



Maternal and Newborn Health Toolkit



*To provide quality maternal and newborn health services
at health facilities in India*

Maternal Health Division
Ministry of Health & Family Welfare
Government of India

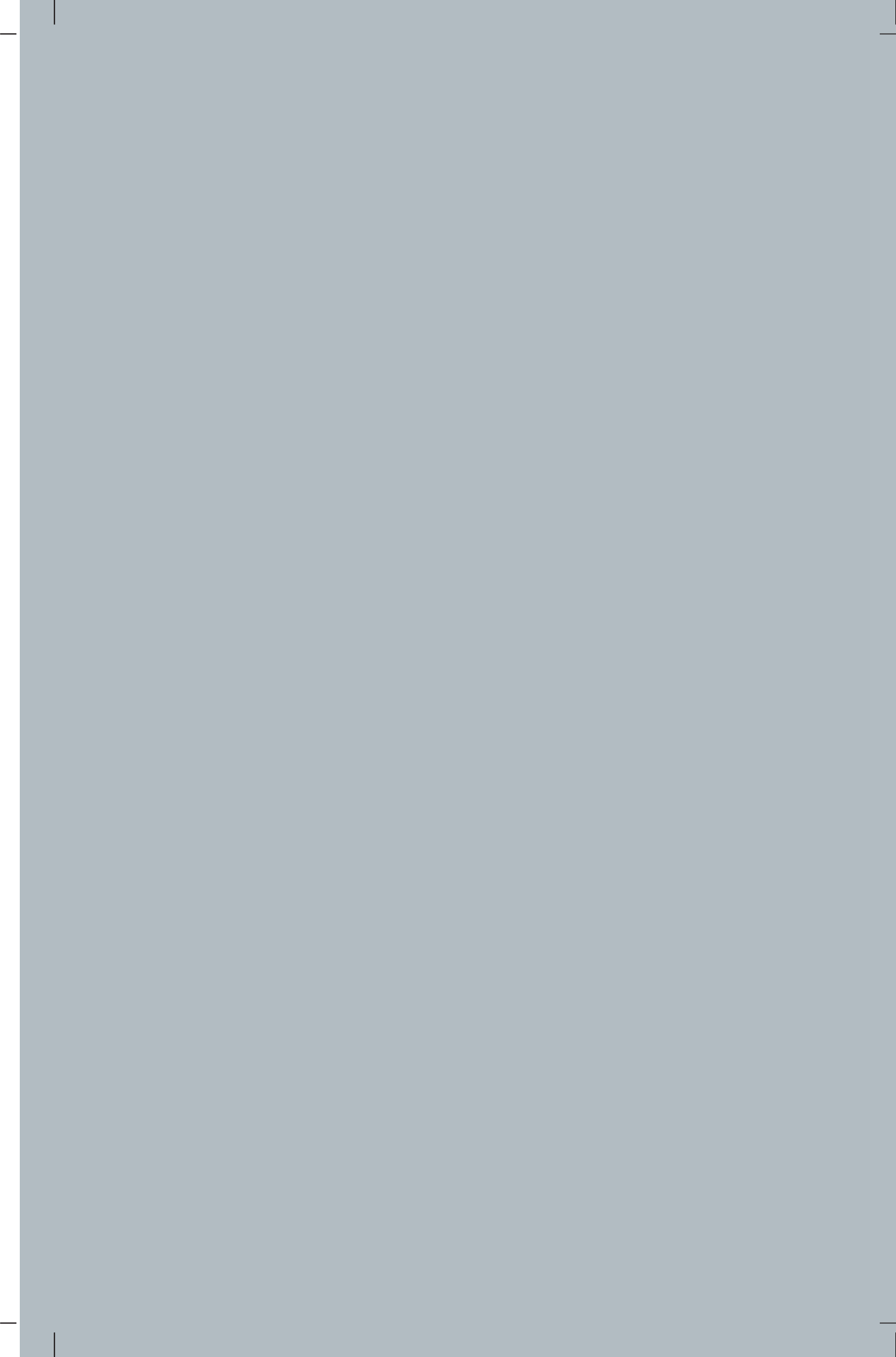
January 2013



Maternal and Newborn Health Toolkit

*To provide quality maternal and newborn health services
at health facilities in India*

Maternal Health Division
Ministry of Health & Family Welfare
Government of India
January 2013





Anuradha Gupta, IAS

Additional Secretary &

Mission Director, NRHM

Telefax : 23062157

E-mail : anuradha-gupta@hotmail.com



भारत सरकार
स्वास्थ्य एवं परिवार कल्याण मंत्रालय
निर्माण भवन, नई दिल्ली – 110108
Government of India
Ministry of Health & Family Welfare
Nirman Bhavan, New Delhi - 110108

PREFACE

With the launch of many new initiatives such as Janani Suraksha Yojana (JSY) and Janani Shishu Suraksha Karyakram (JSSK) there has been a sharp surge in institutional deliveries across States. Several steps have been taken to cope with the increasing case loads at public health facilities. As a major beginning, 100 bedded Maternal & Child Health Hospitals wings have been sanctioned in this year which will add more than 25,000 beds for mothers and children in a bid to improve the quality of services.

Our past experience indicates that lack of standardization of design in terms of infrastructure, equipment, HR, infection prevention and control and also referral models have been major bottlenecks in ensuring quality maternal and neonatal health services.

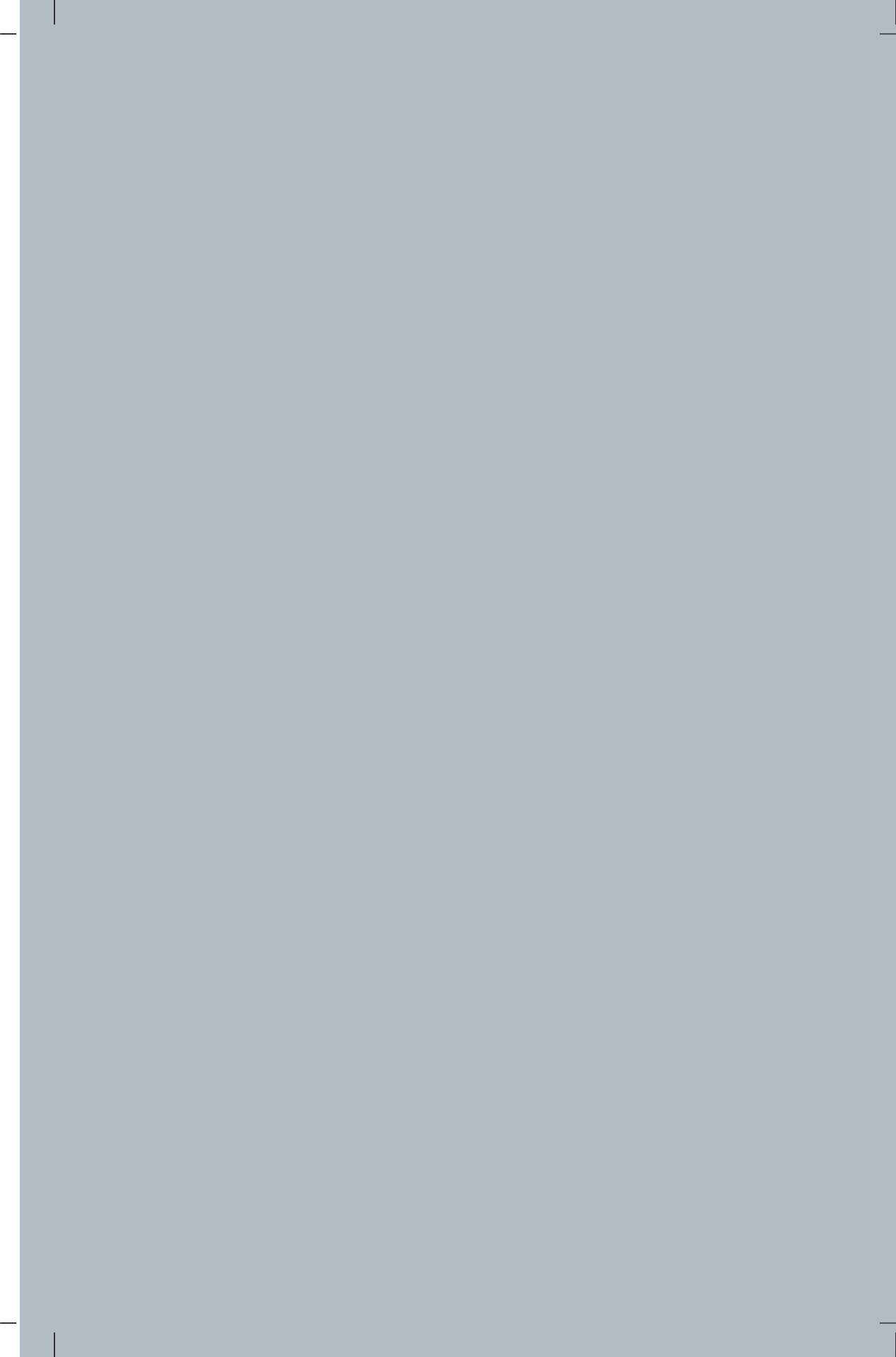
Maternal Health Division therefore embarked on extensive deliberations with experts, development partners and other stakeholders in designing a Mother & Newborn Health (MNH) Toolkit which lays out in detail uniform and standard designs and protocols for setting up state of the art maternal and newborn facilities at different levels. The toolkit would also be useful for improving the existing Labour room/OT/wards.

