

Infrastructure needs of Obstetric Centers

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Introduction

- Quality of any service is influenced by
 - Competencies of service provider
 - Availability of resources
 - Presence of an enabling environment
- Many initiatives have been taken for improving competencies but activities to improve enabling environment have not received adequate attention

Quality of Care

WHAT DO WE MEAN BY
Quality Healthcare?



- Quality of Provision of Care
- **Quality of Care as experienced by beneficiaries**

Infrastructure needs of Obstetric Centres

ANC OPDs

IPD for high-risk antenatal mothers

Labour areas : conventional labour room/LDR

Obstetric HDU/ICU

Labour OT

Blood bank/Blood storage unit

Inborn nursery, SNCU, NICU, MNCU, Milk bank

IPD Postnatal mother baby dyads

PNC OPDs

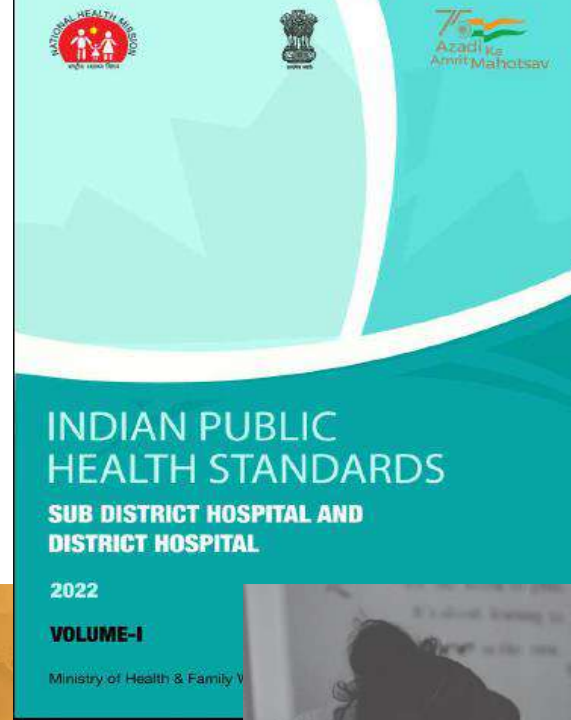
Signages

Counselling room with audio video recording

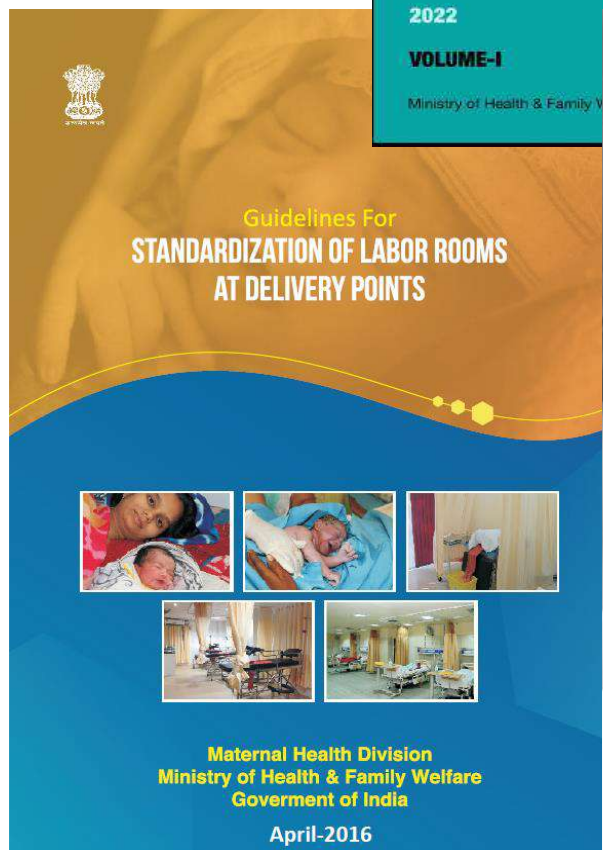
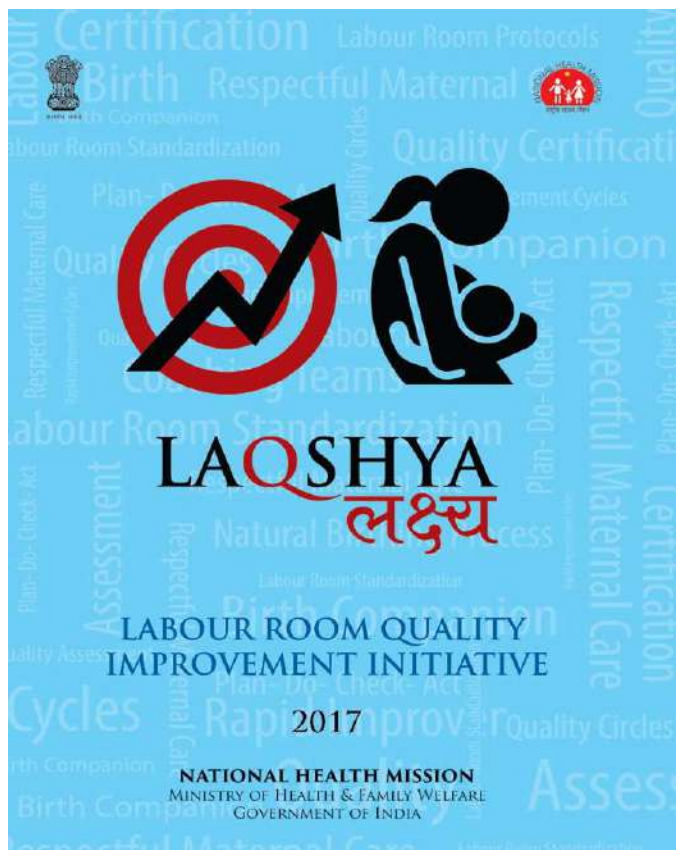
CSSD, Lab 24x7, Imaging

