

# Secondary Health Care Services

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# What is Secondary Care?

- It acts as the first referral level in the health system and is also the hub for all public health action in a district. At this level, more complex problems are dealt with.
- This care is largely provided by DH. In some states CHCs provide first level referral care for selected services such as Obstetrics and newborn/childcare.
- Altogether the type of services expected to be provided at secondary care (DH) will be able to cover about 70-80% of the illnesses in a district.
- As per IPHS, secondary care facilities provide specialized essential care in 21 specialties. Services include specialist care, operative services, emergency and critical care, blood transfusion services etc.
- Besides this, it is also hub for in-service and pre-service teaching and training for nursing. DNB courses have also been initiated for MBBS doctors

# Expectations from Secondary Care

Every district should be capable to meet the requirement of

- Assured critical care
- Surgical and medical care
- Should have in-place or linkages with required supportive care
- And should be capable to build the capacity of medical and Paramedical staff for providing clinical services .

- Services should be as per IPHS
- Satisfaction of Client/patient
- Quality of services

# Learnings from Field Visits

- In-adequate surgical care facilities
- Lack of assured critical care (Emergency, HDU/ICU, NICU,PICU)
- Un-organised supportive services.
- Lack of information and data
- Opinion based planning rather than evidence-based planning
- Inadequate drugs and diagnostics



OOPE for IPD  
and OPD has  
been increased

# Some Examples - 1

A 300 bedded district hospital has 2 Obstetricians, 1 Surgeon, 1 Anaesthetist, 1 Orthopaedic Surgeon, 1 Eye surgeon, 1 ENT surgeon.

There is 2 OT in the hospital. There is no CSSD. Number of surgeries performed are 18 per month. No surgeries performed at night. What is the reason for inadequate utilization of HR?

Laundry services are outsourced and linen is sent to the local washman for cleaning in river- this is a violation of which Act?

# Some Examples - 2

There are 2 DHs.

One DH has 2 Emergency beds equipped with oxygen cylinder, patient monitor, suction machine and 1 technician is available and a good network of ambulances. Population of the district is 20 lakh.

The other DH has 2 emergency beds, but with no other provision. It has proposed for a facility based ambulance.

# Some Examples - 3

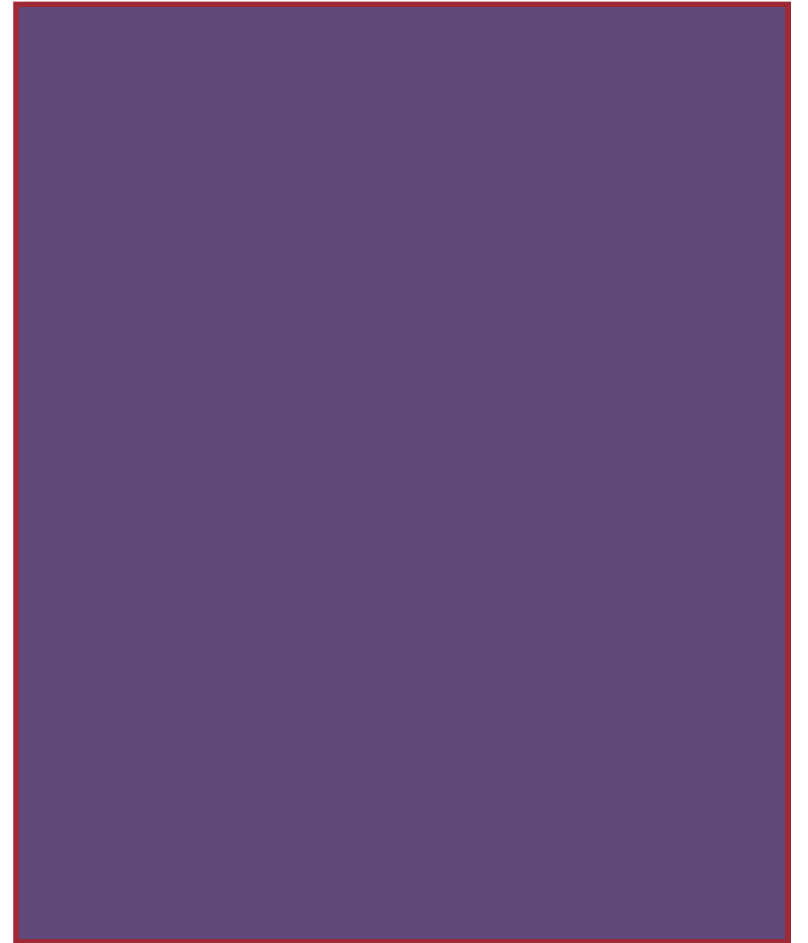
State has proposed one 300 bedded SDH which is located 2 kilometres away from an existing 600 bedded DH.