Improving quality has a special focus in the 12th Five Year Plan and is an important conditionality in this year's ROP. I would therefore hope that the state policy makers and programme managers would use this tool kit optimally. The MNH toolkit, I am sure will help in planning and operationalizing safe motherhood services with dignity and quality for lakhs of women approaching public health maternity facilities in all the States.

(Anuradha Gupta)

New Delhi

11.01.2013





Dr. RAKESH KUMAR, I.A.S.
JOINT SECRETARY
Telefax : 23061723
E-mail : rkumar92@hotmail.com



भारत सरकार
स्वास्थ्य एवं परिवार कल्याण मंत्रालय
निर्माण भवन, नई दिल्ली – 110108
Government of India
Ministry of Health & Family Welfare
Nirman Bhavan, New Delhi - 110108


FOREWORD

Timely provision of emergency obstetric care and routine essential obstetric and newborn care are the key strategies for reduction of Maternal and Neonatal morbidity and mortality. Mother and newborn is a dyad, hence the service packages should be designed to provide care to the mother from antenatal to postnatal period. Essential newborn care should start soon after delivery and continue thereafter.

However, during various field visits (such as JRM, CRM, IMT) it has been observed that there are weakness and substantial gaps in the type of care provided during pregnancy and childbirth. One of the reasons being lack of orientation of state programme officers in effective planning for provision of quality maternal and newborn health services at public health facilities.

The toolkit aims to provide knowledge/information on standardized maternal and neonatal care package across the country to provide quality services at public health institutions. Most of the information given in this toolkit has been taken out from the existing various guidelines. The additions however are on making state of the art MCH wing, labour room, ward, and OT etc, with complete technical protocols in place.

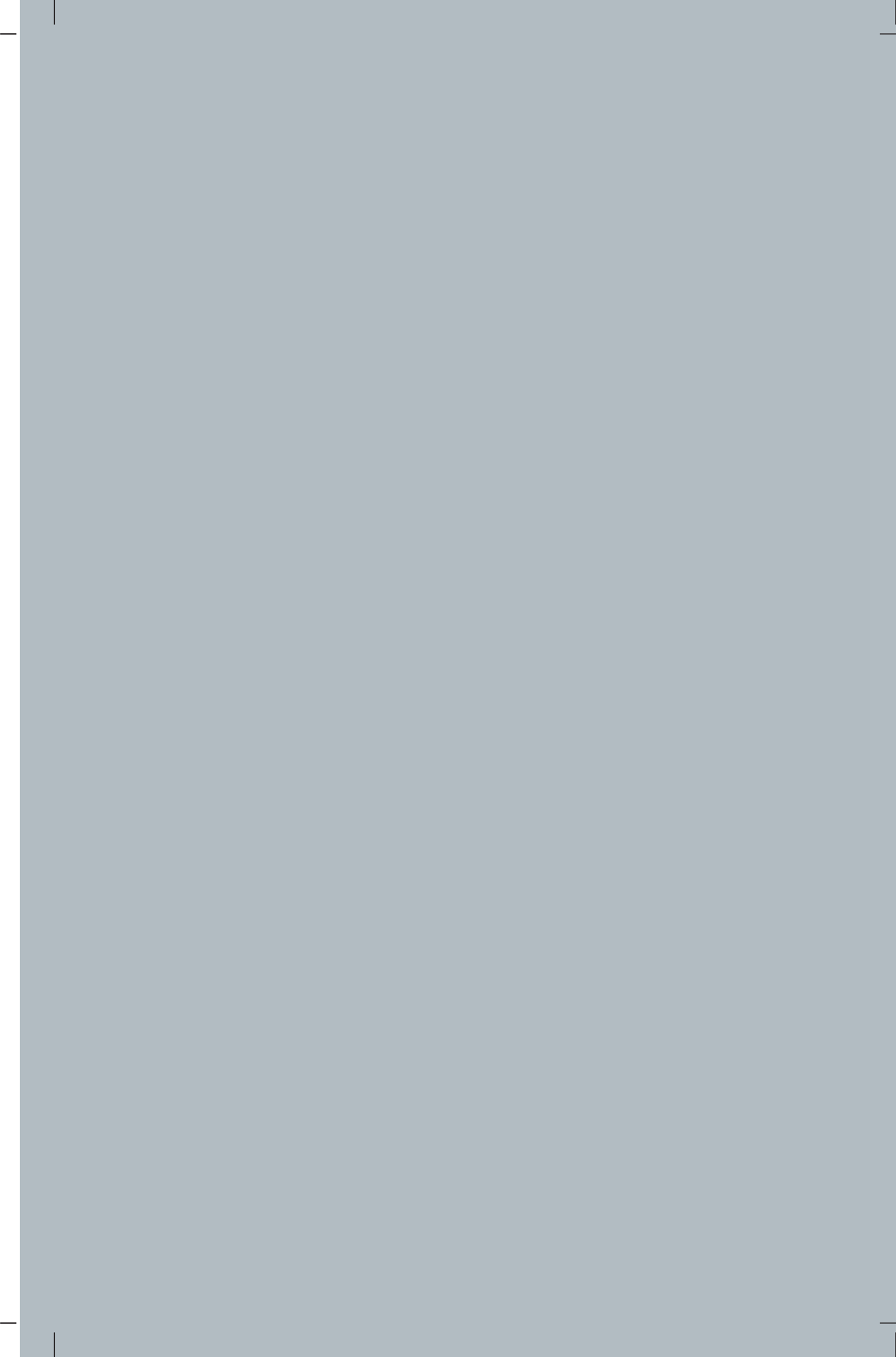
The MNH toolkit will help the programme officers in operationalizing the health facilities in providing quality care to the best of client satisfaction.


(Dr. Rakesh Kumar)

Healthy Village, Healthy Nation



एड्स – जानकारी ही बचाव है
Talking about AIDS is taking care of each other





Dr. H. BHUSHAN

Deputy Commissioner (MH)

Telefax : 23062930

E-mail : drhbhushan@gmail.com



भारत सरकार
स्वास्थ्य एवं परिवार कल्याण मंत्रालय
निर्माण भवन, नई दिल्ली – 110108
Government of India
Ministry of Health & Family Welfare
Nirman Bhavan, New Delhi - 110108

ACKNOWLEDGEMENT

To accelerate the decline in MMR it is necessary to improve the quality of care being rendered at the public health facility. During the field visits, it has been observed that there is a lack in knowledge on how to design and place a client friendly facility which renders quality services with dignity and respect to the mother and baby.

The Maternal and Newborn Health toolkit has been developed to help programme managers and clinicians in organizing the critical areas of service provision as per standards laid down in the toolkit for Maternal and Neonatal Health (MNH) services in the States and districts. These guidelines for toolkit have come up after thorough deliberations and sustained efforts of Maternal Health Division of this Ministry and other stakeholders.

I would like to express my sincere gratitude to Ms. Anuradha Gupta, AS & MD, NRHM, GOI for conceptualizing this idea and guiding us in preparing this toolkit with special focus for improving the condition and protocols of labour room. I would also like to thank Dr. Rakesh Kumar, JS (RCH), MOHFW for his regular technical guidance and administrative support in completing this process of developing toolkit.

I would also like to acknowledge the support given by Mission Director (NRHM), Govt. of Maharashtra and Mission Director (NRHM), Govt. of Madhya Pradesh for facilitating the deliberations and technical assistance. I would like to acknowledge the contribution of UNICEF particularly Dr. V. K. Anand, Dr. Malalay Ahmadzai & Dr. Ritu Agarwal in initiating the process and technical inputs. The support and inputs given by the technical officers of development partners i.e. UNFPA, WHO, has been valuable. I must thank Dr. Bulbul Sood, Country Director, JHPIEGO and her team for their proactive support in framing these guidelines.

My sincere thanks to Dr. P. Padmanaban, and Mr. K. Prasanth from NHSRC who always joined the expert group deliberations even though they had to cancel their other commitments. I must acknowledge the fact that all the National and State experts participated in the deliberations particularly Dr. Aboli Gore, MP TAST, Dr. Archana

Mishra, DD(MH), Govt. of MP, Dr. Alka Gupta, Govt. of Chhattisgarh, Dr. Poonam Shivkumar, MGIMS Sewagram, Dr. Manju Chuggani, Principal, Jamia Hamdard College of Nursing, for their valuable inputs.

I would like to appreciate the contribution given by Child Health and Family Planning Division of this Ministry for their contribution in framing these guidelines. The technical support given by Dr. Manisha Malhotra, DC(MH), Dr. Dinesh Baswal, DC(MH), Dr. Ravinder Kaur, Dr. Pushkar Kumar, and Dr. Rajeev Agarwal, all Senior Consultants MH Division, helped in firming the technical components and also in bringing final edited version of this document.

It is my earnest request to all the States Mission Directors and Program Officers to take personal initiative in changing the outlook of maternity wing particularly Labour Room, OT, Wards as per the standards given in the guidelines so that Standard treatment protocols are followed in order to ensure quality service to every pregnant women, mothers and newborn accessing public health facilities.



