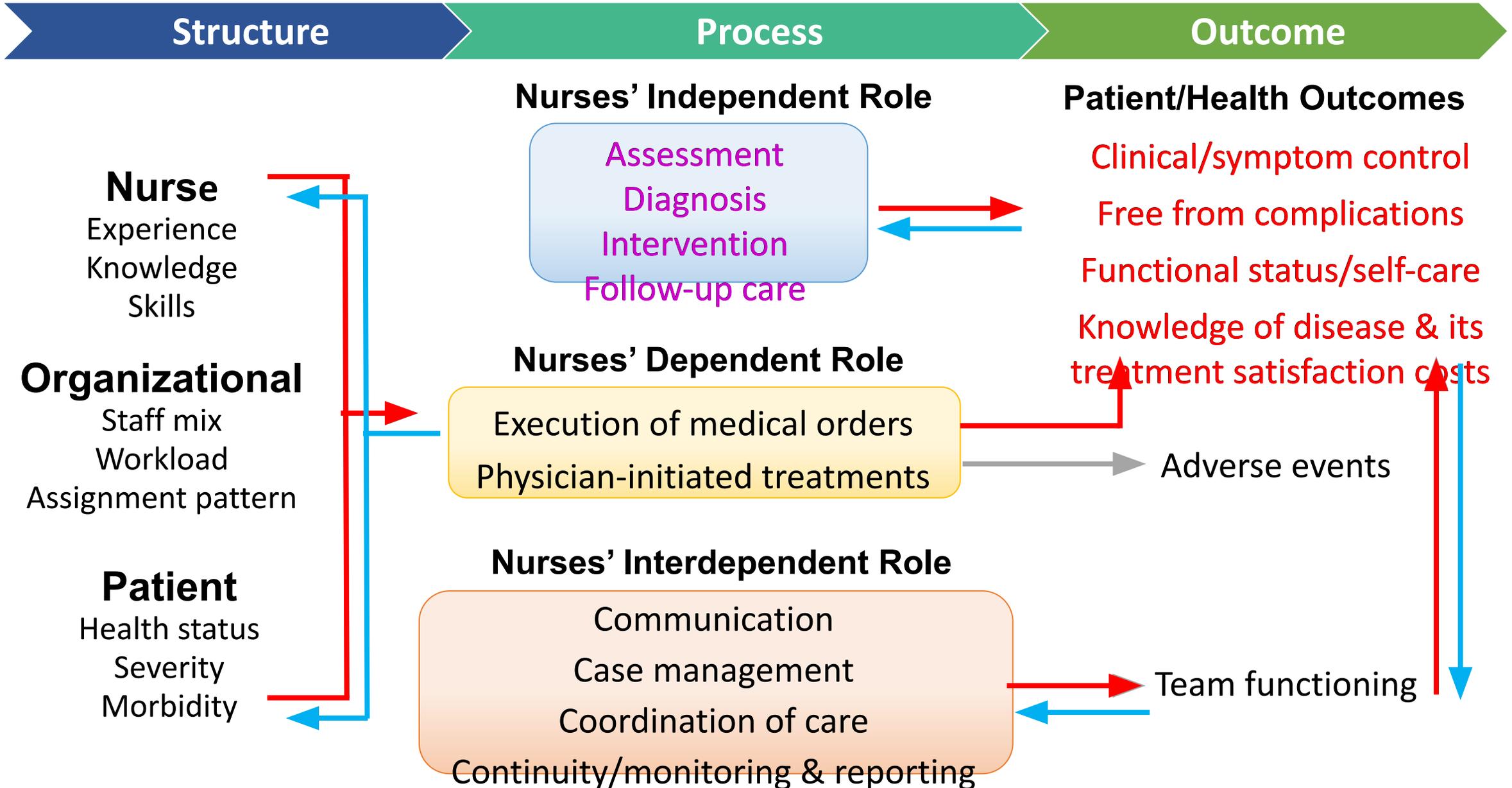
# Principles in Determining Outcome Measures

- Must be measurable
- Must relate to care process/ intervention
- Must be realistic



# What is Nursing/APN Sensitive Outcomes?

# Nursing Role Effectiveness Model *(Irvine et al., 1998)*



# Types of Outcomes

- Physiological
  - Heart rate
  - Weight
- Perceptual
  - Satisfaction
  - Symptom control
  - QOL
  - Well being
- Psychosocial
  - Attitude
  - Mood
- Cognitive
  - Knowledge
  - Understanding
- Functional
  - ADLs
  - ROM
- Fiscal
  - Cost
- Behavioral
  - Compliance
  - Motivation

# Role-Based Outcomes

- Clinic wait times
- Hospital length of stay
- Bed occupancy rate
- Timely discharge
- Cost

# Principles in Determining Outcome Measures

- Must be measurable
- Must relate to care process/ intervention
- Must be realistic
- Must be measured within accessible time span
- Must describe risk



# Clinical Outcomes

- Need to adjust for risk factors
  - Baseline status
  - Clinical status
  - Treatment
  - Setting
  - Environment



# Variables Affecting Patient Outcomes



- Socioeconomic factors
- Family support
- Age and gender
- Quality of care provided by other professionals and support workers

# Principles in Determining Outcome Measures

- Must be measurable
- Must relate to care process/ intervention
- Must be realistic
- Must be measured within accessible time span
- Must describe risk
- Must not be a great burden at data collection



# Data Collection

- Easy to obtain; specific to the APN role
- Be simplified through the generation of reports with proliferation of electronic health records and other electronic systems and databases
- Should limit to carefully selected role-sensitive indicators
- NO 'fishing in the data'



# Principles in Determining Outcome Measures

- Must be measurable
- Must relate to care process/ intervention
- Must be realistic
- Must be measured within accessible time span
- Must describe risk
- Must not be a great burden at data collection
- Chosen parameters must be accurate and specific to care



Outcome Measures	Conceptual Definition	Operational Definition	Calculation
<b>Severity of catheter-associated blood stream infection (CA-BSI) in hospital</b>	Number of patient CA-BSI defined as a BSI caused by an <u>organism not related to another infection when a central line in place for &gt; 48h</u> prior to blood culture	Number of CA-BSI per 1000 patient days	Number of CA-BSI x 1000/ number of inpatient days
<b>Patients knowledge regarding pain self-management</b>	Pre- and post-test scores of knowledge assessment test regarding pain self-management	Number of patients/percent of correct answers	Per patient: Number of correct answers/ the number of test items

**Some more challenges?**

**Opportunities?**

# Nursing Outcome Goals

- Often directed toward **cost containment**
- More hospital based, **less community based**
- Rarely directed toward understanding **scientific basis for clinical practice**
- Rarely examine **underlying relationship** between outcomes and care



# Beyond Comparative Value Outcomes of APNs

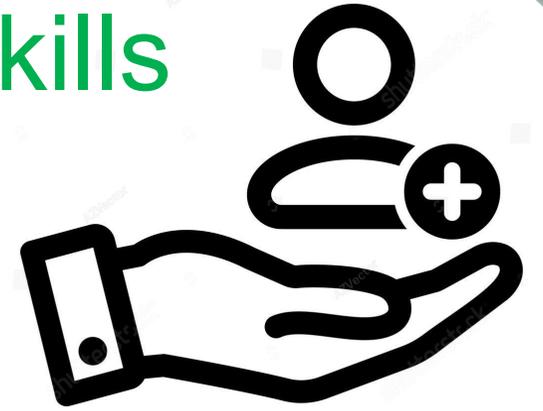
- Unique contributions of APNs
- Income
- “Value added”



*(Mundinger, 2000; Kyuen et al, 2000; Wong et al, 2000)*

# Example of APN Value Added Skills

- Health education integral to care
- Disease prevention/ health promotion
- Teaching/ counseling/ listening
- Coordination of care
- Community resource access
- Partnerships with patients/ families
- Holistic care in a family social context
- Added **‘nursing ingredient’** to APN care

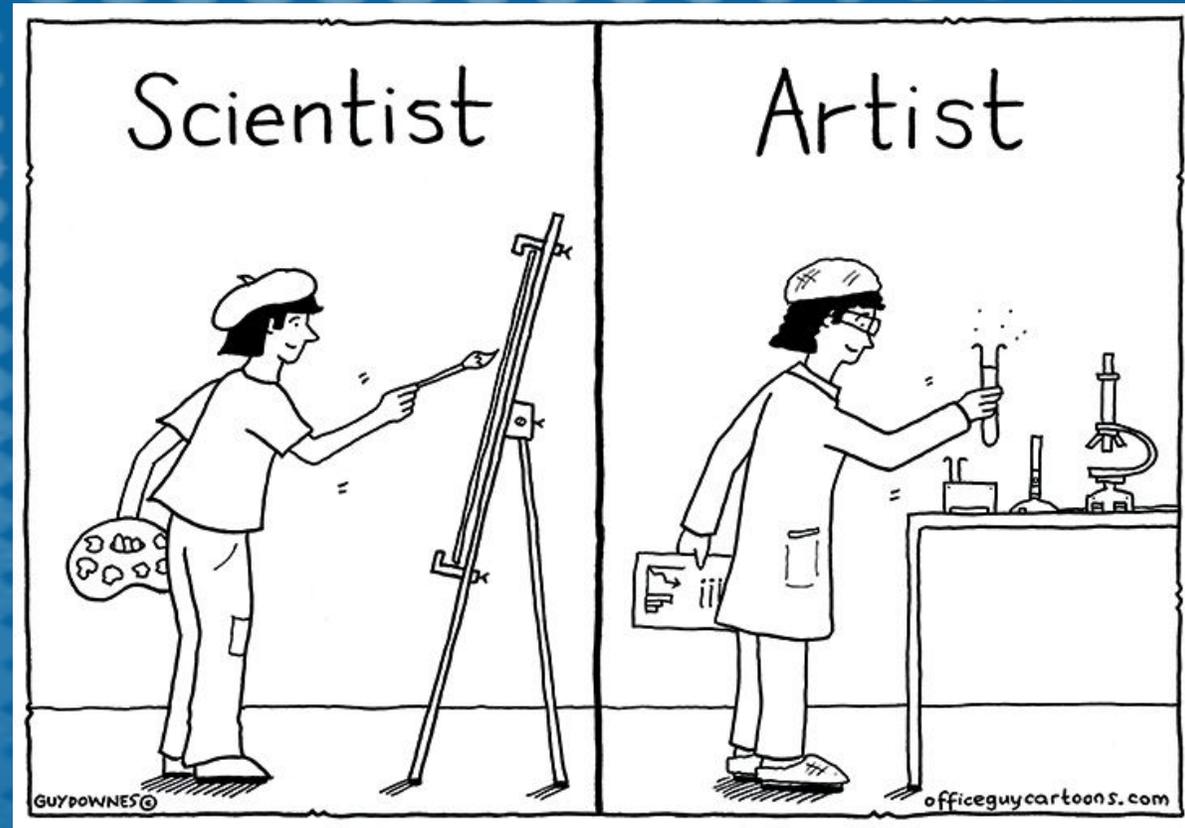


*(Pager & Conger, 2007)*

# Nurse Sensitive Outcomes of APN Practice – 10 Indicators *(Ingersoll et al 2000)*

- Patient satisfaction
- Symptom resolution/  
reduction
- Compliance/ adherence/  
cooperation
- Knowledge of patient/  
family
- QOL
- Perception of being well  
cared for
- Trust in provider
- Collaboration among  
providers
- Care provider  
recommendations
- Frequency/ type procedures  
ordered

How do we capture both the art and the science of high level caring at all levels of nursing?