The Bed Occupancy Rate of all CHCs in the district is less than 40%.

Other information is not available.

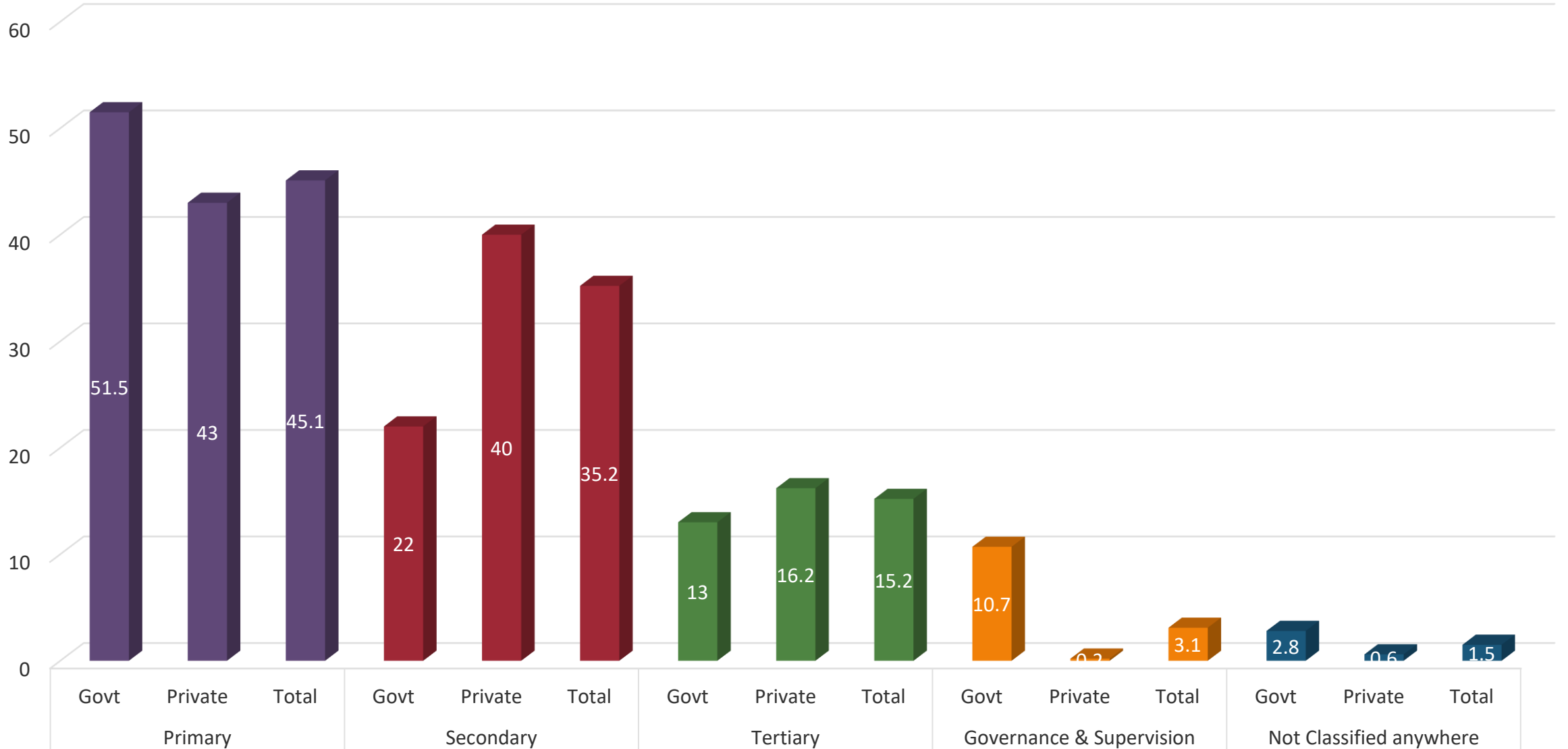
# Current Situation

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## Current Health Expenditure (2015-16) by Primary, Secondary, Tertiary Care (%)



# NSSO 2017-18

| Facility  | Public |       | Private |       |
|-----------|--------|-------|---------|-------|
|           | Rural  | Urban | Rural   | Urban |
| OPD Share | 33     | 26    | 63      | 73    |
| OOPE OPD  | 472    | 486   | 845     | 915   |
| IPD share | 46     | 35    | 54      | 65    |
| OOPE IPD  | 5729   | 5939  | 28816   | 34122 |

Poverty Headcount Ratio at international poverty line (\$1.90 a day) - reduced from 31.1% (2009) to 21.2% (2011) of total population (India)\*

Gini of wealth in India in 2017 is at 0.83, which puts India among countries with high inequality \*\*

\*\*<https://counterview.org/2018/04/04/gini-of-wealth-in-india>

# Strengthening of Secondary care Services

- Secondary Care services can not be strengthened in isolation
- We need a District Health action Plan which needs
  - Bed requirement (1:1000 Population which vision 2:1000 as per NHP 2017)
  - Meet the surgical need 4520 surgeries per 100000 population
  - Meet the emergency needs of the population – 15% of total population

# Need– District of 20 L population

## OT requirement

4520 surgeries per  
100000 population

124 Surgeries  
required per  
day

90400 surgeries per 2000000  
population

248 surgeries per day

public sector  
(50%) = 124

OT requirement (4 surgeries per day) = **31**

# Emergency care need for 20 lakhs

15% of the total population require emergency care

820 persons need per day emergency care

10 % of 850 may required constant monitoring care through HDU/ ICU