(Dr. H. Bhushan)

New Delhi
Dated 11.01.013

List of Contributors

1	Ms. Anuradha Gupta	AS & MD, MoHFW
2	Dr. Rakesh Kumar	JS, RCH, MoHFW
3	Dr. Himanshu Bhushan	DC (MH), MoHFW
4	Dr. Manisha Malhotra	DC (MH), MoHFW
5	Dr. Dinesh Baswal	DC (MH), MoHFW
6	Dr. S. K. Sikdar	DC (FP), MoHFW
7	Dr. P. K. Prabhakar	DC (CH), MoHFW
8	Dr. P. Padmanaban	Advisor, NHSRC, MoHFW
9	Mr. K. S. Prasanth	Senior Consultant, NHSRC, MoHFW
10	Dr. Manju Chhugani	Principal, Jamia Hamdard
11	Dr. Archana Mishra	DD (MH), GoMP
12	Dr. Alka Gupta	DD (MH), Government of Chattisgarh
13	Dr. Poonam Varma Shivkumar	Prof. Of OBGY, MGIMS, Wardha
14	Dr. Dinesh Agarwal	UNFPA
15	Dr. Aboli Gore	MP- TAST, Bhopal
16	Dr. Malalay Ahmadzai	UNICEF
17	Dr. Pavitra Mohan	UNICEF
18	Dr. V. K. Anand	UNICEF
19	Dr. Ritu Agrawal	UNICEF
20	Dr. Bulbul Sood	Country Director Jhpiego
21	Dr. Somesh Kumar	Jhpiego
22	Dr. Rashmi Asif	Jhpiego
23	Dr. Ravinder Kaur	Sr. Consultant, MH, MoHFW
24	Dr. Pushkar Kumar	Lead Consultant, MH, MoHFW
25	Dr. Renu Shrivastava	Consultant, CH Division, MoHFW
26	Dr. Rajeev Agarwal	Sr. Mgt. Consultant, MH, MoHFW

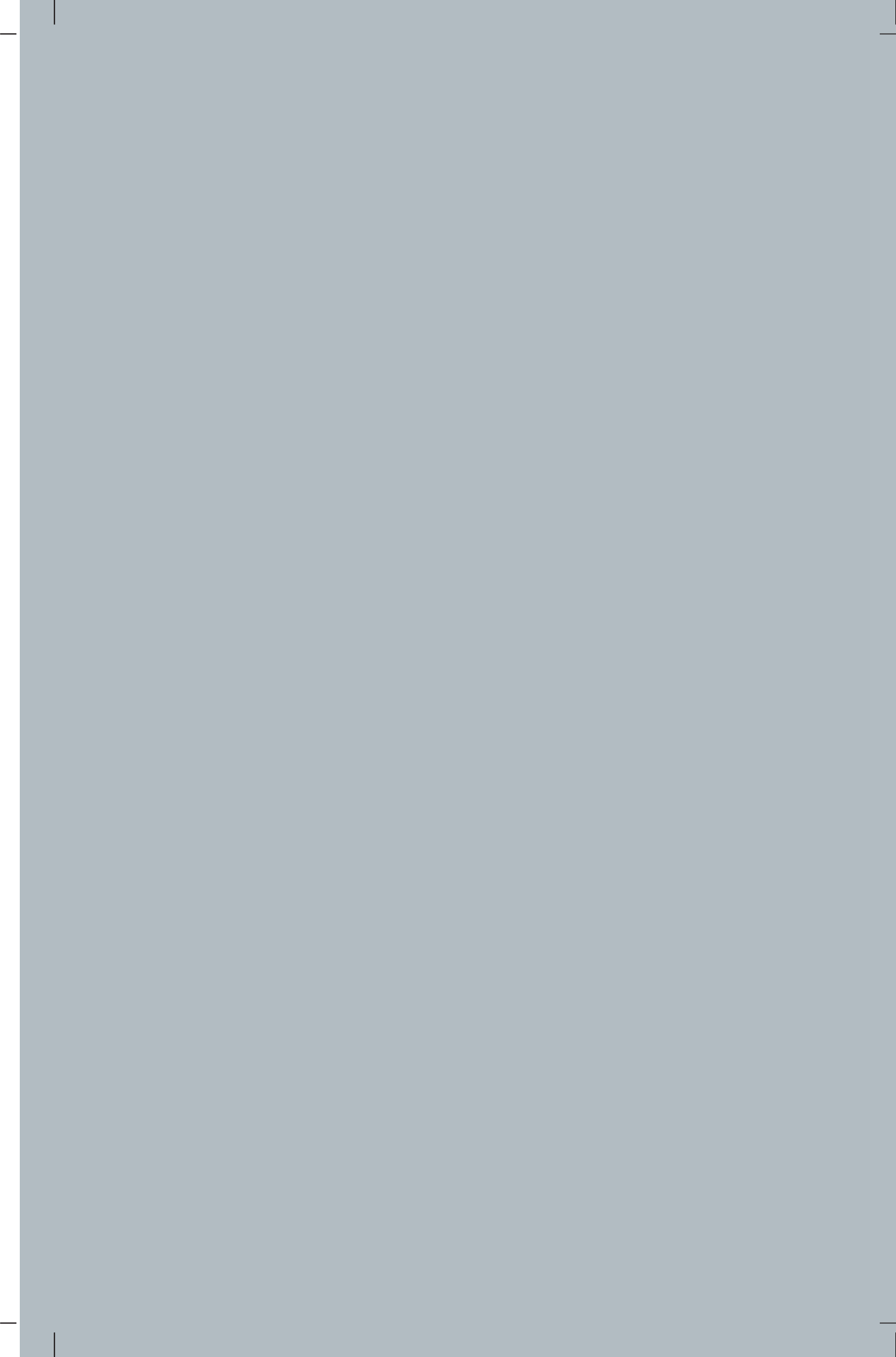
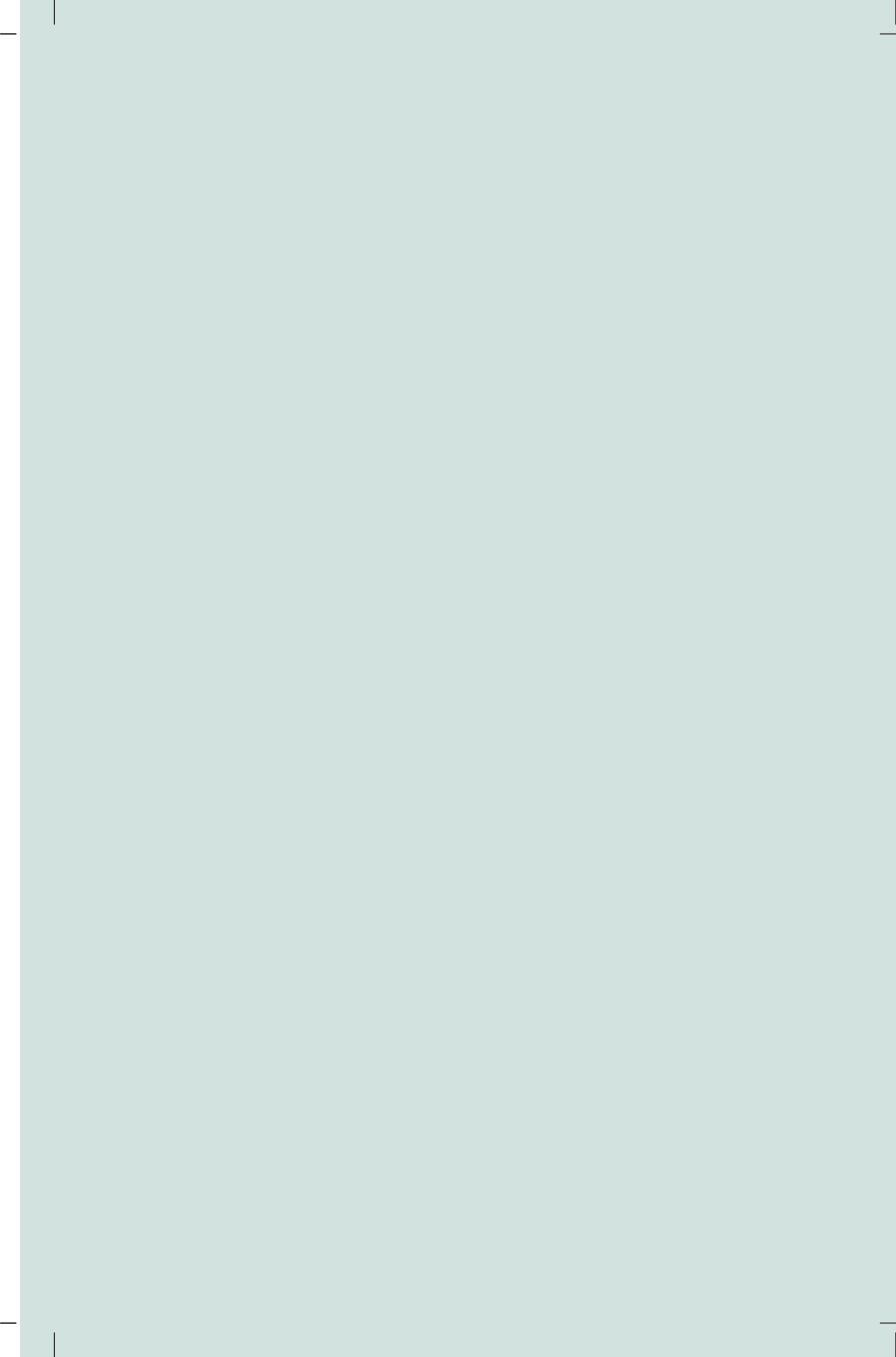