# The Blended Art & Science of APN



- “How to measure, as Benner (1984) suggests, the **exquisite skill in clinical judgment** that comes from ‘**knowledge embedded in practice**’ which may be a deciding variable in APN care

*(Cunningham, 2000)*

- ‘**Contextual thinking**’ is used to denote the APN’s **high level of data synthesis**

*(Bourbonniere & Evans, 2002)*

# What is the Importance of Nurse Sensitive Outcomes?

- Demonstrate that nurses at all levels provide safe, quality, and cost effective care.
- Provide strong support for appropriate allocation of health care resources.
- Continue to measure the Art of Nursing as well as the Science of Nursing.
- Make Nursing Visible.



*Make Nursing Visible*

*Thank you*

# Competencies of nurse manager contributing to staff retention and quality of care

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**Pin Pin CHOI Sandy**

School of Nursing & Health Studies

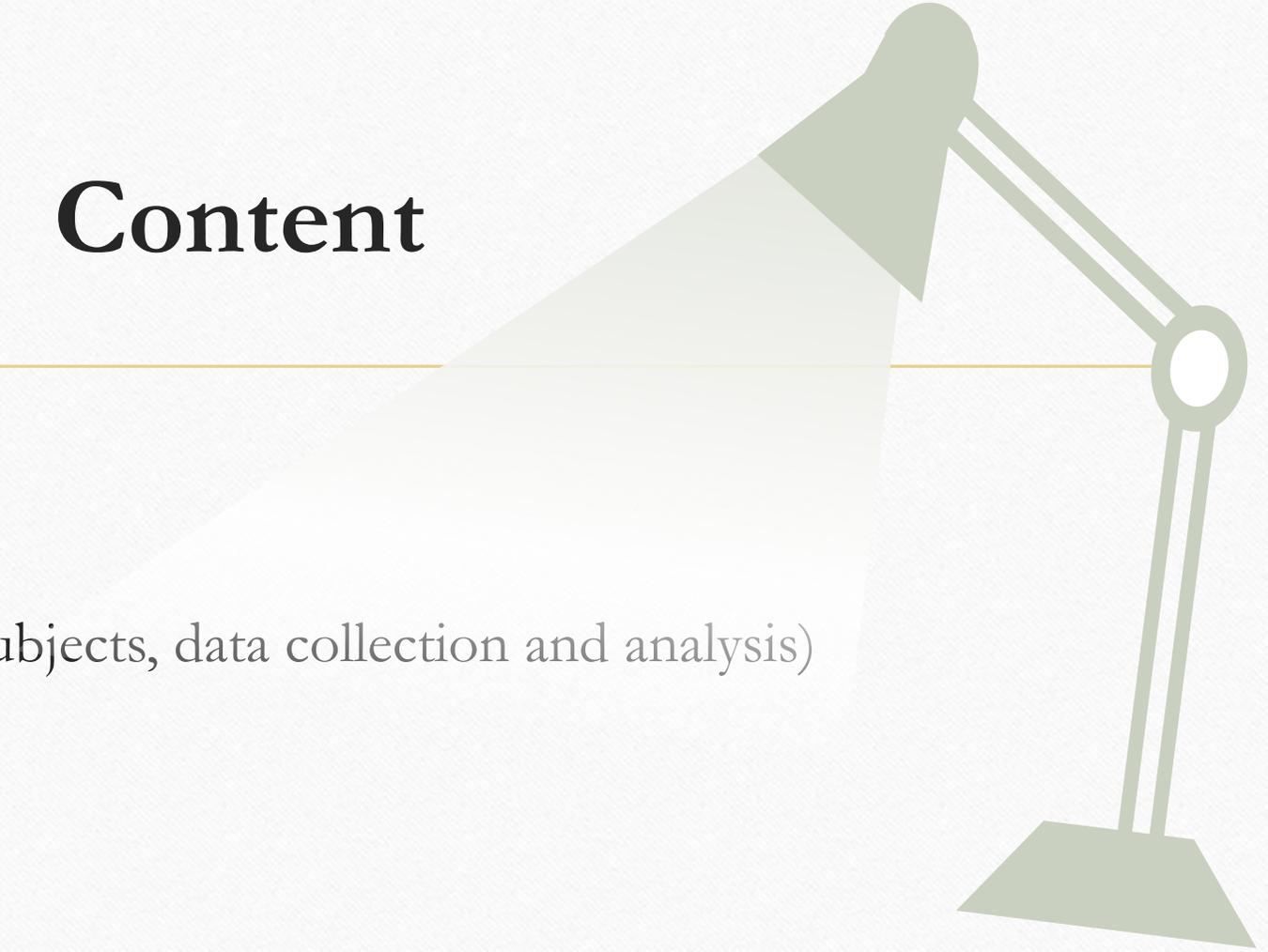
Hong Kong Metropolitan University

27 August 2024

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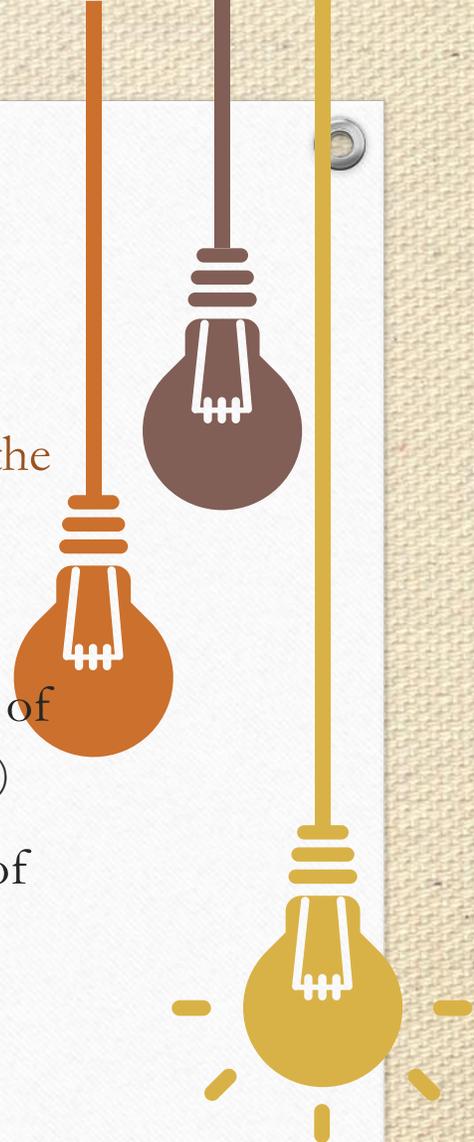
# Content



- 
- Background
  - Aim
  - Methods (design, setting, subjects, data collection and analysis)
  - Results
  - Discussion
  - Conclusion
  - Reference

# Background

- The job of the **first-line nurse manager (FLNM)** has been regarded as the most challenging one among all levels of nursing management because of their **proximity to the point of care**
  - play a role in contributing to **staff retention**, which in turn impacts the **quality of care**
- The majority of past studies on nurse manager competencies focused on a specific type of competencies (e.g. informatics and evidence-based practice) (Hart, 2010; Shuman et al., 2018)
- Others adopted a broader scope to develop a set of generic competencies for all levels of nurse managers (McCarthy & Fitzpatrick, 2009)
- Competencies crucial for managerial and leadership effectiveness can vary significantly across different levels of management
  - no one set of generic competencies would apply to all levels of nurse managers



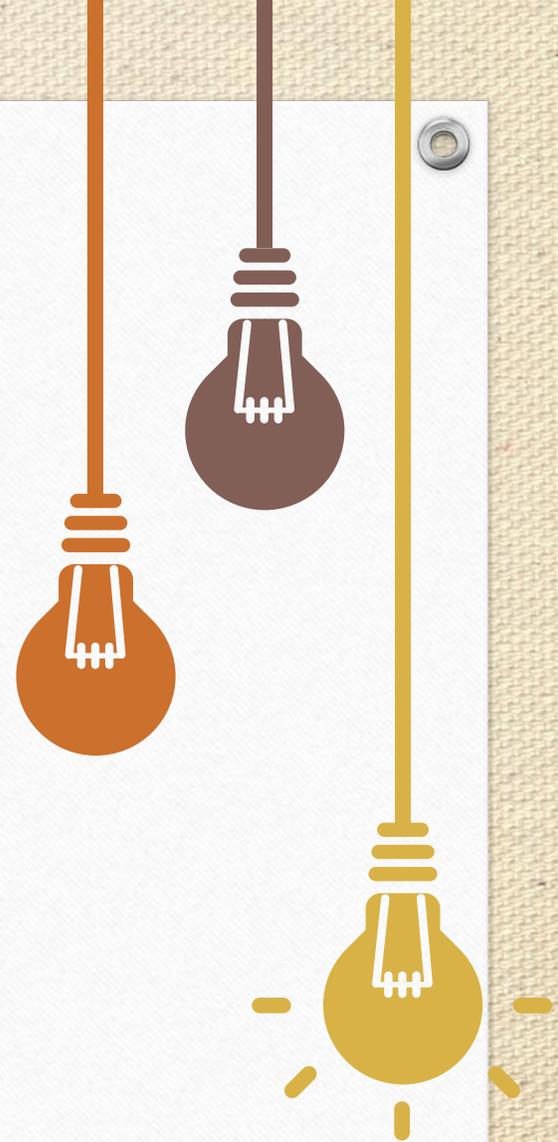
# The Study

## Aim

- To identify the competencies required of FLNMs, and the specific domains that predict nurse outcomes, namely the job satisfaction and turnover intention of staff nurses