# IPHS Define

- Secondary Care Services include specialist care, operative services, blood transfusion facilities rendered through adequate infrastructure, HR, drugs, diagnostics and equipment.
- Indian Public Health Standards include 21 specialist services at the level of District Hospitals
- Out of these 21, at least 9 core specialities must be available at all DH:
  - General Medicine
  - General Surgery
  - Obstetrics & Gynaecology
  - Pediatrics
  - ENT
  - Orthopedics
  - Anesthesia
  - Ophthalmology
  - Pathology

# Classification

- **Categories of DH** have been formed for a population of:
  - less than 2 lakhs- 50 bedded hospital
  - between 2-5 lakhs – 100 bedded hospital
  - 5-10 lakhs – 200 bedded hospital
  - 10-20 lakhs – 300 bedded hospital
  - More than 20 lakhs – 400 & 500 bedded hospitals
- **SDH** can primarily be **50-100 bedded** for a population of 5 lakhs.
- **CHC** can be of **two types- FRU and non FRU**.
- The FRUs should be defined beyond Obstetric services and the first referral units should be such units where both elective and emergency surgical services of secondary level care are being provided with complimentary functional infrastructural, HR, equipment and support services.
- **PHC** can be of two types- **Day care (2-day care beds)** and **24\*7 (6 beds)**

# Norms for Number of Beds

- Provision of one bed per 1000 population is an 'essential' norm for every district while two beds per 1000 is a target they should aspire towards 'desirable'.
- All such beds where average length of stay is for more than twenty-four hours, considered as in-patient hospital beds (including critical care beds).
- Beds where the average length of stay is less than twenty-four hours (Emergency, LDR, dialysis and day-care) have not been counted as in-patient hospital beds.
- However, all such beds will be counted for budgetary allocation, provision of HR, and also clinical and other support services.
- Additional beds required if bed occupancy rate is more than 70%.