Table of Contents

<i>Abbreviations</i>	<i>xiii</i>
Introduction	1
Chapter 1	
Planning and Organizing MNH Services	17
Chapter 2	
Infection Prevention	61
Chapter 3	
Capacity Development	67
Chapter 4	
Reporting and Recording System	73
Chapter 5	
Referral Transport	79
Chapter 6	
Quality Assurance	83
Annexures	87



Abbreviations

AMTSL	Active Management of Third Stage of Labour	CTT	Conventional Tubectomy
ANC	Ante Natal Care	DDK	Disposable Delivery Kit
ANM	Auxiliary Nurse Midwife	DEO	Data Entry Operator
ART	Anti-Retroviral Therapy	DH	District Hospital
ASHA	Accredited Social Health Activist	DLHS	District Level Health Survey
AWC	Anganwadi Centre	DP	Delivery Point
BEmOC	Basic Emergency Obstetric Care	EDD	Expected Date of Delivery
BMO	Block Medical Officer	EDL	Essential Drug List
BP	Blood Pressure	EmOC	Emergency Obstetric Care
BPL	Below Poverty Line	ENBC	Essential New Born Care
BSU	Blood Storage Unit	EVA	Electric Vacuum Aspiration
CBR	Crude Birth Rate	FIGO	International Federation of Gynaecology and Obstetrics
CEmOC	Comprehensive Emergency Obstetric Care	FIMNCI	Facility based Integrated Management of Neonatal & Childhood Illnesses
CFL	Compact Fluorescent Lamp	FP	Family Planning
CHC	Community Health Centre	FPOT	Family Planning Operation Theatre
CMO	Chief Medical Officer		
CS	Civil Surgeon		
CSSD	Central Sterile Supply Department		

FRU	First Referral Unit	IPHS	Indian Public Health Standards
GoI	Government of India	IU	International Unit
Hb	Hemoglobin	IUCD	Intra Uterine Contraceptive Device
HBNC	Home Based Newborn care	IV	Intra Venous
HIV/AIDS	Human Immuno deficiency Virus/ Acquired Immune Deficiency Syndrome	JSSK	Janani Shishu Suraksha Karyakram
HLD	High Level Disinfection	JSY	Janani Suraksha Yojana
HMIS	Health Management Information System	KMC	Kangaroo Mother Care
HR	Human Resource	L1, L2, L3	Level 1, Level 2, Level 3
I/C	In-Charge	LBW	Low Birth Weight
ICTC	Integrated Counselling and Testing Centre	LCD	Liquid Crystal Display
ICU	Intensive Care Unit	LHV	Lady Health Visitor
IEC	Information, Education and Communication	LR	Labour Room
IFA	Iron and Folic Acid	LSAS	Life Saving Anesthesia Skills
IMEP	Infection Management and Environment Plan	LSCS	Lower Segment Caesarian Section
IMNCI	Integrated Management of Neonatal & Childhood Illnesses	LT	Lab Technician
IMR	Infant mortality Rate	LTT	Laparoscopic Tubectomy
INC	Intra Natal Care	MCH	Maternal and Child Health
IPD	Inpatient Department	MCP	Mother & Child Protection
		MCTS	Mother and Child Tracking System

MDG	Millennium Development Goal	NRHM	National Rural Health Mission
MDR	Maternal Death Review	NSSK	Navjat Shishu Suraksha Karyakram
MH	Maternal Health	NSV	Non Scalpel Vasectomy
MMR	Maternal Mortality Ratio	Ob/Gyn/OBG	Obstetrician and Gynecologists
MNH	Maternal & Neonatal Health	OPD	Out Patient Department
MO	Medical Officer	OT	Operation Theatre
MoHFW	Ministry of Health and Family Welfare	P/V	Per Vaginum
MP	Malaria Parasite	PEP	Post Exposure Prophylaxis
MPW	Multipurpose Worker	PHC	Primary Health Centre
MTP	Medical Termination of Pregnancy	PIH	Pregnancy Induced Hypertension
MVA	Manual Vacuum Aspiration	PNC	Post Natal Care
NBCC	Newborn Care Corner	PPIUCD	Post-partum Intra Uterine Contraceptive Device
NBSU	New Born Stabilization Unit	PPS	Post-partum Sterilisation
ND	Normal Delivery	PPOT	Post-partum Operation Theatre
NACO	National Aids Control Organization	PW	Pregnant woman
NFHS	National Family Health Survey	PPH	Post-partum Haemorrhage
NG	Naso Gastric	PPTCT	Preventing Parent to Child Transmission
NMR	Neonatal Mortality Rate	RCH	Reproductive and Child Health Programme
NRC	Nutritional Rehabilitation Centre		

RDK	Rapid Diagnostic Kit	SHCs	Sub Health Centre
RGI	Registrar General of India	SDH	Sub District Hospital
RMNCH	Reproductive Maternal Newborn and Child Health	SN	Staff Nurse
RPR	Rapid Plasma Reagin	SRS	Sample Registration System
RTI/STI	Reproductive Tract Infection/ Sexually Transmitted Infection	TT	Tetanus Toxoid
SBA	Skilled Birth Attendant	TV	Television
SC	Sub Centre	U5MR	Under-5 Mortality rate
SM	Safe Motherhood	USG	Ultra Sonography
SNCU	Special Newborn Care Unit	VHND	Village Health & Nutrition Day
		WC	Water Closet
		WHO	World Health Organization



Introduction



Introduction

“Women are not dying because of a disease we cannot treat. They are dying because societies have yet to make the decision that their lives are worth saving.” Mamoud Fathalla, President of the International Federation of Gynecology and Obstetrics (FIGO), World Congress, Copenhagen 1997

Maternal mortality is a sensitive indicator. It helps to understand the health care system of a country and also indicates the prevailing socio-economic scenario. India contributes to 20 per cent of global maternal deaths. Around 56,000 women die every year in the country due to pregnancy or pregnancy related causes. Over the last decade, there has been a decline in maternal mortality ratio (MMR) from 301 (SRS 2001-2003) to 212 (SRS 2007-09), yet the lifetime risk of death for a pregnant woman is one in seven. Despite the appreciable decline, the current MMR continues to be unacceptably high. Moreover, within the country, there is wide interstate and intrastate variation in MMR, with an MMR of 390 in Assam and 81 in Kerala¹. Even within the states, MMR varies widely from one division/region to another, for example Jhansi and Faizabad divisions in Uttar Pradesh have MMR of 241 and 451, respectively.

Causes of maternal deaths may be direct or indirect. The focus till now has largely been on addressing the direct causes of maternal deaths. However, indirect causes also need to be addressed to further reduce MMR and achieve the Million Development Goal (MDG) on MMR. The indirect causes that also include the socio-economic determinants of health may be referred to as the three known delays: 1) delay in making a decision on the need for medical care; 2) delay in reaching the appropriate facility in time; and 3) delay in initiating the correct treatment at the health facility.

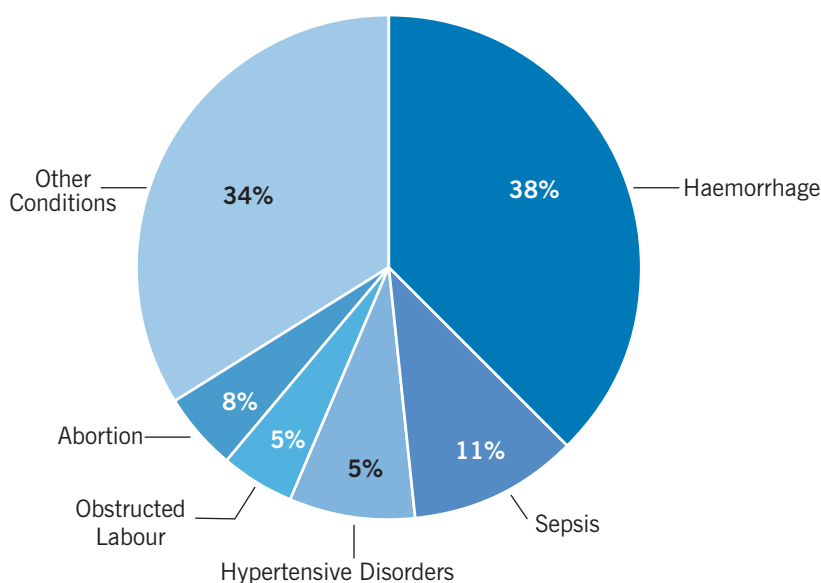
The Janani Suraksha Yojana (JSY) initiative under the aegis of the National Rural Health Mission (NRHM) resulted in a phenomenal increase in the rate of

¹ SRS 2007–2009

institutional deliveries in India from 47 per cent as reported in the District Level Health Survey (DLHS-3, 2007-08) to 73 per cent in the Coverage Evaluation Survey (CES 2009). Yet, about 17 per cent births continue to take place at home and, even those women who come into the fold of institutional delivery are many a time deprived of quality services. The 12th Five Year Plan aims to bring all women during pregnancy and childbirth into the institutional fold so that delivery care services of good quality can be provided to them at the time of delivery at zero expense as envisioned under the Janani Shishu Suraksha Karyakram (JSSK) programme that entitles all pregnant women to absolutely free institutional delivery including C-section with a provision for free drugs, diagnostics, diet, blood and free transport from home to facility, between facilities and drop back home.