## Design

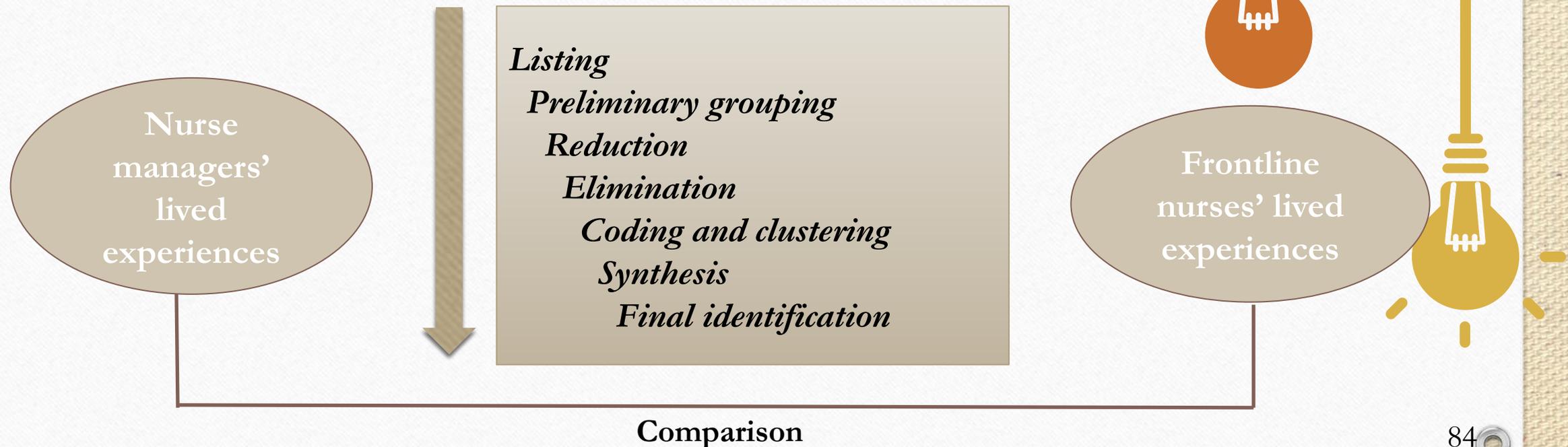
- An exploratory sequential mixed methods design, which involves the use of:
  - Qualitative interviews to identify FLNM competencies crucial for managerial success
  - A survey to identify the specific domains of FLNM competencies that predict nurse outcomes



# Phase I: Qualitative Interviews

- Involved a total of **48 informants**, comprising 29 FLNMs and 19 frontline nurses working in public and private general hospitals in Hong Kong

## The process of controlled explication (Van Kaam, 1966)

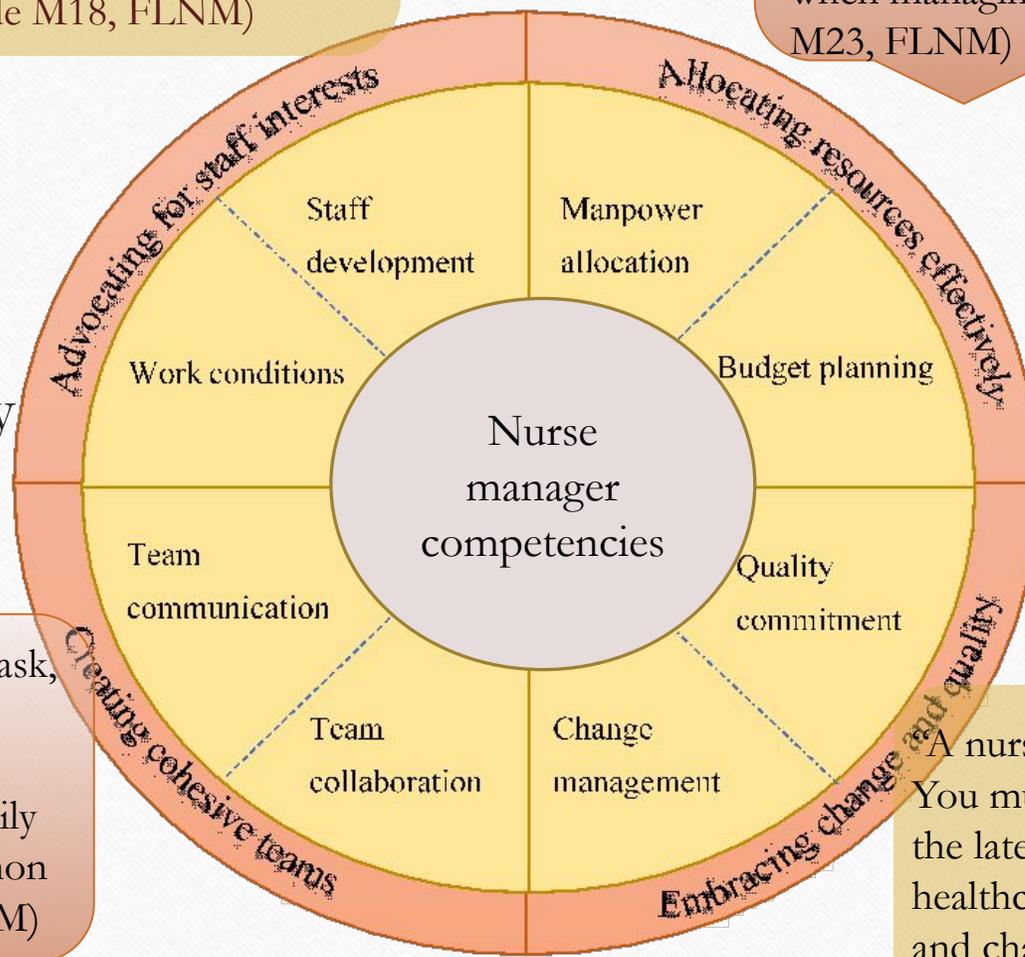


The role of a nurse manager is being an advocate, managing the ward operation well, providing a favorable work environment for staff, speaking up for them, and defending their best interests.” (Code M18, FLNM)

“I’m still learning, particularly about managing human resources.... Our work demands quality, and involves too many stakeholders. Their characteristics must be considered when managing their work.” (Code M23, FLNM)

## Outcomes of analysis

- Four themes and a list of descriptive expressions that describe the core competency areas of FLNMs were generated



“Creating teams is never an easy task, as colleagues are from different generations. Their opinions are usually different, and conflicts easily arise when they don’t share common views at work.” (Code M04, FLNM)

A nurse manager must be ‘trendy.’ You must be able to catch up with the latest developments in healthcare, its rapid advancements and changes.” (Code M05, FLNM)

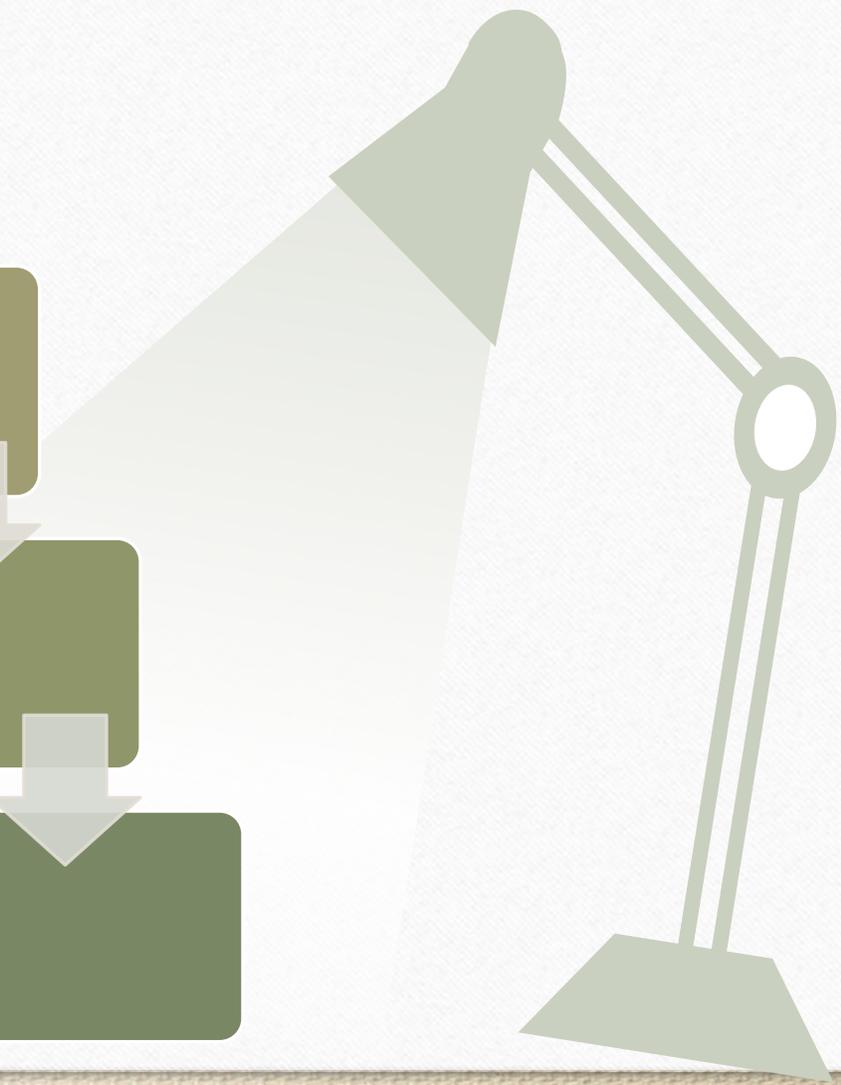
# Development and Psychometric Testing of the Instrument

A 63-item instrument capturing 4 domains of competency areas (staff advocacy, resource allocation; team effectiveness, change and quality management)

**Content validation by 4 expert panels**  
[scale-level content validity index = 0.94; minor modification to 2 items]

**Psychometric property testing by 970 staff nurses**  
in Feb-May 2022 [Exploratory Factor Analysis yielded a 5-factor structure that accounted for 58.3% of the total variance; internal consistency coefficient = 0.96]

**A 60-item Nurse Manager Competency Scale,**  
capturing 5 domains of competency areas (staff advocacy, change and resource management; team effectiveness, quality pursuance; personal mastery)



