

STAFFING

Part II

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Staff estimation

Guide to staffing nursing services

1. Projecting Staffing Needs

Some steps to be taken in projecting staffing needs include:

1. Identify the components of nursing care and nursing service.
2. Define the standards of patient care to be maintained.
3. Estimate the average number of nursing hours needed for the required hours.
4. Determine the proportion of nursing hours to be provided by registered nurses and other nursing service personnel
5. Determine policies regarding these positions and for rotation of personnel.



2. Computing number of nurses required on a Yearly Basis

1. Find the total number of general nursing hours needed in one year.

Average patient census \times average nursing hours per patient for 24 hours \times days in week \times weeks in year.

2. Find the number of general nursing hours needed in one year which should be given by registered nurses and the number which should be given by ancillary nursing personnel.
 - a. Number of general nursing hours per year \times percent to be given by registered nurses.
 - b. Number of general nursing hours per year \times percent to be given by ancillary nursing personnel.



Computing number of nurses assigned on weekly basis

- 1. Find the total number of general nursing hours needed in one week. Average patient censuses \times average nursing hours per patient in 24 hours \times days in week.
- 2. Find the number of general nursing hours needed in the week which should be given by registered nurses and the number which could be given by ancillary nursing personnel.
 - a. Number of general nursing hours per week \times percent to be given by registered nurses.
 - b. Number of general nursing hours per week \times percent to be given by ancillary nurses



One method for determining the nursing staff of a hospital

- 1. To determine the number of nursing staff for staffing a hospital involves establishing the number of work days available for service per nurse per year.
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- Example: Analysis of how the days are used; Days in the year 365 Days off 1 day/week 52 Casual leave 12 Privilege leave 30 1 Saturday /month 12 Public Holidays 18
- Public Holidays 18 Sick Leave 8 Total non-working days 132
- **Total working days /nurse/year 233** So 1 nurse = 233 working days /year Example, 20 nurse means $20 \times 233 = 4660$ hours $4660/365 = 12.8$ (13



Work load measurement tools

- A formula for calculating Nursing Care Hours Per Patient Day (NCH/PPD) is reviewed

$$\text{NCH /PPD} = \frac{\text{Nursing Hours worked in 24 hours}}{\text{Patient Census}}$$

Productivity in staffing

- Productivity is defined as output divided by input
- According to Hanson :

Required staff hours(380)

X 100 = 95%

Provided staff hours(400)

- Productivity can be increased by **decreasing** the **provided staff hours** by holding the **required staff hours constant or increasing** them.

Measurement

Hours Per Patient Day (HPPD)

Staff Hours (52000)

= 18HPPD

Patient Days(2883)

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- **Budget utilization**

Provided HPPD

X 100 = Budget Utilization

Budgeted HPPD

- **Budget Adequacy**

Budgeted HPPD(16)

X 100 = 89%

Required HPPD (18)

Factors contributing to the Nursing shortage

- Ageing population
- Rising demand
- Aging nurse workforce
- Economic pressure on hospitals
- Decline RN wages
- Increase in intensity of nursing care
- Unsatisfactory working conditions
- Declining applicants.

NORMS OF STAFFING

- Norms are standards that guide, control, and regulate individuals and communities.
- For planning nursing manpower we have to follow some norms.
- The nursing norms are recommended by various committees, such as; the Nursing Man Power Committee, the High-power Committee, Dr. Bajaj Committee, and the staff inspection committee, TNAI and INC.

(S I U- Staff Inspection Unit)

- The Staff Inspection Unit (S.I.U.) is the unit which has recommended the nursing norms in the year 1991-92.
- As per this S.I.U norm the present nurse-patient ratio is based and practiced in all central government hospitals.
- Most of the hospital today is following the S.I.U Norms.
- The post of Nursing sisters and the staff nurses has been clubbed together and the work of the ward sister is remained same as staff nurse even after promotion.
- The Assistant Nursing Superintendent and the Deputy Nursing Superintendent have to do the duty of one category below of their rank.

Recommendations of S.I.U

- The norm has been recommended taking into account the workload projected in the wards and the other areas of the hospital.
- The posts of nursing sisters and staff nurses have been clubbed together for calculating the staff entitlement for performing nursing care work which the staff nurse will continue to perform even after she is promoted to the existing scale of nursing sister.

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- Out of the entitlement worked out on the basis of the norms, 30% posts may be sanctioned as nursing sister. This would further improve the existing ratio of **1 nursing sister to 3.6**.
- The assistant nursing superintendent are recommended in the ratio of **1 ANS to every 4.5 Nursing Sisters**. The ANS will perform the duty presently performed by nursing sisters and perform duty in shift also.