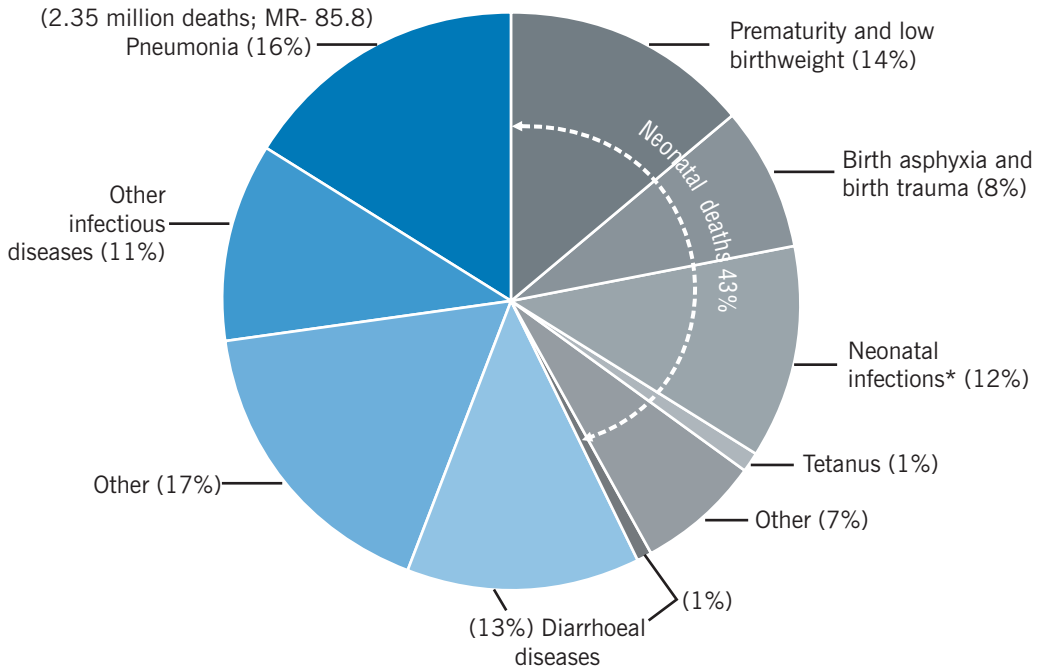
Similarly, IMR has declined from 58 in 2005 to 44 per 1000 live births (Sample Registration Survey or SRS) in 2011. Of the 26 million babies born every year in India, about 870,000 babies die before the age of one month. According to SRS 2010, neonatal mortality (NMR) contributes to about two-thirds of all infant deaths (NMR 33/1000 live births, IMR 47/1000 live births) and about half of under-5 deaths in the country (U-5MR 59/1000, SRS 2010). Though IMR has shown a steady decline in the past few years (from 58/1000 in 2004 to 47/1000 in 2010), the decline in NMR has been disproportionately slow (from 37/1000 in 2004 to 33/1000 in 2010).

Figure 1: Causes of maternal deaths in India²



²RGI (1997-2003)

Figure 2: Causes of under-5 deaths in India³



Under NRHM, there are a number of focused interventions for improving care of both the mother and the newborn, which include focus on improving access to skilled birth attendance and emergency obstetric care for all women in rural areas. On the demand side, JSY has led in overcoming many traditional barriers to institutional deliveries. This has led to an unprecedented surge in the proportion of institutional deliveries even in the low performing states.

Capacity building trainings in Skilled Birth Attendance (SBA), Emergency Obstetric Care (EmOC), Life Saving Anesthesia Skills (LSAS), Use of Intra-uterine Contraceptive Devices (IUCD & PPIUCD), Navjat Shishu Suraksha Karyakram (NSSK), Home-based Newborn Care (HBNC), Integrated Management of Neonatal and Childhood Illness (IMNCI) along with establishment of First Referral Units (FRUs) and 24x7 Primary Health Centres (PHCs), Special Newborn Care Units (SNCUs), and New Born Care Corners (NBCCs) have enhanced access to critical maternal, newborn and child health services in health institutions. However, many of the health facilities designated for provision of BEmOC and CEmOC services are still not in a position to provide optimal quality of care.

³ The Million death study

To reduce MMR and IMR including NMR, strategies and interventions have to be tailored to specific needs and situations and implemented as a continuum of care; hence service packages have to be designed to provide care to the mother and newborn pair from antenatal to postnatal period. Essential newborn care should start soon after delivery and continue thereafter in the rest of the newborn period.

The information provided in this toolkit is drawn on various existing guidelines with additional information on how to set up state-of-the-art maternal and child health (MCH) wings including labour rooms, wards, and operation theatres, complete with standard technical protocols. This MH toolkit will aid programme managers in operationalizing health facilities to provide optimal quality care to the utmost satisfaction of the clients accessing these facilities.

Purpose of the toolkit

The objective of this toolkit is to provide support and guidance to policymakers, programme officers, and managers to establish health facilities providing quality maternal and neonatal services.

This toolkit provides answers to the following key questions:

1. What are the underlying factors (e.g. delays) which can lead to maternal and neonatal deaths?
2. What are the benchmarks/signal functions to provide quality MNH services?
3. What are the standard, technical protocols for MNH services?
4. How to design, organize, and manage MNH services at various levels including specific requirements for infrastructure, equipment, supplies, human resources, capacity building, recording/reporting at L1, L2, L3 MCH centres?

End-users of the toolkit

End-users of this MH toolkit will be hospital administrators and health facility managers, doctors in charge, nursing staff as well as nursing school faculty, and medical school faculty. It is expected that health managers at different levels of healthcare would be able to utilise the toolkit to improve the quality of maternal and neonatal care services in their health facilities.

Underlying factors (delays) which can lead to maternal and neonatal deaths

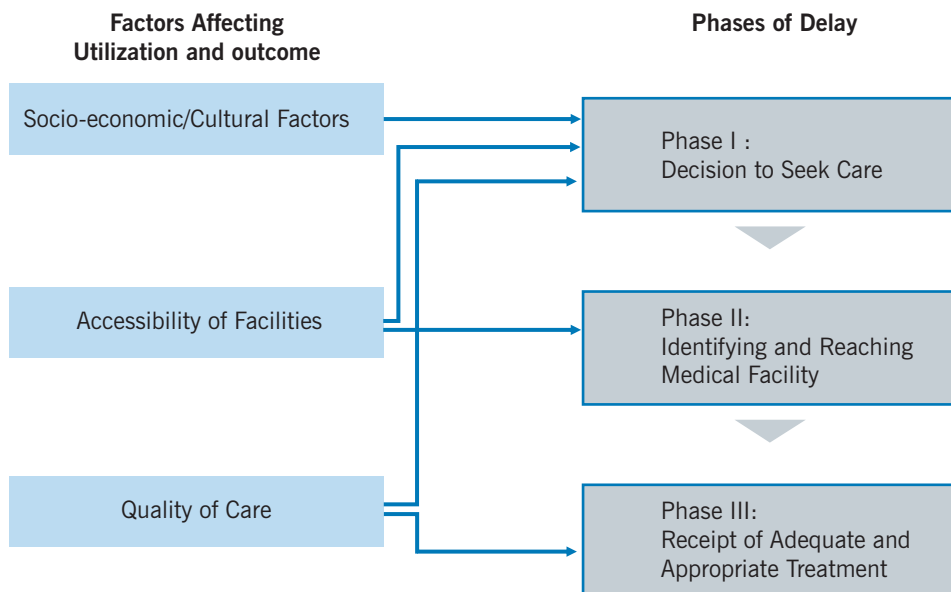
In India, haemorrhage, sepsis, obstructed labour, PIH and unsafe abortions remain the biggest direct preventable medical causes for maternal deaths. However, the underlying factors or indirect causes or 'delays' in accessing healthcare during pregnancy, childbirth or thereafter are well recognized as contributing factors to many of the maternal and neonatal deaths, which may be in:

- 1) Recognising danger signs and deciding to seek appropriate medical help for an obstetric emergency
- 2) Reaching an appropriate obstetric facility
- 3) Receiving adequate quality of care once a woman reaches the facility

The 'three delays' model (Fig 3) is a useful tool to identify the points at which delays can occur in the management of obstetric complications and to design programmes to address these delays.