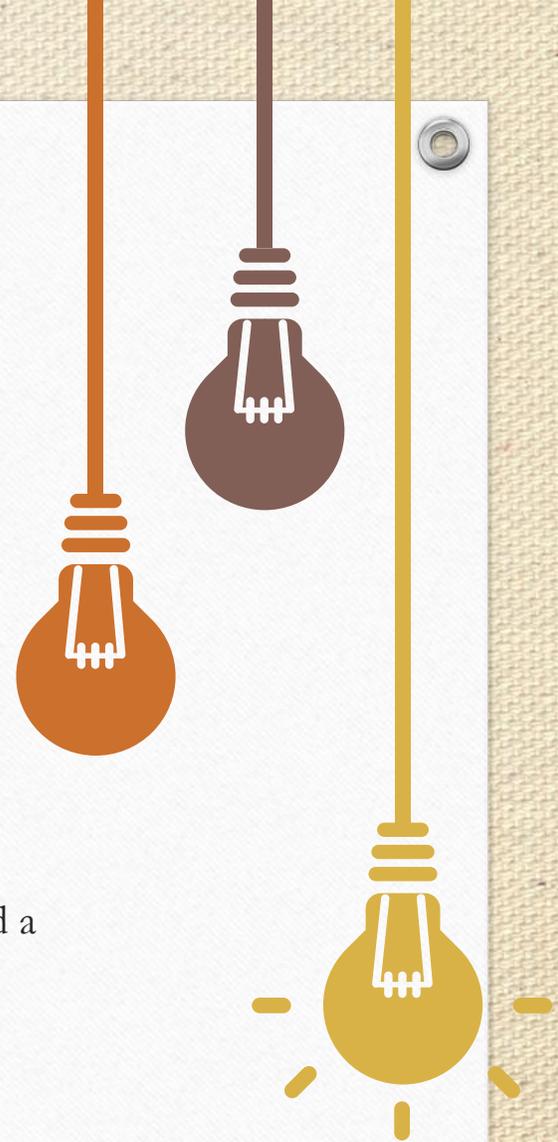
# Phase II: Survey

## Setting and Subjects

- Subjects were recruited using convenience and snowball sampling techniques
- The survey was distributed to 824 frontline nurses working in public and private general hospitals in Hong Kong in May to July 2022
- The response rate was 84.7% (N = 698), and 688 questionnaires were filled out completely

## Data Collection and Ethical Considerations

- Using online questionnaires that captured 4 variables:
  - Nurse manager competencies (measured by the *60-item Nurse Manager Competency Scale* that adopted a 5-point Likert scale)
  - Job satisfaction (a single-item measure that adopted a 5-point Likert scale)
  - Turnover intention (a single-item measure that adopted a 5-point Likert scale)
  - Demographic and work-related variables
- ✓ Implied consent; information sheet; rights to confidentiality and withdrawal from study



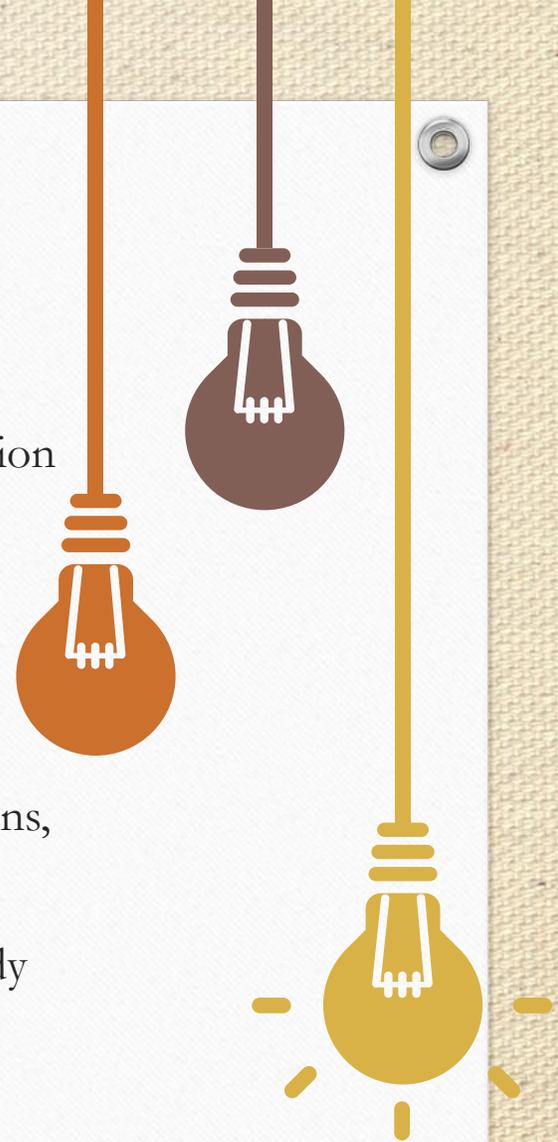
# Phase II: Survey (Cont'd)

## Adequacy of Sample Size

- Ensured by using G\*Power v.3.1.9.4 for sample size estimation [for a multiple linear regression analysis]

## Data Analysis

- Analyzed using SPSS version 26.0 software
- Variables were summarized using descriptive statistics such as frequencies, percentages, means, and standard deviations (SDs)
- Pearson correlation analyses were performed to examine the associations among all the study variables
- Multiple linear regression analyses were conducted to identify the factors predicting the job satisfaction and turnover intention of frontline nurses
- For all the analyses, a  $p$  value of  $< .05$  was regarded as statistically significant



## Respondents' characteristics

- The majority were female (83.6%, n = 575), and were Registered Nurses (61.3%; n = 422) working in public hospitals in Hong Kong (83.9%; n = 577)
- Around half of them worked in general medical and surgical settings (46.7%; n = 321), and approximately 60% of them (n = 416) had >10 years of work experience

Respondents' characteristics	n(%)
<b>Gender</b>	
Male	113 (16.4)
Female	575 (83.6)
<b>Age</b>	
25 or below	34 (4.9)
26-35	227 (33.0)
36-45	178 (25.9)
46-55	187 (27.2)
56 or above	62 (9.0)
<b>Rank</b>	
Enrolled Nurse	87 (12.6)
Registered Nurse	422 (61.3)
Advanced Practice Nurse	179 (26.0)
<b>Type of hospital</b>	
Public acute hospital	451 (65.6)
Public sub-acute hospital	126 (18.3)
Private hospital	111 (16.1)
<b>Type of clinical setting</b>	
Medical	207 (30.1)
Surgical	114 (16.6)
Obstetrics	41 (6.0)
Psychiatry	75 (10.9)
Accident & Emergency	39 (5.7)
Operating Theatre	68 (9.9)
Out-patient Clinic / Community Nursing Service	59 (8.6)
Others	85 (12.4)
<b>Years of working as a nurse</b>	
1 to 3 year(s)	55 (8.0)
4 to 10 years	217 (31.5)
11 to 20 years	159 (23.1)
21 to 30 years	172 (25.0)
>30 years	85 (12.4)



# Results

## Level of Nurse Manager Competencies

- The overall mean score on nurse manager of 5 (SD = 0.859)

Nurse Manager Competencies	Mean (SD)
Quality Pursuance	3.20 (0.811)
Personal Mastery	3.16 (0.859)
Change and Resource Management	3.15 (0.816)
Staff Advocacy	3.06 (0.918)
Team Effectiveness	3.05 (0.890)

*“monitoring staff performance to ensure quality of care”* (M = 3.44; SD = 0.974)

*“being fair”* (M = 2.88; SD = 1.131)

*“being open-minded”* (M = 2.90; SD = 1.143)

*“being knowledgeable about generational diversity”* (M = 2.98; SD = 0.997)

*“being passionate about work”* (M = 3.44; SD = 0.996)

*“being clinically knowledgeable and proficient”* (M = 3.49; SD = 0.968)

*“responding effectively to sudden increases in resource demand”*  
(M = 3.41; SD = 1.021)

*“understanding staff’s unique needs”* (M = 2.74; SD = 1.178)

*“addressing staff’s demands”* (M = 2.90; SD = 1.111)

*“standing up and speaking for colleagues”* (M = 2.92; SD = 1.148)

*“establishing trusting relationships”* (M = 2.87; SD = 1.137)

*“providing communication platforms”* (M = 2.88; SD = 1.116)

*“viewing from others’ perspectives”* (M = 2.89; SD = 1.121)

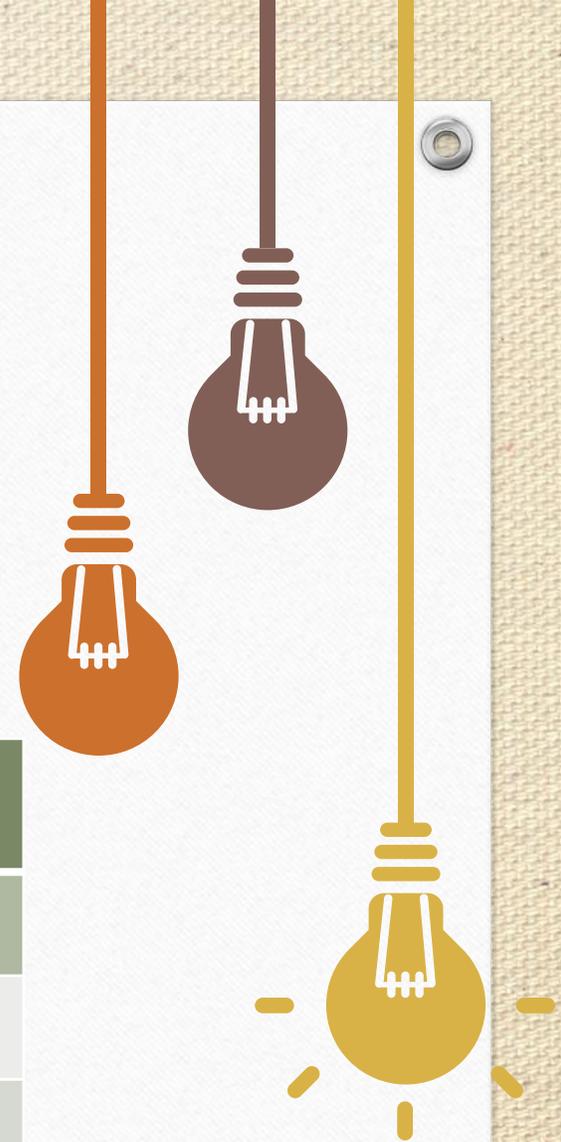
*“willing to take others’ opinions”* (M = 2.92; SD = 1.110)

# Results (Cont'd)

## Nurse Outcomes

- The mean job satisfaction level was 2.85 out of 5 (SD = 0.875), which was lower than the mid-point
- The mean turnover intention level was 3.16 out of 5 (SD = 0.817), which was higher than the mid-point

Nurse Outcomes	Dissatisfied/Intended to leave	Neutral	Satisfied/Not intended to leave
	n(%)		
Job satisfaction	236(34.3)	280(40.7)	172(25.0)
Turnover intention	250(36.3)	282(41.0)	156(22.7)



# Results (Cont'd)

## Correlations between Nurse Manager Competencies and Nurse Outcomes

- Pearson correlation analyses detected:
  - significant positive associations between job satisfaction and the five domains of nurse manager competencies
  - significant negative correlations between turnover intention and the five domains of nurse manager competencies
- The strength of the relationships ranged from .50 to .60