# Critical Care Area – Number of Beds

| Service Area                              | District hospital |           |           |           |           |           | Sub-District Hospital |
|---|-------------------|-----------|-----------|-----------|-----------|-----------|-----------------------|
|   | 50                | 100       | 200       | 300       | 400       | 500       | 100                   |
| <b>Emergency</b>                          |                   |           |           |           |           |           |                       |
| Red Zone                                  | 2                 | 3         | 5         | 5         | 8         | 8         | 3                     |
| Yellow Zone                               | 2                 | 5         | 10        | 10        | 12        | 12        | 5                     |
| Isolation Beds                            | 1                 | 1         | 2         | 2         | 2         | 2         | 1                     |
| Paediatric Beds                           | 1                 | 1         | 2         | 2         | 3         | 3         | 1                     |
| <b>Total Number of Emergency Beds</b>     | <b>6</b>          | <b>10</b> | <b>19</b> | <b>19</b> | <b>25</b> | <b>25</b> | <b>10</b>             |
| <b>Critical Care</b>                      |                   |           |           |           |           |           |                       |
| General HDU beds                          | 4                 | 4         | 5         | 6         | 8         | 8         | -                     |
| Isolation bed                             | 1                 | 1         | 1         | 2         | 2         | 2         | -                     |
| Paediatric HDU beds                       | -                 | 2         | 2         | 4         | 4         | 6         | -                     |
| General ICU beds                          | -                 | -         | 3         | 4         | 4         | 4         | -                     |
| Paediatric ICU beds                       | -                 | -         | 1         | 2         | 2         | 3         | -                     |
| Obstetric HDU beds                        | -                 | 6         | 7         | 7         | 8         | 10        | 5                     |
| Isolation unit                            | -                 | 1         | 1         | 1         | 2         | 2         | 1                     |
| Obstetric ICU beds                        | -                 | 2         | 2         | 4         | 6         | 6         | 2                     |
| Polytrauma Unit beds                      | -                 | -         | -         | -         | 4         | 4         | -                     |
| <b>Total Number of Critical Care Beds</b> | <b>5</b>          | <b>16</b> | <b>22</b> | <b>22</b> | <b>40</b> | <b>45</b> | <b>9</b>              |

Green Zone

Yellow Zone

Red Zone  
Intensive Care Unit (ICU)



# Other Principles - Infrastructure

- Optimal distribution of the total site area of a hospital complex should be the following:
  - ✓ 35% for plinth area including clinical, support services, residential area and knowledge hub.
  - ✓ 80% built up area to be allotted to 'core' patient services.
  - ✓ Rest should be vacant area out of which at least 10% is reserved for landscaping/garden.
- Vertical Expansion in areas of limited land availability.
- In adherence with NBC norms, fire, seismic and flood safety measures to be ensured
- Protocols for disaster preparedness, environmental and disable friendly features
- Critical care areas with adherence to zoning protocols
- Larger OPDs for Ophthalmology, Dental and maternity OPD.
- Support areas such as CSSD, Mechanized Laundry, Kitchen etc.
- Patient centric ambience including signage, parking, gardening, computerized registration, waiting area, BMW/ETP