The first two 'delays' relate directly to the issue of access to care, encompassing factors in the family and the community, including transportation. The third 'delay'

Figure 3: The 'three delays' model



relates to factors in the health facility, including quality of care. Unless the three delays are addressed, no safe motherhood programme can succeed. In practice, it is crucial to address the third delay first, as it would be useless to facilitate access to a health facility if quality health care services are not available at the health facility.

Socio-economic status of women and families, community awareness, birth preparedness, complication readiness, and good referral linkages are linked to the first and second delays. The third delay can be addressed only through the availability of good quality basic and emergency obstetric and neonatal services. Health managers and planners must assess provision of obstetric services in their respective areas. Once the situation has been analysed, the next step is to strengthen these facilities. This planning can be as follows:

- As a first step, strengthening of large facilities which are already conducting deliveries should be taken up.
- As a second step, identifying and strengthening sufficient number of facilities to ensure optimal geographical coverage.

Through NRHM and RCH-II, various steps have been undertaken to address the delays. However, there is still a long way to go. The States which have been able to address delay three effectively have made substantial progress in reducing MMR.

Benchmarks/Signal functions for quality MNH services

Health facilities can be classified as Basic Emergency Obstetric Care (BEmOC) and Comprehensive Emergency Obstetric Care (CEmOC) based on the level of services provided. Table 1 lists the defined minimal 'signal functions' that these levels of health facilities should provide. These are the key interventions for treating the vast majority of maternal complications and for resuscitation of the newborn after birth. The list of signal functions is not exhaustive but these functions serve as indicators of the level of care being provided.



Table 1: Defined minimal 'Signal Functions' that health facilities should provide

BEmOC Services	CEmOC Services
<ol style="list-style-type: none"> 1. Administer parental antibiotics 2. Administer uterotonic drugs (i.e. parental oxytocin) 3. Administer parental anticonvulsants for pre-eclampsia and eclampsia (i.e. magnesium sulphate) 4. Manual Removal of placenta 5. Remove retained products (eg. Manual vacuum extraction, dilatation and curettage) 6. Perform assisted vaginal delivery (eg. vacuum extraction, forceps delivery) 7. Performs basic neonatal resuscitation (e.g. with bag and mask) 	Perform signal functions 1-7 (BEmOC Services), plus: <ol style="list-style-type: none"> 8. Perform surgery (e.g. Caesarean section) 9. Perform blood transfusion
A BEmOC facility is the one in which all functions 1-7 are performed. A CEmOC facility is one in which all functions 1-9 are performed.	

Designing, organizing and managing MNH services

I. MCH centres by level of care

Public Health facilities like the District Hospital (DH)/Sub-district Hospital (SDH)/Community Health Centre (CHC)/Primary Health Centre (PHC)/and Sub-district Health Centre (SHC) are categorized depending on the levels (1, 2 and 3) of maternal and child health care and service delivery. Among these levels, some have been categorized as delivery points based on their performance and case load.

Definitions⁴

MCH Centres

Level 3 – (Comprehensive Level-FRU): All FRU-CHC/SDH/DH/area hospitals/referral hospitals/tertiary hospitals where complications are managed including C-section and blood transfusion. Such an FRU would be equipped also with a Newborn Stabilization Unit (NBSU) at CHC/SDH/others or Special Newborn Care Unit (SNCU) at DH and above. A District Hospital irrespective of caseload has to be a Level 3 institution.

⁴Operational guidelines on Maternal & Newborn Health, GoI, MoHFW 2010

Level 2 – (Basic Level): All 24 x 7 facilities (PHC/Non-FRU CHC/others) providing BEmOC services; conducting deliveries and management of medical complications not requiring surgery or blood transfusion and have either a NBCC or NBSU.

Level 1 – All sub-centres and some PHCs which have not yet reached the next level of 24 x 7 PHC, deliveries are conducted by a skilled-birth attendant (SBA). An NBCC must be established in all such facilities.

Delivery points

Provision of service for delivery in a facility generally serves as an important indicator to assess whether the facility is operational or not. The concept of delivery point emerges from this presumption. Among the facilities designated as L1, L2 and L3 there are some facilities which are conducting deliveries above a minimum benchmark. These are designated as **Delivery Points** (benchmarks annexed). According to Government of India (GoI) mandate, these functional facilities should be the first to be strengthened for providing comprehensive reproductive maternal newborn and child health (RMNCH) services. Benchmarks for each level of facility are based on actual average number of deliveries being conducted per month.

Criteria for establishing CEmOC and BEmOC services: Current scenario and recommendations

Currently, the population coverage for BEmOC and CEmOC facilities in India varies from state to state and is unevenly distributed. High-focus districts have very few functional facilities and therefore poor coverage, whereas bigger cities or metros have better coverage.

Health planners and managers should plan for operationalization of facilities, keeping in view both short- and long-term goals. Short-term planning should focus on making delivery points functional to provide comprehensive RMNCH services as defined for each level and ensuring adequate geographical coverage. This should be supported by a referral transport system that reaches the patient within 30 minutes of receiving a call and a health facility within the following 30 minutes.

The long-term goal should focus on planning for operationalization of the defined number of CEmOC and BEmOC centres during the 12th Five Year Plan period as indicated in Table 2. These numbers are based on WHO recommendations of at least 10 maternity beds per 1000 pregnant women with 80 per cent bed occupancy and three days of stay. This norm has been translated into the number

of BEmOC/CEmOC facilities as required in India where an L2 delivery point is expected to conduct at least 10 deliveries per month and an L3 delivery point at least 20 deliveries per month (including C-Section).

Table 2: Infrastructural requirement for development of centres within 12th Five Year Plan period

Population	Expected deliveries in one year	Minimum no. of deliveries expected in private sector (30%)*	Maximum expected no. of deliveries in public health facilities (70%)*	Expected no. of deliveries per month (approx)	Number of CEmOC centres (L3)	Number of BEmOC centers (L2)	Number of basic delivery centres with referral linkages (L1)
10 lakh	23,000	6,900	16,100	1,350	2 (50% ie 675; 540 ND, 135 CS)	18 (40% ie 540 ND)	30 (10% ie 135)
1,24,14,91,960 (Census 2011)	28,554,315	8,566,295	19,988,020	1,665,668	2,482 (50% ie 832,834; 666,268 ND, 166,567 CS)	22,209 (40% ie 666,268 ND)	37,250 (10% ie, 166,567)
Expected number of normal deliveries in each facility per month, including deliveries among HIV positive mothers					270	30	5
Expected number of complications in each facility per month, including deliveries among HIV positive mothers					70	8	0
Expected number of CS in each facility per month					67		

*Estimated by current trends.

The model is suggestive and based on a long-term goal.

States such as Kerala, Punjab and Gujarat, which have a larger proportion of deliveries in the private sector need to evolve differential strategies by addressing supply side to create demand for services in the public sector and shift some of these deliveries into that sector. However, planning for this long-term goal needs to be done well in advance and must be shared with the Gol.

Similarly, states such Uttar Pradesh, Bihar, and Madhya Pradesh, which have high birth rates, will have to calculate their requirement for these centres based on the caseloads and number of maternity beds required.

Human Resources requirement and establishing these centers will also vary as per geographical needs (eg, sparsely distributed thin population in inaccessible and remote hilly areas).

II. Differential strategies for inaccessible/remote hilly and tribal areas

Tribal Areas: States should clearly map out remote and inaccessible areas located within the tribal areas and pockets, and closely monitor progress (physical, financial) on all health activities in these areas.

Under NRHM, there is a provision to formulate specific plans and allocate additional resources to tribal areas of the country, which includes relaxed norms for development of health infrastructure, medical mobile unit services, and performance-based incentives to doctors and staff posted in such selected and notified tribal areas.

Birth waiting homes

In remote and tribal areas, with poor road connectivity and access to health facilities, pregnant women often have to be carried by palkis/carts/cots to the nearest road head. To improve access to health facilities, 'birth waiting homes' can be constructed in such areas within the compound of the health facility or in close proximity. Pregnant women can come and stay in these homes well before their expected date of delivery (EDD) and transferred to the facility once they go into labour. The pregnant woman may be provided all support and incentivized to move into these facilities at least a week before the EDD.

Special and innovative transportation: In remote and inaccessible areas where there is no motorable road, special schemes and incentives need to be instituted for bringing pregnant women and sick neonates (by palkis, carts, etc) to the nearest road head that serves as a pickup point for referral transport.

Suitable incentives to ANMs (SBAs): ANMs trained in SBA can be incentivized for attending home deliveries in pre-identified and notified villages in remote and inaccessible areas where it is difficult to bring a woman to the institution for delivery on account of geographical/climatic exigencies.

Doorstep promotion of antenatal care and institutional delivery: In tribal areas, availability of ASHAs must be ensured to promote antenatal care and institutional delivery among pregnant women at their homes.

Community monitoring: Active participation of the community in implementation and monitoring of service delivery right up to the grassroots level can produce behaviour change in the local population towards timely decision making for seeking health services at different levels. This is one of the critical elements for achieving an optimal status of maternal and newborn health.

Organizing maternal and newborn health services in a district

Maternal health services in the public health sector, as explained earlier, are categorized into Levels 1,2 and 3 in accordance with the level of facility, specific HR, infrastructure, and service delivery criteria. Table 3 lists these criteria for the three levels.