Skill lab

Guidelines



DAKSHATA
Empowering Providers for Improved
MNH Care during Institutional Deliveries
3 Days Technical Update cum Skills Standardization Training



Triaging Pregnant Women



Midwifery Led Obstetric care

- Midwives can provide 87% of the essential care for women and newborns, when educated and regulated to international standards
- This is the most cost-effective healthcare providers for childbearing women.

WHO, 2016

- A midwifery unit (MU) is a location offering maternity care to low risk pregnant women in which midwives take primary professional responsibility for care.
- Midwifery units may **Free standing** (be located away from) or **Alongside** (adjacent to an obstetric service)

Midwifery Unit Network: midwifery unit standards. 2018

Components of Obstetric Care

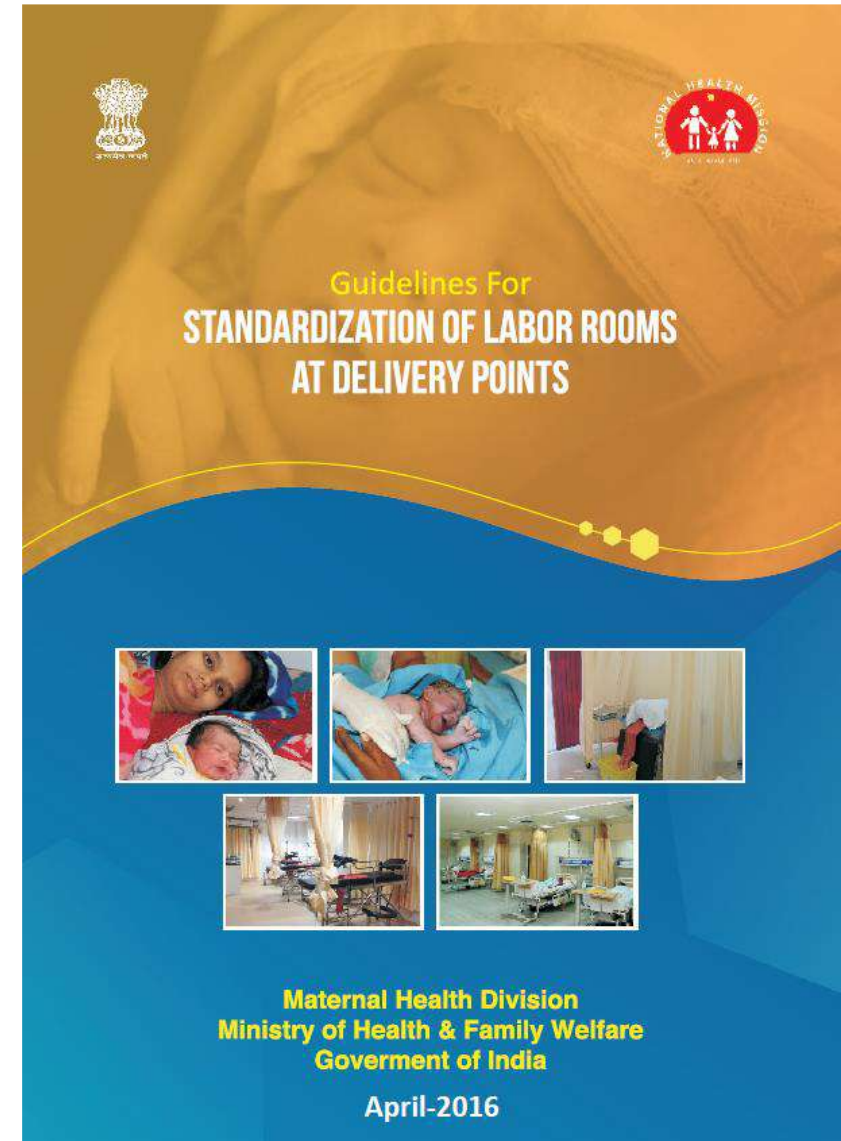
Obstetrics consists of the following processes:

- Labour
- Delivery/ Birthing
- Recovery
- Postnatal (or Post-Partum)

Additional components for high-risk cases

- Baby nursery
- SNCU/NICU
- MNCU
- Obstetric HDU/ICU

- Labour rooms are fundamental to providing quality intrapartum and immediate postpartum services
- They play an important role in reducing maternal and neonatal mortality
- It is essential that LRs are structured and organized for high efficiency and high quality service delivery





Labour Areas

Core labour
area

- Conventional /LDR

Support
areas

- Reception, triage with patient changing room and toilets, duty rooms with toilets, shoe changing room, changing room, store, AHU, dirty utility room, clean utility room, procedure room

Obstetric Care Models

- Traditional/ conventional

- Pregnant woman admitted at or near full dilatation of cervix and transferred to postnatal ward after 2 hrs
(8hrs = 0.33 day)

- Contemporary :