	Nurse Outcomes			
	Job satisfaction		Turnover Intention	
	Pearson's r	p value	Pearson's r	p value
Nurse manager competencies	.60	<.001	-.58	<.001
Team Effectiveness	.59	<.001	-.57	<.001
Staff Advocacy	.59	<.001	-.58	<.001
Change and Resource Management	.57	<.001	-.52	<.001
Personal Mastery	.58	<.001	-.57	<.001
Quality Pursuance	.56	<.001	-.53	<.001

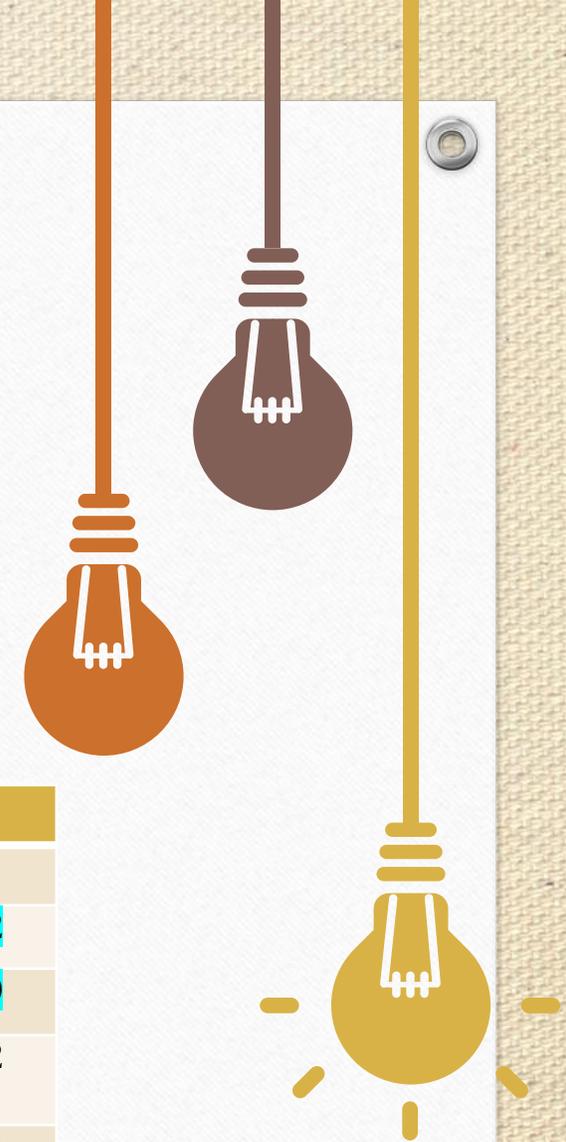


# Results (Cont'd)

## Predictors of Nurse Outcomes

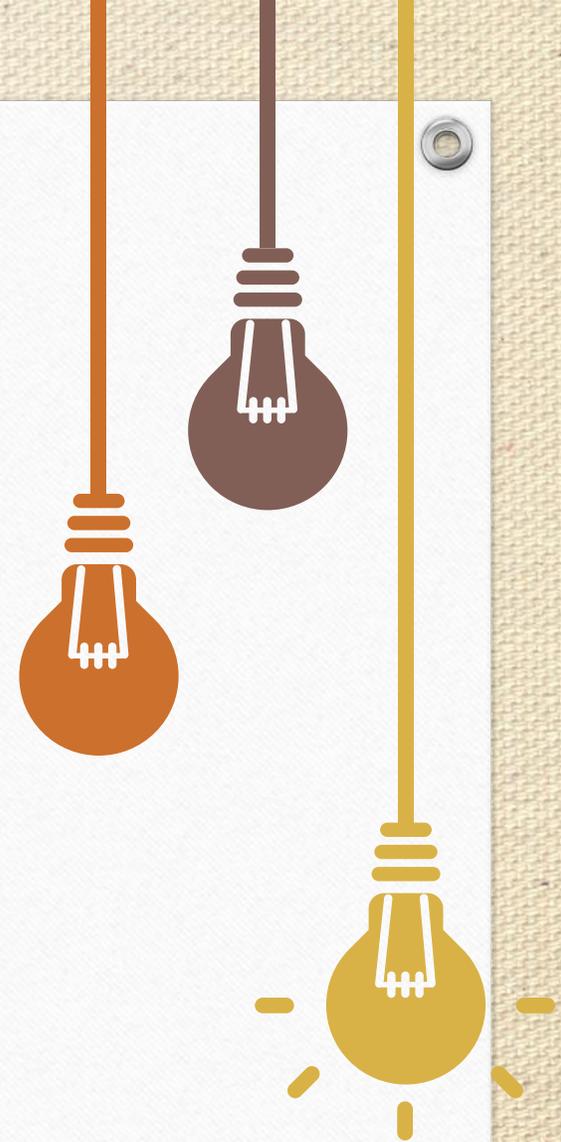
- The regression models were adjusted for personal and work-related variables
- The presence of multicollinearity was excluded by examining the correlations among the predictor variables ( $r < .60$ ), tolerance (ranging from .130 to .216), the variance inflation factor (ranging from 4.63 to 9.74), and the condition index (ranging from 1.00 to 8.53)
- The overall regression was statistically significant in predicting the job satisfaction ( $R^2 = 0.41$ ,  $F = 159.82$ ,  $p < .000$ ) and turnover intention ( $R^2 = 0.34$ ,  $F = 176.32$ ,  $p < .000$ ) of nurses.

Predictor variables	Job satisfaction				Turnover intention			
	B	$\beta$	t	p	B	$\beta$	t	p
Team Effectiveness	.284	.289	3.035	.002	-.223	-.243	-2.511	.012
Staff Advocacy	.227	.229	2.345	.019	-.309	-.347	-3.581	.000
Change and Resource Management	.116	.108	1.352	.177	-.036	-.036	-0.424	.672
Personal Mastery	.142	.140	1.264	.207	-.106	-.111	-0.946	.344
Quality Pursuance	.203	.213	2.164	.028	-.027	-.027	-0.327	.744



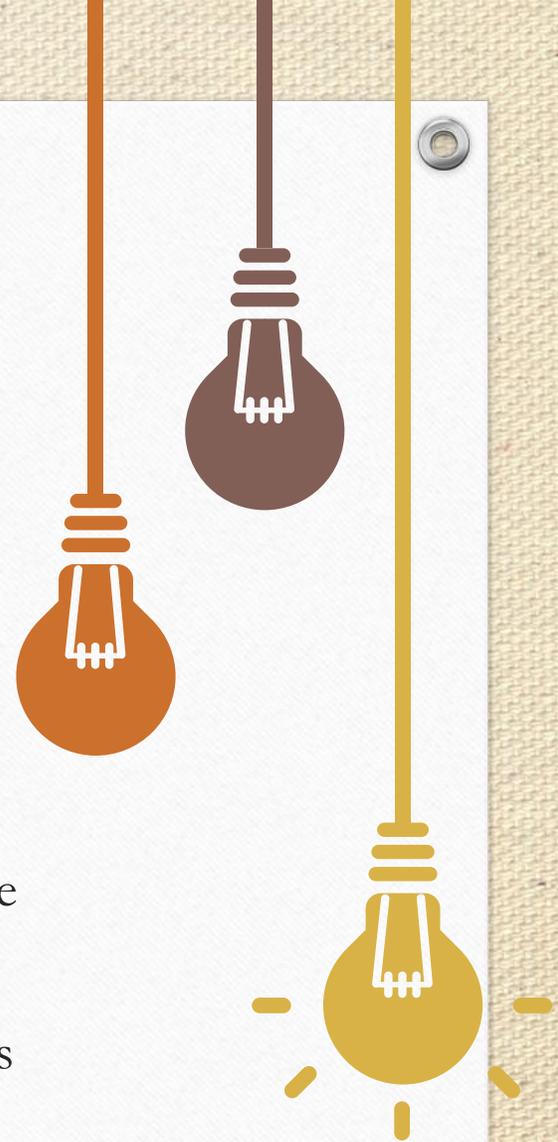
# Discussion

- Past studies identified an exhaustive list of dimensions or standards of competency, and concluded that nurse managers need to develop multifaceted abilities in order to attain managerial success (Streiner et al., 2015)
- This study provides empirical support for the specific domains of nurse manager competencies that predict nurse outcomes
- This study was conducted during the COVID-19 pandemic, and has therefore taken into account the competencies that nurse managers should learn in order to manage crises or health catastrophes such as pandemics (Vázquez-Calatayud et al., 2022)



# Discussion (Cont'd)

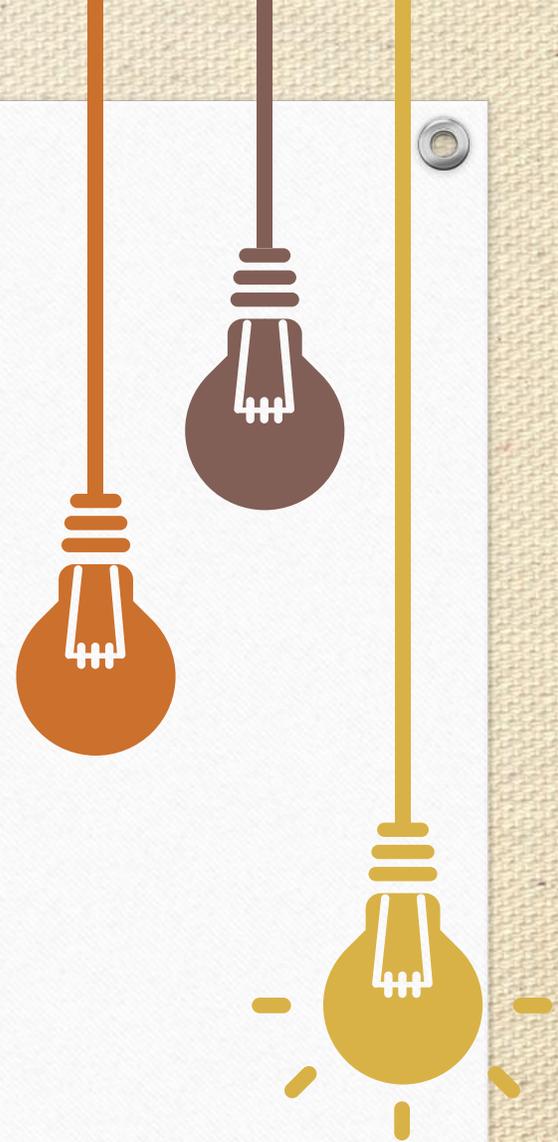
- Aspects that were more positively rated by frontline nurses (e.g. change and resource management, and quality monitoring and pursuance) were the areas most directly impacted by the pandemic (Galleryzki et al., 2021; Kim et al., 2022; Rodriguez et al., 2022)
- Areas that require improvement were the areas that predict nurse outcomes (e.g. staff advocacy, and team communication and collaboration)
  - can be attributed to the lack of time and increased workload resulting from the pandemic situation (Galleryzki et al., 2021)
  - pandemic situations forced FLNMs to share information and convey messages in a quick but less organized manner, and that sometimes the voices of staff nurses were overlooked (Vázquez-Calatayud et al., 2022)