Table 3: Level of service delivery, service package and HR needs for MNH services

	Level 1 (SC/non 24x7 PHC)	Level 2 (24x7 PHC/non-FRU CHC)	Level 3 (FRU CHC/SDH/DH)
Basic Function	<ul style="list-style-type: none"> • Normal delivery; initial management & referral in case of complications • Essential New Born Care 	<ul style="list-style-type: none"> • Normal delivery; BEmOC including signal functions and referral in case of complications requiring CEmOC • Care of the sick newborn and referral after stabilization • Management or referral of HIV positive mother and newborn 	<ul style="list-style-type: none"> • Normal delivery, CEmOC services including comprehensive signal functions, management of complications, C-section and referral of complications to tertiary level care where required. • Care of sick newborn including Kangaroo Mother Care • Management of HIV positive mother and newborn
Beds (Minimum)	2–6	6–30	30 or more
Geographic Area	Cluster of 5–8 villages	Sector or block	Block or district
Criterion	Minimum 3 normal deliveries per month	Minimum 10 deliveries per month including management of complications	Minimum 20–50 deliveries per month including CS

	Level 1 (SC/non 24x7 PHC)	Level 2 (24x7 PHC/non-FRU CHC)	Level 3 (FRU CHC/SDH/DH)
<p>*Human Resource</p> <p>*The total HR requirement will also be calculated according to the case load.</p>	<ul style="list-style-type: none"> ● 2 ANMs ● 1 part-time female sweeper 	<ul style="list-style-type: none"> ● 1–2 Medical Officers (on-call after OPD hours) ● Minimum 4 staff nurses/ANMs each for labour room and maternity ward ● 2 Lab Technicians (for round-the-clock service delivery) ● Sweeper–3 for labour room (preferably female) and maternity ward HR for NBSU (see page 40) 	<ul style="list-style-type: none"> ● Specialists including gynecologist/ EmOC, anesthetist/LSAS, pediatrician ● Medical Officers ● Staff nurse, cleaning staff, counsellor, lab technician ● 1 certified sonologist (on call after routine hours) ● HR for SNCU (see page 40)
<p>Maternal Health Services</p>	<ul style="list-style-type: none"> ● Identification and referral for danger signs ● Pregnancy testing ● Antenatal care ● Intranatal care <ul style="list-style-type: none"> ■ Normal deliveries by SBA (Partograph, AMTSL, etc) ■ Pre-referral management for obstetric emergencies (Eclampsia, PPH, shock) ● Postnatal care– 24–48 hours stay post-delivery ● Immediate newborn care – drying, warming, skin to skin contact ● Initiation of Breastfeeding ● Post-partum contraceptive counseling 	<p>All in Level 1, plus the following:</p> <ul style="list-style-type: none"> ● Assisted vaginal deliveries ● Management of complications other than those requiring referral to L3 including blood transfusion or surgery ● Episiotomy and suturing ● Stabilization of obstetric emergencies and referral to L3 wherever required ● Antenatal steroids for preterm labour ● HIV screening ● 48 hours stay post-delivery ● Comprehensive abortion care ● Case management of RTI/STI ● Antibiotics for pre-term or PROM for prevention of sepsis of newborns 	<p>All in Level 2, plus the following:</p> <ul style="list-style-type: none"> ● Comprehensive management of all obstetric emergencies, eg, PIH/eclampsia, sepsis, PPH, retained placenta, shock, obstructed labour, severe anemia ● CS and other surgical interventions ● Blood bank/storage center ● Blood grouping and cross-matching ● Link ART/ART at DH ● PPTCT services ● Delivery of HIV positive women

	Level 1 (SC/non 24x7 PHC)	Level 2 (24x7 PHC/non-FRU CHC)	Level 3 (FRU CHC/SDH/DH)
Family Planning Services	<ul style="list-style-type: none"> ● Counseling and provision of spacing methods including interval IUCD 	<ul style="list-style-type: none"> ● Level 1, plus the following: ● Female sterilization including post-partum sterilization, male sterilization (conventional & NSV) 	Level 2, plus the following: <ul style="list-style-type: none"> ● Laparoscopic sterilization ● PPIUCD insertion
Newborn Care	NBCC <ul style="list-style-type: none"> ● Essential newborn care including resuscitation ● Zero day immunization (OPV, BCG, Hep B; as per Gol schedule), Inj. Vit. K ● Care of normal newborn : 	NBSU All those in Level 1, plus the following: <ul style="list-style-type: none"> ● Care of sick newborn <ul style="list-style-type: none"> ■ Identification and Management of LBW infants \geq 1800 g with no other complications 	SNCU <ul style="list-style-type: none"> ● All those in Level 2, plus ● Care of sick newborn <ul style="list-style-type: none"> ■ Management of LBW newborns <1800 gm
Newborn Care	<ul style="list-style-type: none"> ■ Breastfeeding/feeding support ● Care of sick newborn <ul style="list-style-type: none"> ■ Identification, stabilization and initial management of complications (sepsis, LBW/premature babies, etc) before referral and prompt referral of 'sick' newborn ■ Referral services 	<ul style="list-style-type: none"> ■ Phototherapy for newborns with hyperbilirubinemia ■ Management of newborn sepsis ■ Stabilization and referral of sick newborns and those with very low birth weight 	<ul style="list-style-type: none"> ■ Management of all sick newborns (except those requiring mechanical ventilation and major surgical interventions) ■ Follow-up of all babies discharged from the unit and high-risk newborns.
Required Skills	<ul style="list-style-type: none"> ● SBA, IMNCI, NSSK, IUCD 	All in Level 1, plus the following: <ul style="list-style-type: none"> ● BEmOC, Minilap, MTP, FIMNCI, NSV, Training for RTI/STI 	All in Level 2, plus the following: <ul style="list-style-type: none"> ● EmOC, LSAS, FBNC,, PPIUCD, Laparoscopic sterilization & Training of MO and Lab Tech on Blood storage unit
Laboratory Test	<ul style="list-style-type: none"> ● Hb, Urine for albumin & sugar, RDK for malaria, Urine for pregnancy test 	All in Level 1, plus the following: <ul style="list-style-type: none"> ● CBC ● Semen analysis ● Blood grouping 	All in Level 2, plus the following: <ul style="list-style-type: none"> ● Liver function test ● Glucose tolerance test ● Platelet count ● Thyroid profile

	Level 1 (SC/non 24x7 PHC)	Level 2 (24x7 PHC/non-FRU CHC)	Level 3 (FRU CHC/SDH/DH)
Laboratory Test		<ul style="list-style-type: none"> ● Bleeding time, clotting time ● Routine and microscopic examination of stool ● Sputum for TB ● P/S for MP ● HIV screening ● Hepatitis B/ Australian Antigen ● Blood grouping and RH typing, wet mount, RPR/VDRL, serum bilirubin for sick newborns 	<ul style="list-style-type: none"> ● Gram staining ● USG ● KFT ● Pap smear

- i. Some of the health facilities might be functioning at a lower level than the level designated for that facility. Such facilities have to ensure delivery of the services of one level lower than it has been designated. For example, if a CHC that has been designated to be functional as an FRU (MCH L3) is not able to deliver the desired services of this level then it has to ensure delivery of L2 MCH services (24x7 PHC). Besides, the prescribed HR for RMNCH and Family Planning should be placed at the respective facilities as per their functional level. See details under table on HR.

- ii. The Ministry of Health and Family Welfare (MoOHFW), Government of India, has implemented various programmes for increasing access to quality RMNCH and family planning services in the country. To ensure that these services are accessed by the communities uniformly and appropriately, it is important that awareness be created about the availability of these services at the public sector health facilities. Towards this objective, a dedicated RMNCH counsellor is being placed at the public sector health facilities under NRHM. It is envisioned that the counsellor will play a key role in increasing awareness and generating demand for the various RMNCH services provided at the facilities. The counsellor is expected to ensure that all women, children and families coming to the health facilities are given appropriate information about the available RMNCH services at the facility.



Chapter 1 Planning and Organizing MNH Services



Chapter 1

Planning and Organizing MNH Services

All facilities providing MNH services should have a mother-and-newborn-friendly environment. Dignity and safety (privacy and choice) of clients should be ensured. Staff deputed at such facilities should adhere to clinical protocols/standards of service delivery and ensure infection prevention measures.

This section provides an outline for planning infrastructure, equipment, drugs and supplies, record keeping, reporting and monitoring. It is the responsibility of the facility in-charge and service providers to ensure that the institution and its premises remain clean and client-friendly. Health staff should be polite and courteous in behaviour; equipment has to be accessible and functional and subject to checks during every shift of staff duty; drugs and consumables to be made available 24x7; assured referral linkages have to be established; and daily rounds conducted by facility managers to identify gaps and bottlenecks and address these.

A nodal officer should be designated at every institution for assuring quality of services. All staff including support staff should be oriented and trained on relevant protocols including infection prevention. Audit of sample prescriptions/case sheets should be a weekly exercise by faculty members or treating physicians to ensure rational treatment as per clinical standards. A robust grievance redressal system should also be put in place.