- LDR Labour delivery recovery concept

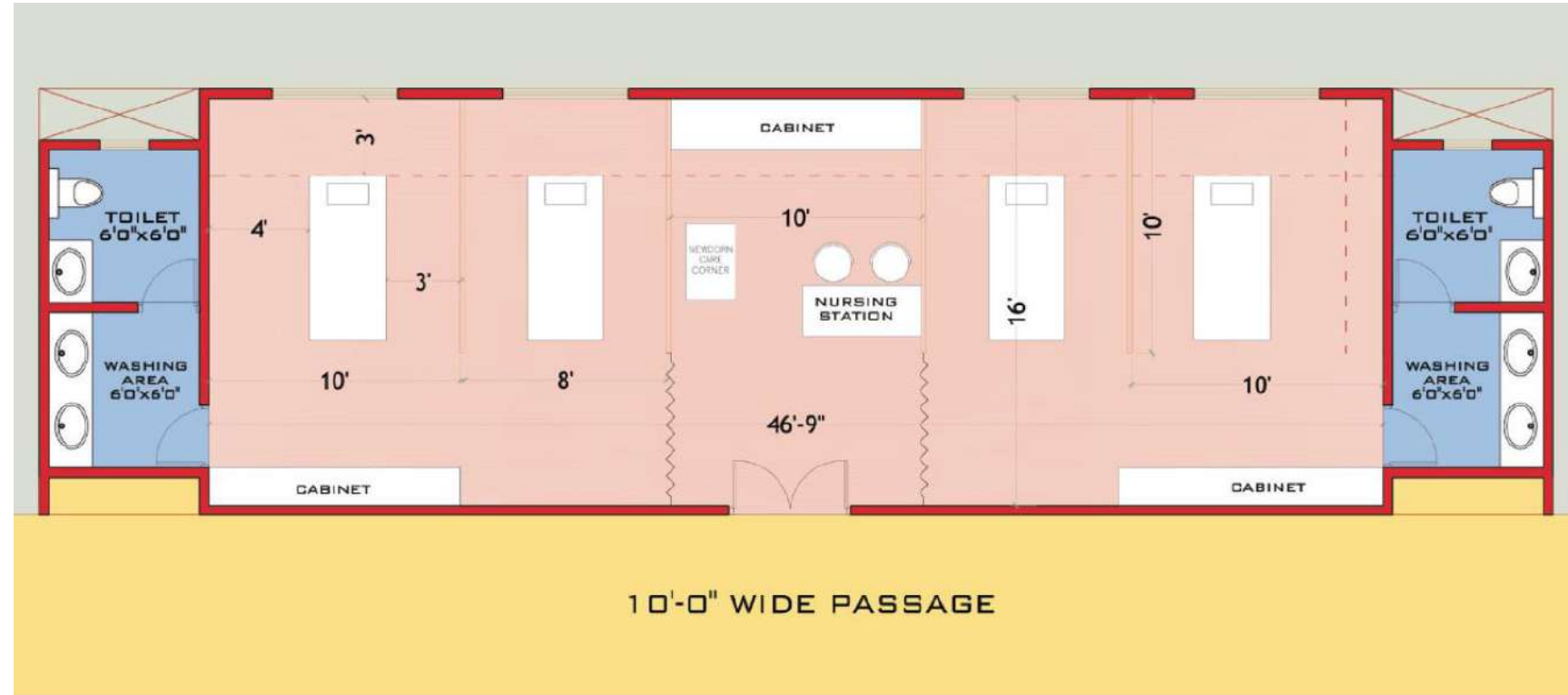
- Pregnant woman spends the duration of labour, delivery and 4hrs postpartum in the same room
(16 hrs=0.67 day)

- LDRP Labour delivery recovery postnatal concept

- Here the pregnant woman stays from her admission in labour to discharge of her and her baby from the facility

Standard LDR unit

- 4 Labour areas with one labour beds each
- One nursing station
- One new born care area
- Two toilets
- Two washing areas



- 1000sq ft

Conventional LR

- Labour table
- Nursing station
- New born corner
- Toilet



- 350 sq ft

Calculating the number of labour tables required at a facility

Criteria	Number of labor table(s)
<20 Deliveries/month	1
20-99 Deliveries/month	2
100-199 Deliveries/month	4*
200-499 Deliveries/month	6*
>500 Deliveries/month	To be calculated as per the given formula for LDR or Conventional Labor Room concept as applicable
FRU CHC/AH/SDH/DH	To be calculated as per the given formula for LDR or Conventional Labor Room concept as applicable

Formula for calculating no. of labour beds at a facility

- No. of labour beds

projected labour events in a year x average length of stay

365 x occupancy rate

Projected labour events : No. of vaginal births and unplanned CS

Average length of stay: 0.33 days or 8 hrs (4 hrs predelivery preparation and delivery and 4 hrs recovery and cleaning of LR) for conventional LR and 0.67 days or 16 hrs (12 hrs labour and delivery and 4 hrs recovery and cleaning of LR) for LDR

Occupancy rate: 75% or 0.75 recommended occupancy rate for health facilities

Example

For example, LDR bed requirement for a hospital with 7200 projected deliveries (6120 normal deliveries 1080 C-sections out of which 600 are unplanned C-sections) can be calculated as follows:

- Number of LDR events in a year: $(6120+600) = 6720$
- Number of LDR beds required = $(6720 * 0.67) / (365 * 0.75) = 16$ beds

