

## Project Title

Determination of Direct Care Nursing Staffing by the Workload Indicators of Staffing Need Method at University Medical Centre, Ho Chi Minh City, Vietnam

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## Organisation(s) Involved

University Medical Center, Ho Chi Minh City

University of Medicine and Pharmacy, Ho Chi Minh City

## Healthcare Family Group(s) Involved in this Project

Healthcare Administration, Nursing

## Aims

This study aimed to investigate nursing care needs, nursing workload and to determine direct care nursing staffing at University Medical Center Ho Chi Minh City (UMC), Vietnam.

## Background

See poster appended / below

## Methods

See poster appended / below

## Results

See poster appended / below

## Conclusion

See poster appended / below

## Additional Information

Singapore Healthcare Management (SHM) Conference 2021 – Shortlisted Project  
(Human Resource Category)

## Project Category

Applied/ Translational Research, Mixed-Methods

## Keywords

Manpower Shortage, Workload Indicator of Staffing Need

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# DETERMINATION DIRECT CARE NURSING STAFFING BY THE WORKLOAD INDICATORS OF STAFFING NEED METHOD AT UNIVERSITY MEDICAL CENTER HO CHI MINH CITY, VIETNAM



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## INTRODUCTION

Nursing shortage is a challenging issue globally which may lead to excessive workload and burnout in physical and mental health. In Vietnam, human resource policies have not been specific and the determination of nursing staff requirements to meet patients' needs has been a controversial topic. This study aimed to investigate nursing care needs, nursing workload and to determine direct care nursing staffing at University Medical Center Ho Chi Minh City (UMC), Vietnam.

## METHODOLOGY

01

### A DESCRIPTIVE CROSS-SECTIONAL STUDY

917 nursing shifts

continuous care provision for the patients from admission to discharge

University Medical Center Ho Chi Minh City, Vietnam

- 870 beds
- 21 clinical wards (includes 3 ICUs)
- Length of stay: 4.6 days.
- Level of dependency (LOD): special level > level 1 > level 2 > level 3

Special level: these patients have a serious medical condition required continuous treatment and care as well as the use of specialized medical equipment and devices such as ventilators, dialysis machines and so forth.

Level 1: the patients often suffer from health problems required constant medical care and closely follow-up.

Level 2: the patients are hospitalized with health problems required to be treated and followed regularly

Level 3: the patients are about to be discharged or have recently been hospitalized to solve a health problem.

### STEPS OF WORKLOAD INDICATORS OF STAFFING NEED (WISN)

- Step 1 – Estimate number of patients based on LOD
- Step 2 – Calculate the time of nursing care based on LOD
- Step 3 – Calculate the total time of nursing care per year
- Step 4 – Define the number of working day and total working hours per year
- Step 5 – Calculate the total number of nurses needed for patient care

02

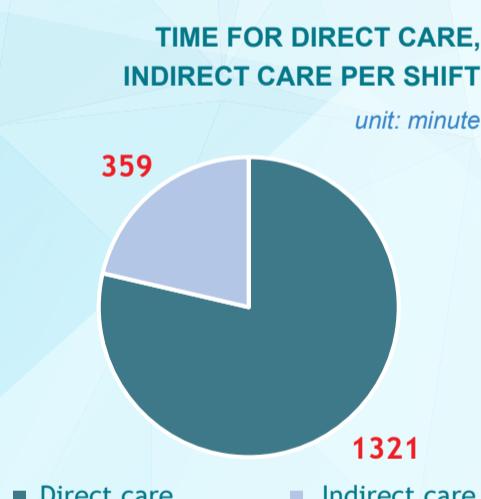
### IDENTIFY NURSING WORK:

- 96 activities
- 14 groups
- 2 categories: direct care, indirect care

September 2019

November 2019

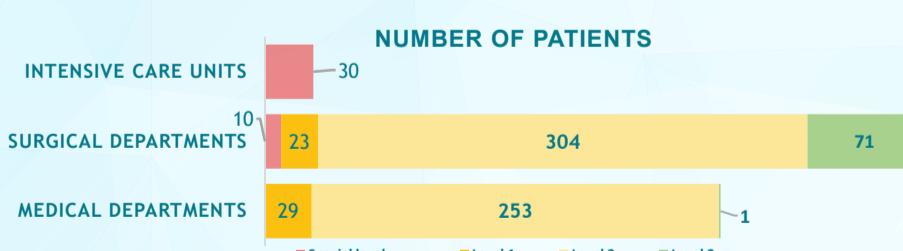
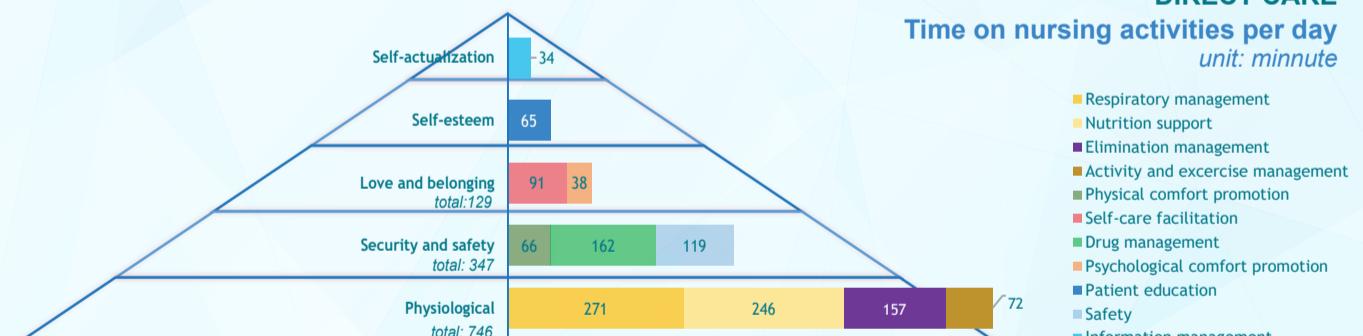
## RESULTS



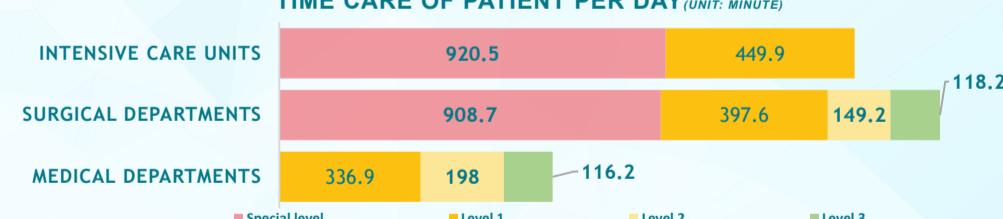
INDIRECT CARE  
Time on nursing activities per shift  
unit: minute



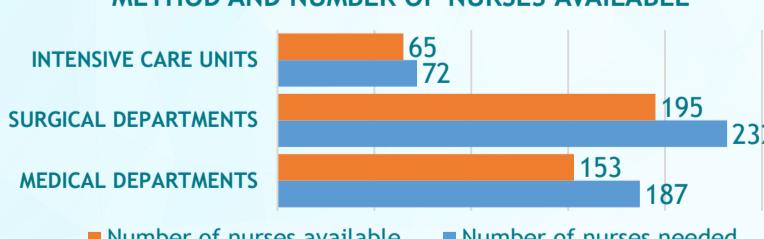
DIRECT CARE  
Time on nursing activities per day  
unit: minute



TIME CARE OF PATIENT PER DAY (UNIT: MINUTE)



### NUMBER OF NURSES CALCULATED FROM WISN METHOD AND NUMBER OF NURSES AVAILABLE



$$k = \frac{\text{total time care for patients per day (minute)} \times \text{number of patients} \times 365}{60}$$

$$\text{number of nurses} = \frac{k \times 115\%}{(365 - A) \times H}$$

(A: total day-off per year; H: working hours per day)

## CONCLUSION

- The available nursing personnel met 84.1% of patients' needs at UMC.
- It is necessary to provide 78 additional nurses according to the WISN method to delivery comprehensive care based on patient-centered care model and to respond to higher levels of Maslow's hierarchy of needs.