# Prospective Plan |

# Other Principles – Human Resource

- Health systems approach for employing HR (range of services, case load, performance, accessibility and time to care) and not only on normative basis.
- The numbers of HR required at different facility levels to be based on clinical parameters e.g.
  - 60-70 patients per OPD session, a 70% bed occupancy rate, at least four major surgeries per OT session of six hours, IPD rounds for at least 20 patients per day. – 1 Specialist
  - 200 tests per Lab Technician
- Ratio for nursing staff using standard criteria (nurse : patient ratio of **1:1** for ICU settings, **1:2** for HDU and 1:6 for general wards. For pediatric cases, **1:3** for HDU(SNCU), 1:2 for ICU (PICU,NICU)

# HR Ratio

| Service Area | Type of Staff   | Ratio  |
|--------------|-----------------|--|
| Emergency    | Nurses          | Red+Yellow+Green+Triage + Isolation (At least 2 in each shift)                     |
|              | Medical Officer | 1:10   |
| HDU          | Nurses          | 1:2 (adult) + 1:3 (paed)   |
|              | Medical Officer | 1:10 (CEmONC trained for Obs HDU)  |
| ICU          | Nurses          | 1:1 adult + 1:2 paediatric   |
|              | Medical Officer | 1:10 (CEmONC trained for Obs ICU)  |
| SNCU         | Nurses          | 1:3  |
| NICU         | Nurses          | 1:2  |
| Wards/MNCU   | Nurses          | 1:6  |
| LDR          | Nurses          | 1:1<br>1:4 neonatal nurse  |
|              | Medical Officer | 1 :12 (CEmONC trained )  |
| Dialysis     | Nurses          | 1:3  |
| OT           | Nurses          | 2 per shift per OT + 2 pre/post op + 1 reception + 1 I/c                           |
| DEIC + NRC   | Nurses          | 2 + 3 (for 10 beds)  |
| OPD          | Nurses          | Nursing station, for checking vitals, dedicated for Ob/Gyn, FP, Immunization, NCD, |
| CLMC         | Nurses          | 5  |

# Other Principles – Drugs

- Adhering to 'Free Drug Initiative' of GoI, all essential medicines should be available free of cost in all public health facilities.
- Procurement, adequate storage space and systematic records need to be maintained.
- Facilities should have SOPs for indenting, stocking of medicines, near expiry and stockout, logistics for their stocking up and transportation.
- Indenting based on consumption, with at least 3 months of buffer stock should be robust and ideally through a centralized medicine purchasing and distribution system.
- Stores should be designed in such a way that spoilage, damage and other losses are minimized. Compactor system as compared to conventional racks may be used.
- Buffer stocks should be kept in separate spaces or cupboards in the drug store and basic principles like 'first expiry, first out' for drugs and vaccines should be followed.
- Drugs should not be stored in service areas for more than 7 days.
- **Relevant AYUSH drugs** should be available at facilities where AYUSH services are being provided.
- Prescription audit should be conducted on a regular basis.

# Other Principles –Diagnostics

- The diagnostics mentioned under IPHS should be included in the list of tests being offered at different levels of facilities.
- Districts should have an integrated lab consisting of both public health and clinical services.
- DH/SDH/FRUs should be functional for routine tests till OPD time and round the clock for emergency and critical tests.
- Additional diagnostic tests for the management of locally prevalent diseases should also be included.
- The test and test results should be provided to patients during the same working hours as the OPD and the availability of doctors to avoid repeated visits.
- ‘Hub’ and ‘spoke’ model for testing at public health facilities can be considered.
- Robust sample transportation plan with linkages for tests unavailable in-house.
- Along with lab services, imaging services such as Ultrasound, X-Ray, CT Scan etc. should also be provided while adhering to The Atomic Energy (Radiation Protection) Rules, 2004, promulgated under the Atomic Energy Act, 1962.
- It is mandatory for all users of imaging equipment to obtain requisite ‘Licence’ from AERB.