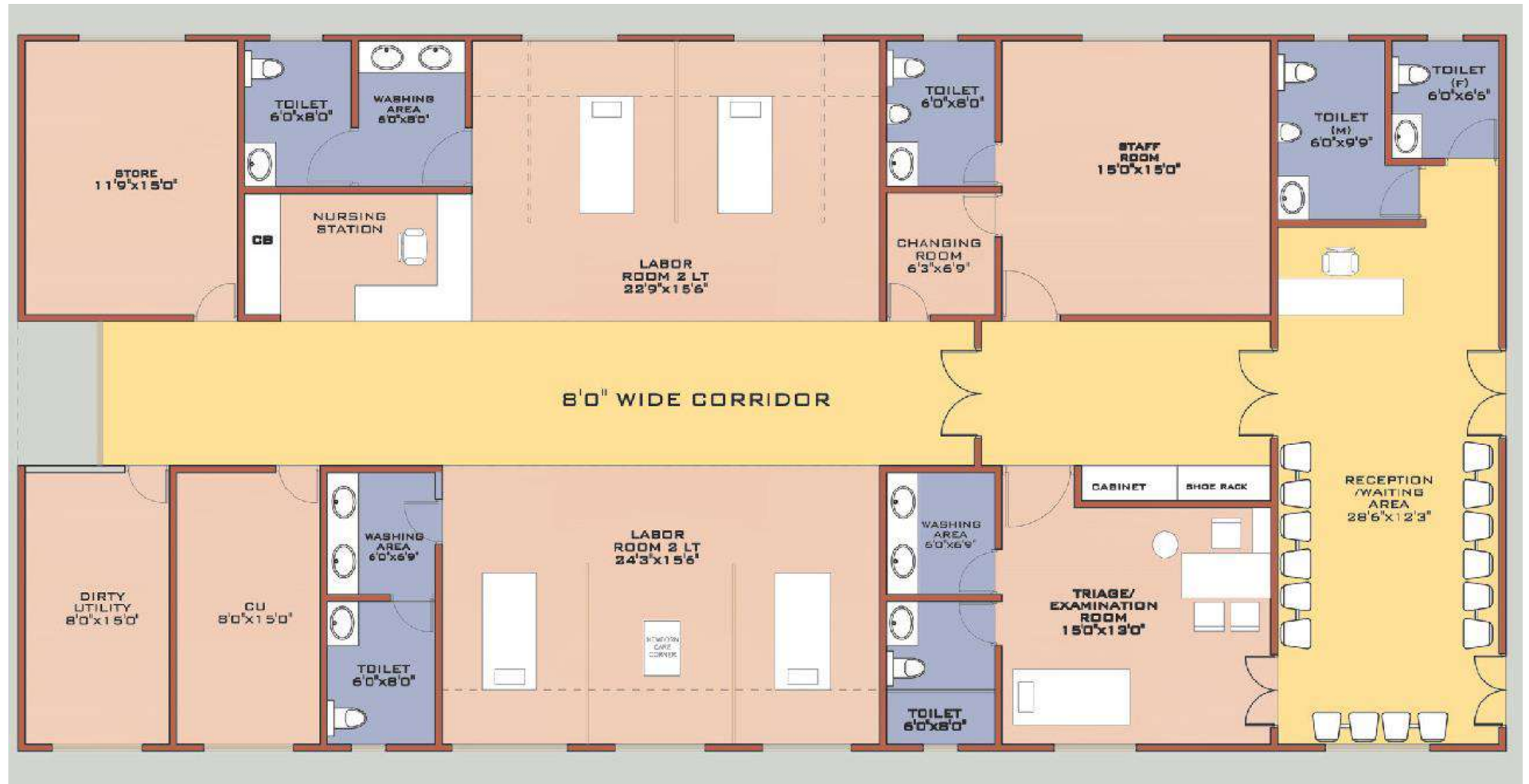
Formula for calculating number of LDR units:

As per specifications given in the next section, each LDR unit will have 4 LDR beds. Thus the formula for **calculation number of LDR units will be as follows:**

Number of LDR units = $(\text{Number of LDR beds}/4)$ rounded off to the next higher integer

Example: In the above example, the number of LDR beds was 16. Hence, in this facility, the number of LDR units will be = $(16/4)$ rounded off to next higher integer = 4.