# Implications

## For practice and education

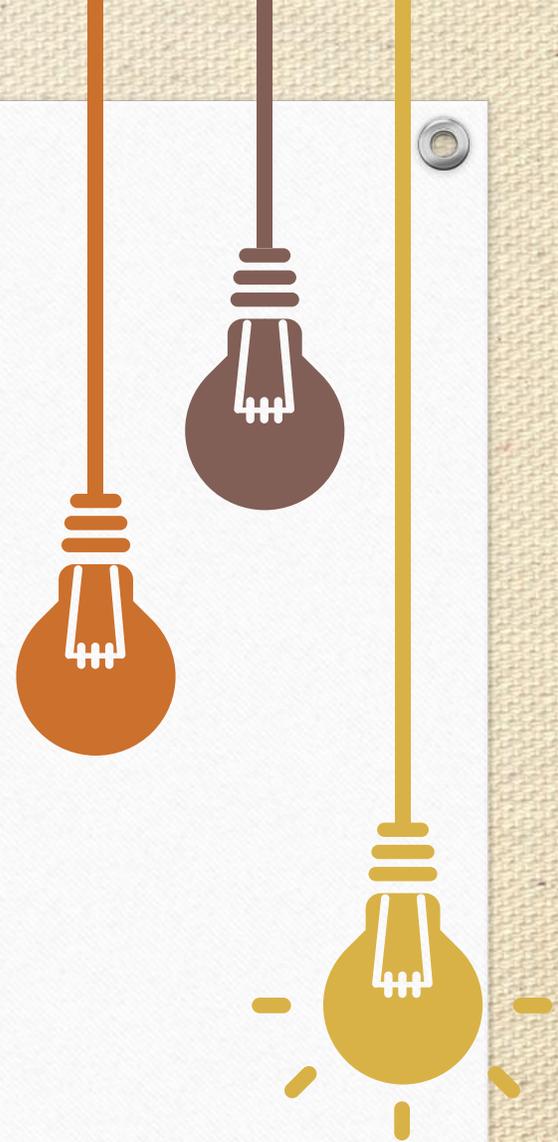
- The *Nurse Manager Competency Scale* captured the areas of competency crucial for managerial success, and can be adopted as a tool to assess the competencies of nurse managers against standards of performance (Gonczi et al., 1993)
- The findings of this study can serve as a basis for designing training and orientation programmes for nurse managers (Kim et al., 2022)
- There is a need to conduct regular educational need assessments, as the competencies required for success may change with time and cross different generations (Flatekval & Corbo, 2019; Shomura et al., 2019)



# Implications (Cont'd)

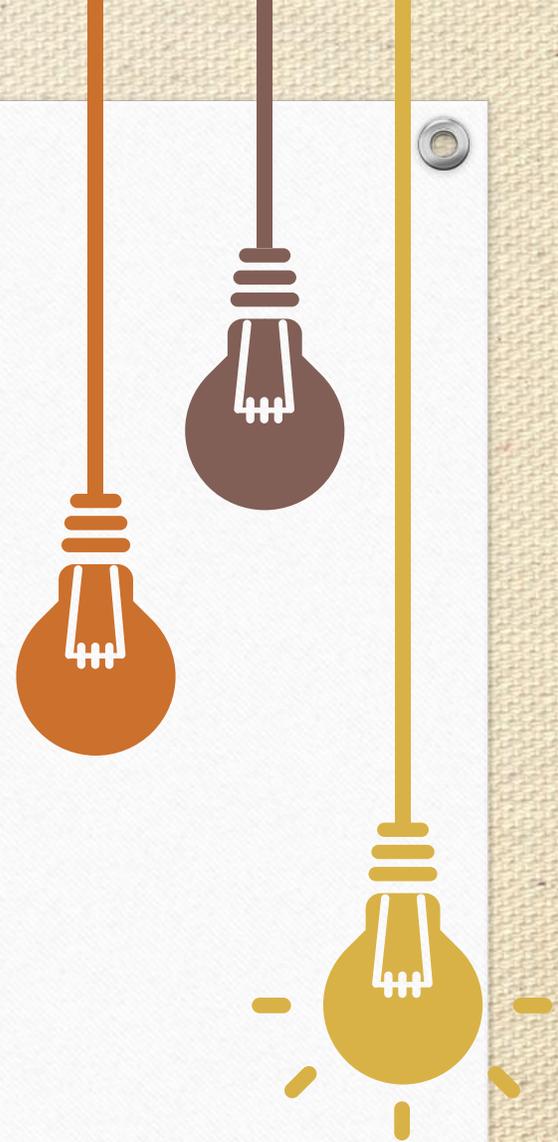
## For future research

- Use of more objective measures such as actual nurse turnover
- Use of a more sophisticated sampling approach that allows for unit-level analyses
- Comparison between the nurse managers' perceptions of their own competencies with those evaluated by staff nurses the gap in existing management practices



# Conclusion

- Nurse managers play a pivotal role in ensuring both workforce stability and quality of care
- This study adds knowledge to the specific domains of competencies that nurse managers require in order to ensure positive nurse outcomes, and has implications for what they can put into practice to attain the goal of organizational and workforce stability



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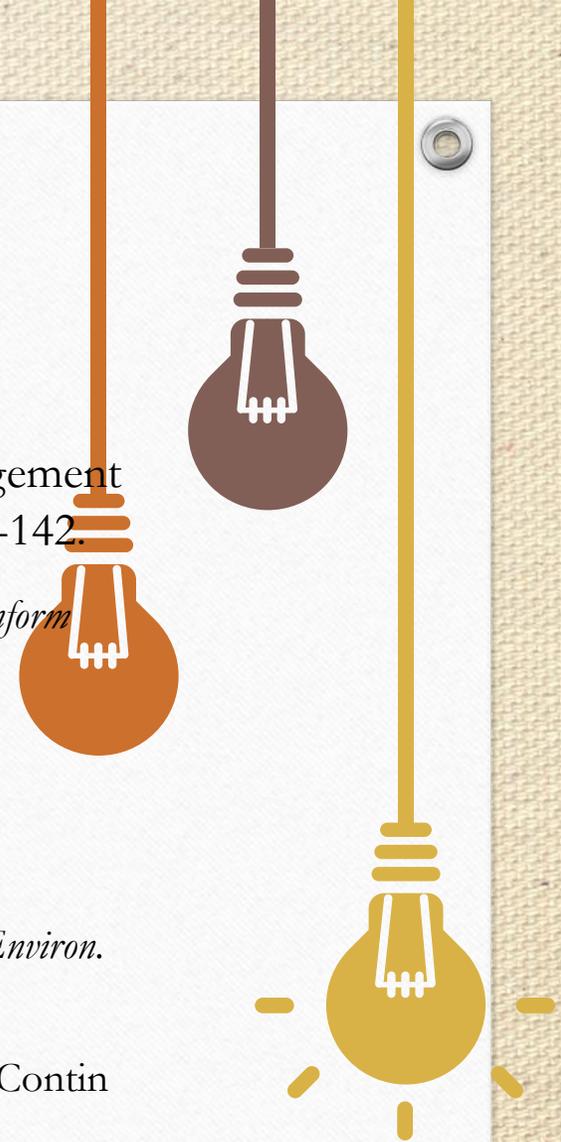
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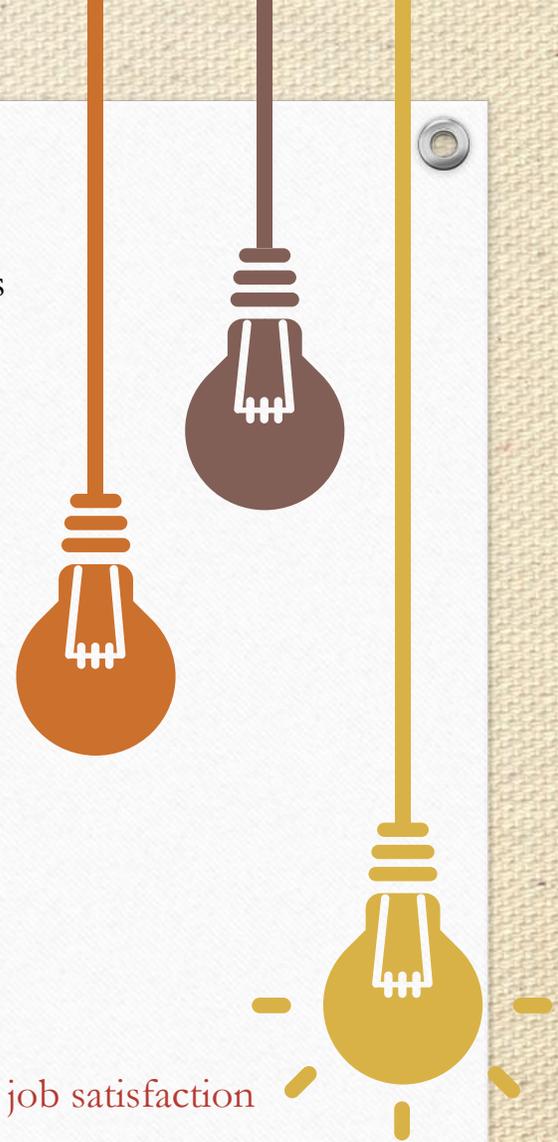
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## **Publications arising from this project:**

Choi, P.P.; Lee, W.M.; Wong, S.S.; Tiu, M.H. Competencies of nurse managers as predictors of staff nurses' job satisfaction and turnover intention. *Int. J. Environ. Res. Public Health* 2022.

Choi, P.P.; Wong, S.S.; Lee, W.M.; Tiu, M.H. Multi-generational Perspectives on the Competencies Required of First-line Nurse Managers. *Int. J. Environ. Res. Public Health* 2022, 19, 10560.



# Thank you

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# Nursing Matters and Beyond:

## *Part 4 - How Do Nurses Contribute to Health Quality and Cost Containment? (S6)*

International Forum on Quality and Safety in Healthcare, Hong Kong

Maureen Bisognano  
President Emerita and Senior Fellow  
Institute for Healthcare Improvement

# Leadership Challenges for Us All

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- Deeply understanding the lives of our patients, communities and teams
- Using data and science to guide the priorities for change
- Building the will for change
- Harvesting, innovating and sharing the ideas for a better future
- Leading the implementation of change packages
- Spreading across all parts of the system



# The Need for Birth Equity



In the US, black women at 3-4x the risk as white women of death from pregnancy-related causes

# Centering Pregnancy

“[It] turned out to be the best decision we made during the pregnancy.”