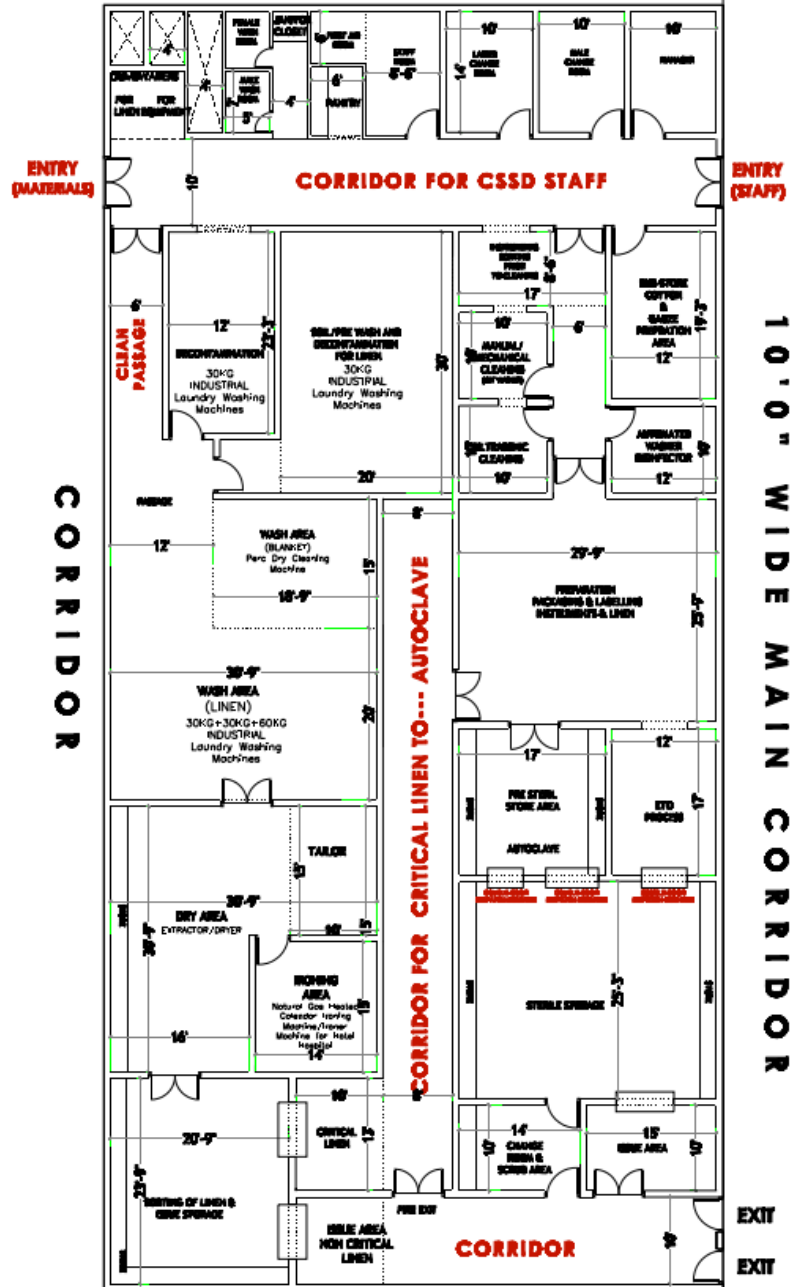
## **No. of Test to be performed at each level:**

1. DH- 130
2. SDH – 80
3. CHC – 78



# Other Principles – Equipment

- Gap analysis against IPHS should be conducted for all levels of facilities.
- A systematic and robust programme for bio-medical equipment maintenance and monitoring should be in place at all public health facilities.
- It is also essential that a condemnation policy is in place at all facilities so that the practice of out-of-use equipment and furniture being scattered around the facility is mitigated.
- A store should be identified to keep all the equipment separate from the drugs. A separate place should be marked for equipment to be condemned.