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- The posts of Deputy Nursing Superintendent may continue at the level of 1 DNS per every 7.5 ANS
- There will be a post of Nursing Superintendent for every hospital having 250 or beds.

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- There will be a post of 1 Chief Nursing Officer for every hospital having 500 or more beds.
- It is recommended that 45% posts added for the area of 365 days working including 10% leave reserve (maternity leave, earned leave, and days off as nurses are entitled for 8 days off per month and 3 National Holidays per year when doing 3 shift duties).

Table - 2.12 : The Nurse-patient Ratio as per the S.I.U. Norms

1. General Ward	1:6
2. Special Ward - (pediatrics, burns, neuro surgery, cardio thoracic, neuro medicine, nursing home, spinal injury, emergency wards attached to casualty)	1:4
3. Nursery	1:2
4. I.C.U.	<ul style="list-style-type: none"> • 1:1 (Nothing mentioned about the shifts)
5. Labour Room	<ul style="list-style-type: none"> • 1:1 per table
6. O.T.	<ul style="list-style-type: none"> • Major - 1:2 per table • Minor - 1:1 per table
7. Casualty-	3 staff nurses for 24 hours, 1:1 per shift.
a. Casualty main attendance up to 100 patients per day thereafter	1:35

b. For every additional attendance of 35 patients

c. Gynae/ obstetric attendance

d. Thereafter every additional attendance of 15 patients.

- 3 staff nurses for 24 hours, 1:1/ shift
1:15

8. Injection room OPD

Attendance upto 100 patients per day 1 staff nurse
120-220 patients: 2 staff nurses
221-320 patients: 3 staff nurses
321-420 patients: 4 staff nurses

9. OPD

NAME OF THE DEPARTMENT

• Blood bank	1
• Paediatric	2
• Immunization	2
• Eye	1
• ENT	1
• Pre anaesthetic	1
• Cardio lab	1
• Bronchoscopy lab	1
• Vaccination anti rabis	1
• Family planning	2
• Medical	1
• Dental	1
• Central sample collection centre	1
• Orthopaedic	1
• Gyne	2
• Xray	2
• Skin	3
• V D centre	2
• Chemotherapy	2
• Neurology	2
• Microbiology	1
• Psychiatry	2
• Burns	1
	2

The Nurse-patient Ratio as per INC/TNAI (1985)

The Nurse-patient Ratio as per INC The norms are based on Hospital Beds.

- **Chief Nursing Officer** : 1 per 500 Beds
- **Nursing Superintendent** : 1 per 400 beds or above
- **D.NS** : 1 per 300 beds and 1 additional for every 200 beds
- **A.N.S** : 1 for 100 beds or 3-4 wards
- **Ward Sister** : 1 for 25-30 beds or one ward.30% leave reserve.

The Nurse-patient Ratio as per INC/TNAI (1985)

- **Staff Nurse** : 1 for 3 beds(1:3) in Teaching Hospital in general ward and 1 for 5 beds(1:5) in Non-teaching Hospital +30% Leave reserve
- **Extra Nursing staff** to be provided for departmental research function.
- **For OPD and Emergency** :1 staff nurse for 100 patients (1 : 100) + 30% leave reserve
- **For Intensive Care unit:** (I.C.U.)- 1:1 or (1:3 for each shift) +30% leave reserve.
- It is suggested that for 250 bedded hospital there should be One **Infection Control Nurse (ICN).**

**Table - 2.10 : Existing norm stipulated by INC with regard to nursing staff for wards and special units
(excluding out patient department)**

	Staff nurse	Staff (each shift)	Department sister/assistant nursing superintendent
Medical ward	1:3	1:25	1 for 3-4 wards
Surgical ward	1:3	1:25	1 for 3-4 weeks
Orthopedic ward	1:3	1:25	1 for 3-4 weeks
Pediatric ward	1:3	1:25	1 for 3-4 weeks
Gynecology	1:3	1:25	1 for 3-4 weeks
Maternity ward	1:3	1:25	1 for 3-4 weeks
Intensive care unit	1:1 (24 hours)	1	
Coronary care unit	1:1 (24hours)	1	
Nephrology	1:1 (24hours)	1	1 department sister/ assistant nursing, superintendent for 3-4 unitsclubbed together
Special wards –eye, ENT,etc	1:1 (24hours)	1	
Operation theatre per table	3 for 24 hours	1	1 departmental sister/ assistant nursing superintendent for 4-5 operating rooms
Causality	2-3 staff nurses the number of beds	1	1 departmental sister/ assistant nursing, superintendent for emergency , causality etc.



Thank
you!!