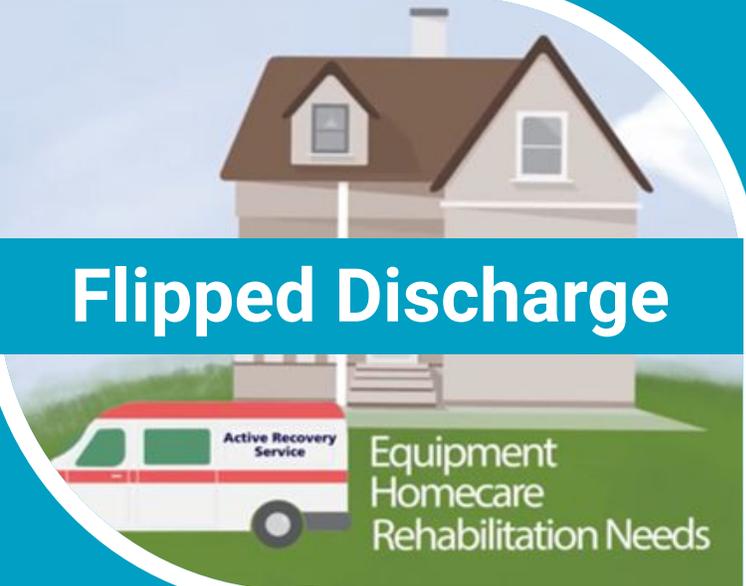
Reduced the risk of preterm delivery from  
12.1 to 7.9%



Rate of black women having preterm birth  
fell from 15.8% to 10%.



Participants more likely to breastfeed:  
54.6% vs. 66.5%



Flipped Discharge

Active Recovery Service  
Equipment  
Homecare  
Rehabilitation Needs



Buurtzorg



Backpack Nurse



Hospital at Home



CAPABLE



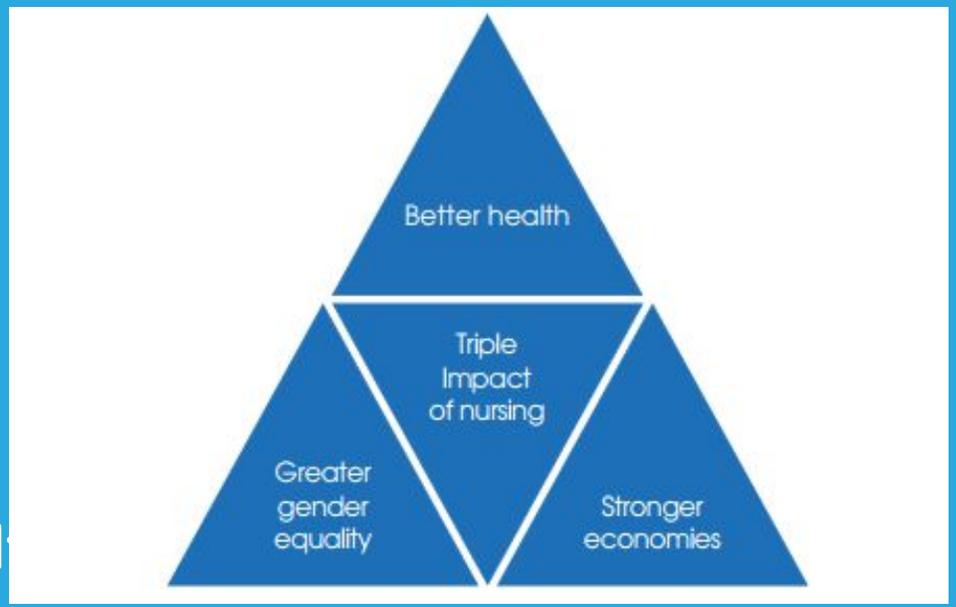


Credit: Guy's and St Thomas' NHS Foundation Trust

# Triple Impact of Nursing

- Improve health
- Promote gender equity
- Strengthen economies

All-Party Parliamentary Group on Global Health



# What is Nursing Now Challenge about?

Our driving force and what we offer is present in our four foundational pillars:

1

**Resources:** we're here to share knowledge and information with you, to strengthen your global network

3

**Leadership:** we provide opportunities to build on leadership development both personally and professionally, to encourage local and global impact

2

**Networking:** we offer opportunities to be part of a social movement, collaborating both online and in person

4

**Research & Innovation:** we connect people in innovation and research to accelerate global health solutions

# Thank You

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Maureen Bisognano  
President Emerita and Senior Fellow  
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<https://wmtty.world>  
<https://kindnessinhealthcare.world>





# International Forum on Quality and Safety in Healthcare HONG KONG

## S6: Nursing Matters and Beyond

How do Nurses contribute to  
health quality and cost containment?

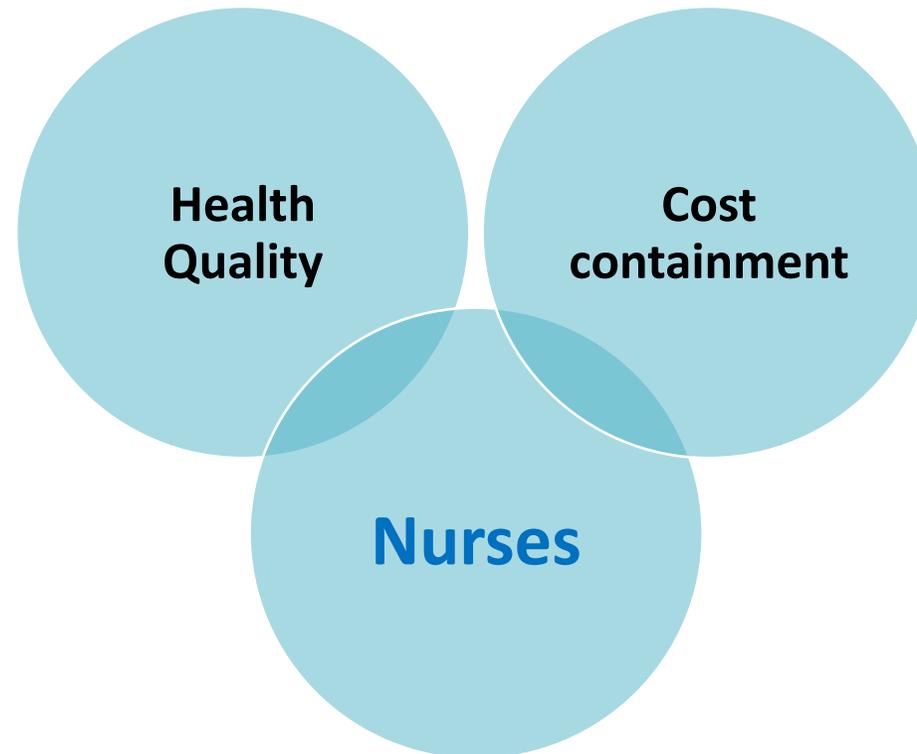
27<sup>th</sup> August 2024 1400-1405

Prof. Agnes TIWARI Fung Yee  
Chairperson of HK Nursing Council



# International Forum on Quality and Safety in Healthcare HONG KONG

How do Nurses contribute to health quality and cost containment?





# International Forum on Quality and Safety in Healthcare HONG KONG

How do Nurses contribute to health quality and cost containment?

Vaccinations

Maternal &  
Child Health  
Programmes

Preventive  
Care

Proactive  
Health  
Management

Healthcare  
Costs

Smoking  
Cessation

Weight  
Management

*Through preventive care strategies, nurses help improve health quality while effectively managing healthcare costs*



# International Forum on Quality and Safety in Healthcare HONG KONG

How do Nurses contribute to health quality and cost containment?

Hand  
Hygiene  
Practices

Fall  
Prevention

Evidence-based  
Practices

Quality of  
Care

Health  
Outcomes &  
Costs

Pain  
Management

Pressure  
Ulcer  
Prevention

*By integrating evidence-based practices, nurses play a crucial role in promoting health quality while also controlling costs*



# International Forum on Quality and Safety in Healthcare HONG KONG

How do Nurses contribute to health quality and cost containment?

Heart Health  
Education

Diabetes  
Management  
Education

Patient  
Education

Empowermen  
t

Effectiveness  
&  
Cost-efficienc  
y

Chronic Pain  
Management

Medication  
Management

*Through these educational initiatives, nurses empower patients and caregivers to manage health problems effectively and cost-efficiently.*



# International Forum on Quality and Safety in Healthcare HONG KONG

How do Nurses contribute to health quality and cost containment?

Mobile  
Health Apps

Remote  
Monitoring  
Devices

Online  
Support

Healthcare  
Technology

Accessibility

Participation

Telehealth  
Services

*By integrating these technologies, nurses can significantly enhance patient care accessibility and participation*



# International Forum on Quality and Safety in Healthcare HONG KONG

How do Nurses contribute to health quality and cost containment?

Challenges  
faced by  
nurses

Stakeholder  
collaboration

*HKNC plays a crucial role in supporting nurses through rigorous standards and continuous professional development*

Improvement plans

Pre-registration/Pre-enrolment Nursing Education

Continuing Nursing Education

Licensure and Accreditation

Advanced and Specialised Nursing Practice

Code of Ethics and Professional Conduct for Nurses in Hong Kong

Guides to Good Nursing Practice

Scope of Professional Practice



# International Forum on Quality and Safety in Healthcare HONG KONG

# Thank You

Prof. Agnes TIWARI Fung Yee  
Chairperson of HK Nursing Council

## **S6: Nursing Matters and Beyond**

How do Nurses contribute to  
health quality and cost containment?

Dr. Danny TONG Wah Kun  
Chief Manager (Nursing) / Chief Nurse Executive  
Hospital Authority



# International Forum on Quality and Safety in Healthcare HONG KONG

How do Nurses contribute to health quality and cost containment?


$$\text{Value} = \frac{\text{Quality} \text{ (with star icon)}}{\text{Cost} \text{ (with \$ icon)}} = \frac{\text{Clinical Outcomes} + \text{Patient Experience} + \text{Patient Safety}}{\text{Direct Costs} + \text{Indirect Costs} / \text{Revenue Costs} + \text{Capital Costs}}$$

Reference: LynxCare; One NHS Finance



# International Forum on Quality and Safety in Healthcare HONG KONG

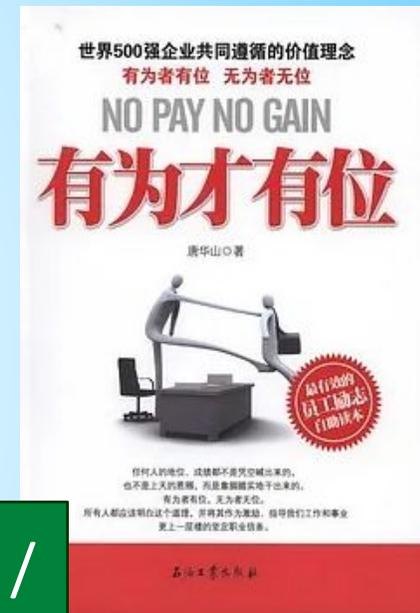
How do Nurses contribute to health quality and cost containment?