CENTRAL STERILE SERVICES DEPARTMENT (CSSD) 10600 SQFT



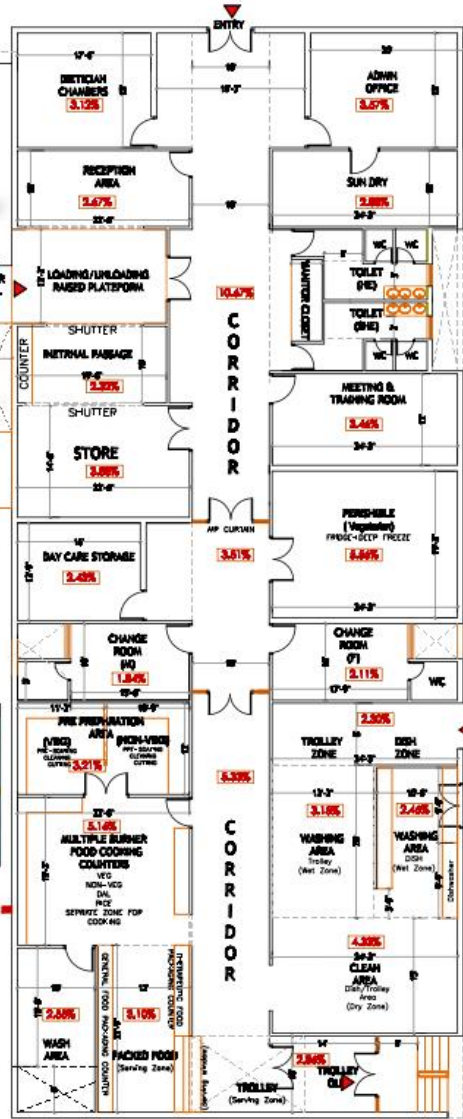
Support Services – CSSD  
& Mechanized Laundry

27.02.2018



TATA 407 CAPACITY  
DIMENSION SIZE OF  
9.9FT x 5.9FT x 5.9FT

LOADING  
UNLOADING  
AREA  
SORTING BUFFING  
BOYS



ROUGH LAYOUT PLAN

CORRIDOR



**DIETARY LAYOUT PLAN**  
**AREA-8400 SQFT**

# Support Services- Kitchen

# District hospital as a training hub for medical, nursing and paramedical courses

- DHs once strengthened for providing routine and basic specialist services could be upgraded as training and teaching site particularly for clinical learning.
- Capable to provide skill based in-service training and functions as a clinical training site for medical, paramedical and nursing programs
- The RKS of the DHs will be empowered for hiring of specialists, doctors, nurses to make the specialty functional.
- They can also purchase certain critical equipment and create critical infrastructure.
- DHs can be given Rs.5 crores for this and Rs. 1 crore for running paramedical/nursing courses.
- This can be implemented in phases and following programs can be implemented:
  - DNB/ CPS programmes for MBBS doctors
  - Specialty nursing programs: Neo-natal nursing, Midwifery nursing, O.T room nursing, Orthopaedic & rehabilitation nursing
  - Para-medical courses like MLT, X-ray/CT technicians, Renal dialysis technician, OT technician, Ophthalmic assistant
  - Nursing diploma program - GNM course

# Outcomes Envisaged

- For implementation, a flexible amount can be given with empowerment at the district level for its utilization and its envisaged outcome/performance on following parameters:
  1. Ability to provide all secondary and at least essential & critical special care services of tertiary level- so that most morbidities can be cured at DH level itself
  2. Provides adequate referral support for clinical care at primary care levels
  3. Ability to act as the preferred site for skill based in-service training
  4. Ability to act as the clinical training site for
    - ✓ Paramedical education programs
    - ✓ Nursing school and college

# Outcomes Envisaged

## **Other outcomes**

- This initiative can be made a self-sustainable initiative by reserving seats for private students who can be charged by respective DHS/RKS
- The initiative will result in availability of additional skilled HR, help in career progression of existing staff
- All these steps will enable development of DH as a District Resource Centre ultimately

Strengthening of  
Secondary Care  
will help in  
reducing  
inequality