Conventional LR CHC



- Core LDR
- Support areas

LDR FRU-CHC/AH/SDH

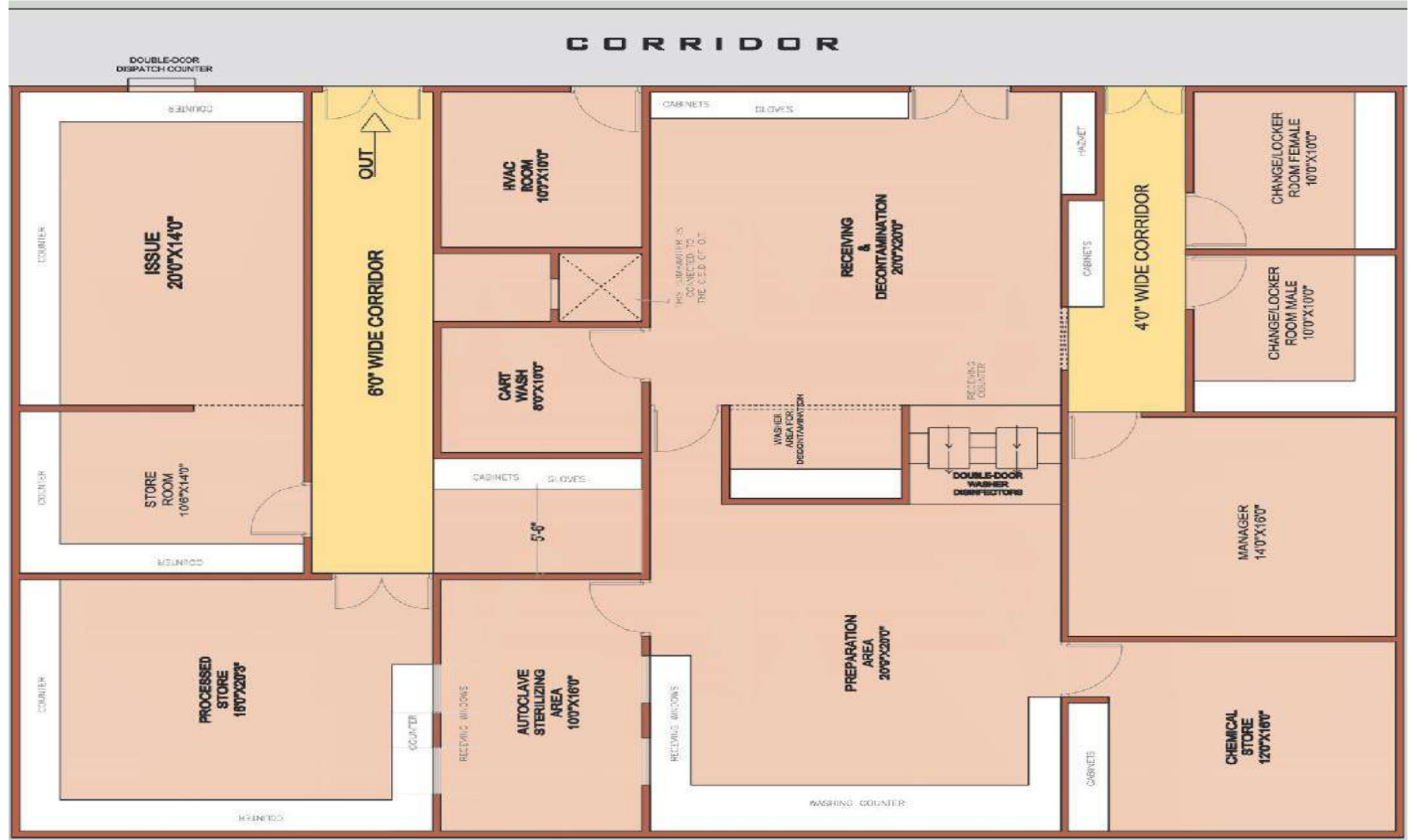


- Core LDR
- Support areas

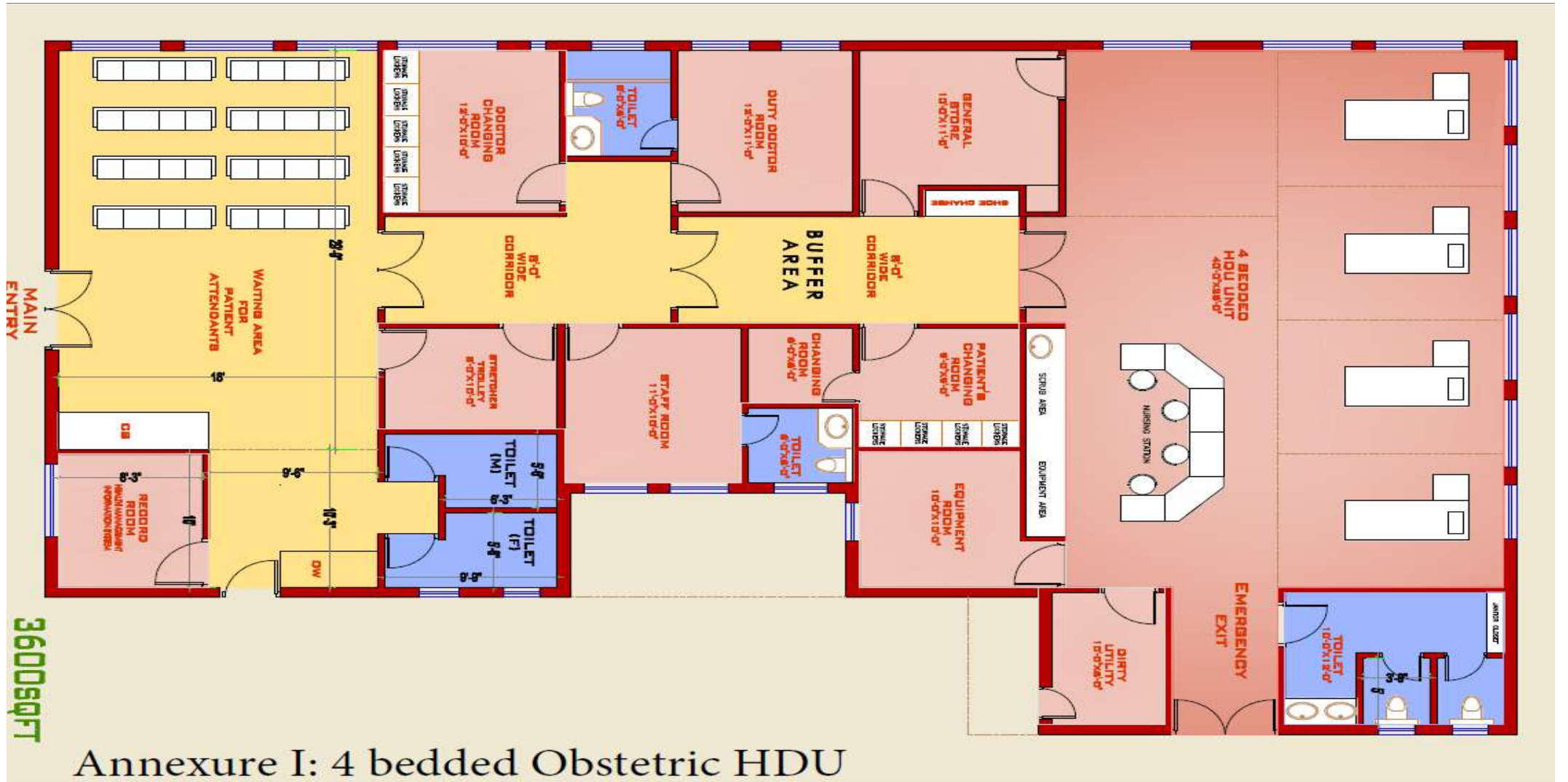
Other important components

- Lighting
- Power back up
- CCTV

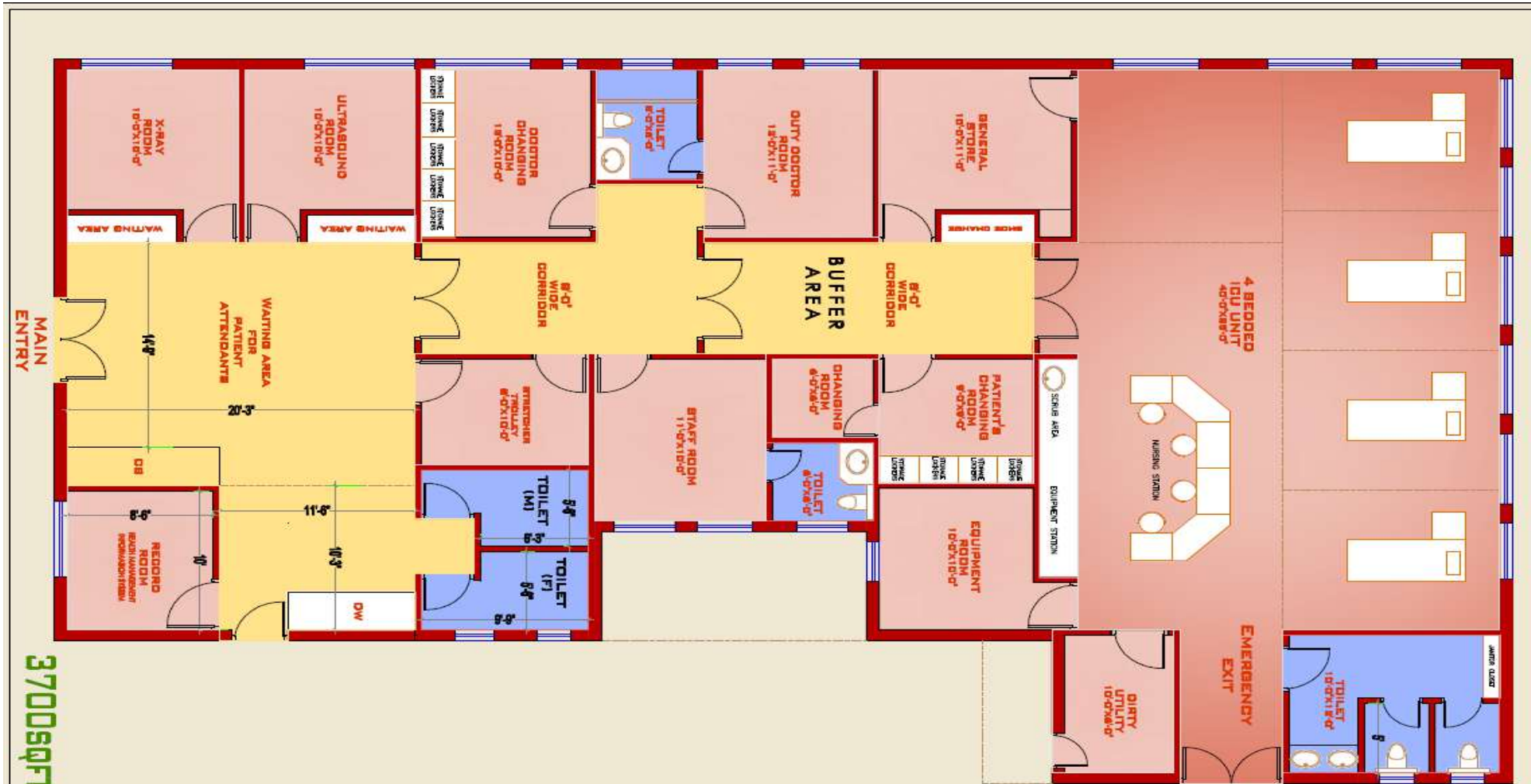
CSSD



Obstetric HDU



Obstetric ICU



3700sqft

Annexure III: 4 bedded Obstetric ICU

To conclude

- Obstetrics services are special as the pregnancy is a normal physiological process and pregnant women are often young and healthy
- The process of labour is arduous and psychological support and surrounding environment plays an important role in facilitating delivery and woman's experience of care
- The woman's experience in labour determines her health seeking behaviour for herself and her new-born
- Hence it is important that woman is at ease in any obstetric facility
- Infrastructure of every obstetric facility must be planned to provide quality care to all pregnant women... safe, efficient, timely, effective, equitable, evidence based and client centric