有為才有位



有作為 - 業積 / 貢獻  
有所為 - 建立美德  
Pay – Making Achievements  
& Contributions  
Pay – Achieving Moral Virtues  
& making impacts to society

獲得應有的工作 / 職銜 / 領導職位 /  
尊重 / 地位  
Gain - a Post / Title / Position / Salary  
/ Dividends  
Earn - Respect / Recognition /  
Professional Status





# International Forum on Quality and Safety in Healthcare HONG KONG

# Thank You

Dr. Danny TONG Wah Kun  
Chief Manager (Nursing) / Chief Nurse Executive  
Hospital Authority



# International Forum on Quality and Safety in Healthcare HONG KONG

## S6: Nursing Matters and Beyond

How do Nurses contribute to  
health quality and cost containment?

27<sup>th</sup> August 2024 1410-1415

Prof. Sylvia FUNG Yuk Kuen BBS  
President

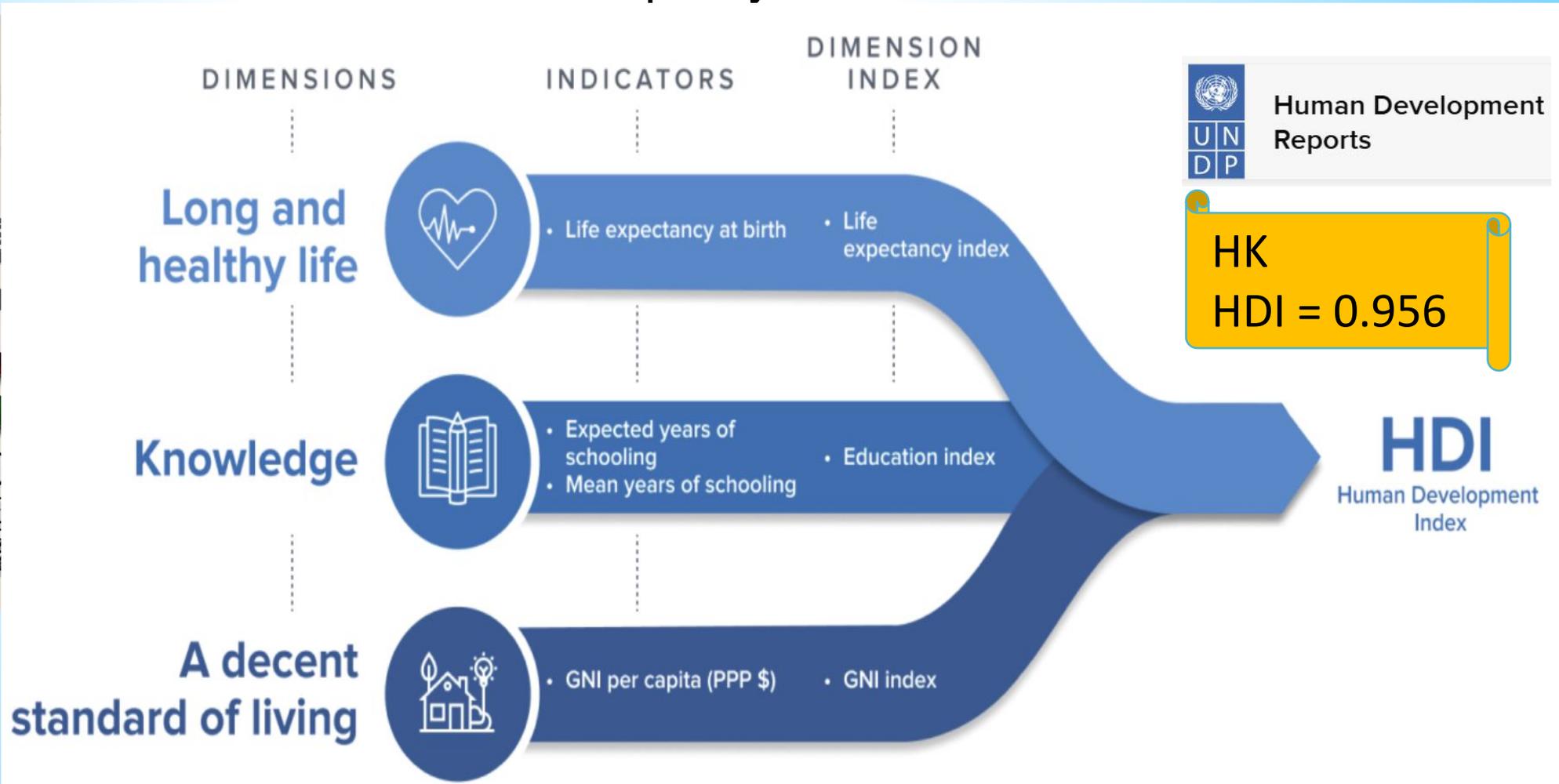
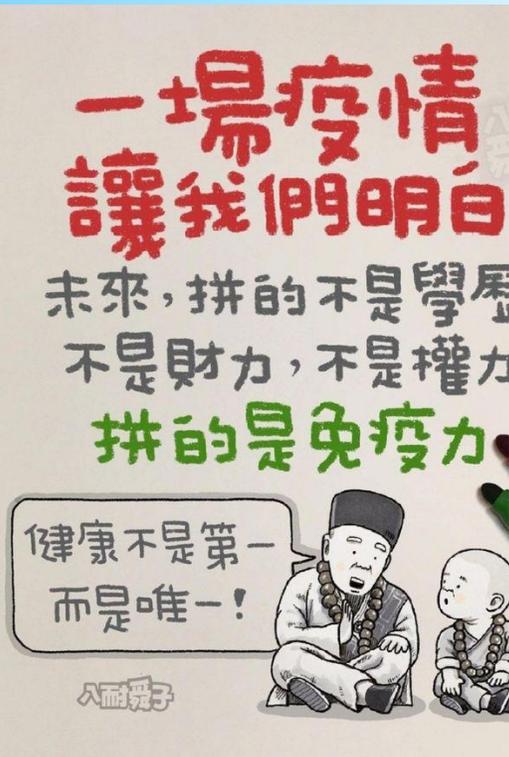
The Hong Kong Academy of Nursing & Midwifery



# International Forum on Quality and Safety in Healthcare

## HONG KONG

How do Nurses contribute to health quality and cost containment?



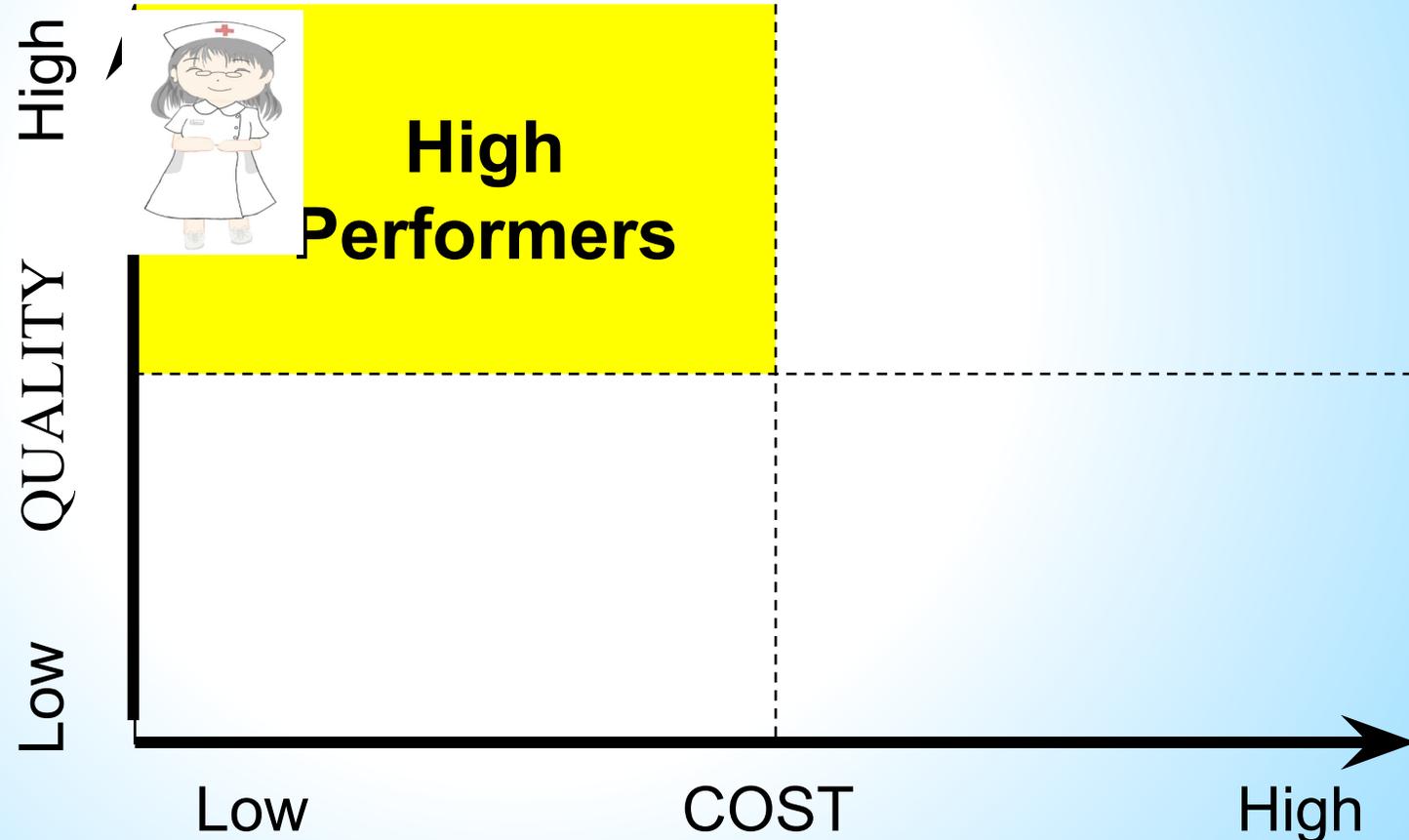


# International Forum on Quality and Safety in Healthcare HONG KONG

How do Nurses contribute to health quality and cost containment?

**QUALITY  
MEANS  
DOING IT  
RIGHT  
WHEN NO  
ONE IS  
LOOKING**

AVERSTU.COM





# International Forum on Quality and Safety in Healthcare HONG KONG

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Prof. Sylvia FUNG Yuk Kuen BBS  
President

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