Every facility must be Mother-and-baby-friendly. The critical steps for ensuring this are:

- Respecting the right of every mother and baby to stay safe in the facility and with dignity
- Designing the infrastructure for easy mobility and comfortable stay
- Training the service providers for necessary behavioral and technical skills
- Providing integrated maternal newborn and child health services in accordance with protocols with required competency

- Practice of infection prevention and bio-medical waste management as per the guidelines
- Establishing assured referral linkages
- Monitoring quality of service delivery and establishing a process for improvement of quality
- Ensuring functional grievance redressal system both for client and service providers
- Assessing client satisfaction periodically
- For smooth planning at each level of facility, the plan should take care of infrastructure, equipment, drugs and supplies, record keeping, reporting and monitoring.

Infrastructure

While planning for infrastructure, planners may face two situations: 1) to improve existing infrastructure; or 2) to create additional infrastructure particularly where bed occupancy is more than 70 per cent.

Improving existing infrastructure:

Although, it may not be always possible to ensure the recommended layouts and infrastructure within an existing facility, it is still essential to make the existing facility as mother- and baby-friendly as possible. Planning therefore cannot be based on a one-size-fits-all, and will differ from facility to facility as per the local situation. Some of the critical steps to follow are to:

- Identify the gaps by observing client flow and time taken for actual service delivery from the time clients report to the registration or emergency.
- Plan to address gaps to improve service delivery and minimize the third delay.
- Relocate/redesign/rearrange available area/rooms for optimal utilization, client safety, and comfort. (For how to optimize infrastructure and to understand the desirable flow of client and service delivery, refer to the plan for new MCH wing.)
- Repair and refurbish facility with appropriate tiling, flooring and roofing.
- Ensure privacy, create anterooms before aseptic zones such as LR, OT, obstetric ICU, SNCU, etc.

- Ensure availability of 24x7 running water supply, uninterrupted power supply (along with power back-up), and clean toilets (separate for male and female).
- Attention should be given for improving the ambience of the premises, waiting area and other facilities for the clients.



Creating new infrastructure

To create new infrastructure, the criteria given below must be used:

1. Functionality of the facility
2. Delivery point
3. Bed occupancy
4. Services being delivered



Table 4: Essential components for creating new infrastructure

Essential components for creating new infrastructure	Level 1	Level 2	Level 3
Criteria delivery point & bed occupancy	<ul style="list-style-type: none"> • Functioning as delivery point and increasing load of delivery 	<ul style="list-style-type: none"> • Bed Occupancy: >70%, increasing load of delivery and existing infrastructure has been optimally utilized 	<ul style="list-style-type: none"> • Same as in Level 2
Premises	<ul style="list-style-type: none"> • Sign board with facility name, which is visible from a distance. Wall writing/ glow sign can be the option, the board should have name of the institution, type of institution and NRHM and state logos • Board indicating routine functioning hours, names of ANM and other staff with their contact numbers • Direction boards leading to the facility • Should have boundary wall with a gate • Neat and clean outer surroundings, adequate signage • Emergency phone no. of ANM and vehicle drivers/call centre for transport • Adequate lighting • Bio-medical waste pits are constructed, but away from the water source 	<p>Same as in Level 1, plus the following:</p> <ul style="list-style-type: none"> • Controlled entry and exit • Approach road within the facility is paved with interlocking blocks • Garden • Covered drainage • Leveled ground without water logging. • Parking space for vehicles of staff and clients • Exclusive slots for parking of ambulances/referral transport and driver's room • Covered porch where the ambulance can de-board the patient • Wheel-chair and patient stretcher are available at the entrance of the facility • Entrance has a ramp for easy movement of wheel-chair/ stretcher 	<p>Same as in Level 2, plus the following:</p> <ul style="list-style-type: none"> • Premises with garden and green plantation • Clients have easy access to emergency • Signage in vernacular language is displayed to guide client to various departments in the facility • Lawns, space for parking • Canteen (may be outsourced)

Essential components for creating new infrastructure	Level 1	Level 2	Level 3
Waiting Area	<ul style="list-style-type: none"> ● Seating arrangement for clients and attendants in proportion to client load ● Display of doctors' names with days and duty rosters 	<p>Same as in Level 1, plus the following:</p> <ul style="list-style-type: none"> ● Covered space, water cooler and drinking water ● Display of Citizen Charter, display of IEC and EDL ● Display of staff on duty with timing ● Directions to various departments and room numbers displayed clearly ● Functional toilets for staff, clients and patients 	<p>Same as in Level 2, plus the following:</p> <ul style="list-style-type: none"> ● Public address system, LCD/ Television for IEC ● Clean and client-friendly gender sensitive washroom (may be outsourced) ● Suggestion box which is opened on a regular basis ● A board next to suggestion box should display suggestions received and action taken ● Help desk/ grievance redressal system ● Token system and electronic display for high caseload facility
Registration Counter	<ul style="list-style-type: none"> ● Availability of register ● Mother & Child Protection (MCP) card and Safe Motherhood (SM) booklet with referral slips 	<p>Same as in Level 1, plus the following:</p> <ul style="list-style-type: none"> ● Availability of space with adequate furniture ● Counter has a central register, OPD slip, admission slip ● Computerized registration for high caseload facilities ● Serves multiple purposes like registration, assistance and inquiry counter 	<p>Same as in Level 2, plus the following:</p> <ul style="list-style-type: none"> ● Should be located near OPD ● Furnished room is available ● Computerized Registration ● Triage (segregation of urgent and non-urgent clients) ● Issue of Token System

Essential components for creating new infrastructure	Level 1	Level 2	Level 3
Emergency	<ul style="list-style-type: none"> Assured referral after basic management 	<p>Same as in Level 1, plus the following:</p> <ul style="list-style-type: none"> Designated room with emergency drug tray, oxygen, suction facility, adult and neonatal resuscitation equipment, radiant warmer, consumables and disposables, display of resuscitation protocols, display of duty staff with timings 	<p>Same as in Level 2, plus the following</p> <ul style="list-style-type: none"> Separate emergency facilities for maternity cases at DH Casualty duty MO, emergency beds Easy access to delivery room and OT Provision for security guards and other support staff Separate room/space for injection, dressing, etc
OPD	<ul style="list-style-type: none"> Seating arrangement for staff and patient, examining facility – examination table with foam mattress, sheet and pillow, screen/curtains for privacy Display of working hours and duty roster of staff. Display of technical protocols Privacy for clients 	<p>Same as in Level 1, plus the following:</p> <ul style="list-style-type: none"> Antenatal/postnatal clinic having privacy, examination table with foot step, hand washing facility Drinking water facility Display of resuscitation and protocols, display of OPD timings, duty roster of staff with timings Toilets 	<p>Same as in Level 2, plus the following:</p> <ul style="list-style-type: none"> Separate OPD for maternity cases at DH co-located with waiting area Dedicated ANC, PNC and FP counseling rooms Air Conditioner OPD attendants/ward boy Help desk Electronic display of token number
Pharmacy	<ul style="list-style-type: none"> Essential medicines for antenatal, intranatal, postnatal, newborn & child health as per the level of the facility is required to be kept 	<p>Same as in Level 1, plus the following:</p> <ul style="list-style-type: none"> Located near OPD Area is adequate to accommodate 5-10% of the OPD clients 	<p>Same as in Level 2</p>

Essential components for creating new infrastructure	Level 1	Level 2	Level 3
Pharmacy		<ul style="list-style-type: none"> ● EDL is displayed available including drugs for medical abortion, contraceptives including condoms ● Cupboards, pigeon-holes to keep tablets, bottles/ envelopes for medicine distribution 	
Clinical Laboratory	<ul style="list-style-type: none"> ● Material needed for mandated lab test at each level ● Haemoglobinometer (Sahilis kit) with reagents and lancet ● Strips for testing urine albumin and sugar ● Reagents such as sulphuric acid, acetic acid, Benedict solution. ● Specimen collection bottle (in case testing strips are not available) ● Test-tubes, holder, test-tube stand, match box, spirit lamp ● RDK for malaria testing 	<p>Same as in Level 1, plus the following:</p> <ul style="list-style-type: none"> ● Trained laboratory technicians ● Lab should be operational during OPD hours and emergency lab facility available after routine working hours ● Lab test reports reach a centralized OPD counter directly ● Lab is located near OPD area and should have a toilet nearby ● Lab should have marble/stone top platform and wash basin with running water supply ● Critical equipment – sequencing of the above red content 	<p>Same as in Level 2, plus the following:</p> <ul style="list-style-type: none"> ● USG facility/outsourced should have a declaration displayed: sex determination of the foetus is not done at this facility ● Autoanalyser
Clinical Laboratory		<ul style="list-style-type: none"> ● Semi Autoanalyser 	

Essential components for creating new infrastructure	Level 1	Level 2	Level 3
Labour Room	<ul style="list-style-type: none"> ● As per the number of delivery tables envisaged. Each delivery table and medicine trolley will require at least 10x10 ft space ● Windows with smoked glass, well lighted, draught-free environment, interior tiling of walls and floor ● Labor table (min 2) with mackintosh, Kellys pad and buckets ● Stepping stool for every labor table; light for conducting deliveries; ● 6 trays as mentioned in the table ● NBCC ● Equipment for autoclave/sterilization ● Wall clock 	<p>Same as in Level 1, plus the following:</p> <ul style="list-style-type: none"> ● Size of LR as per the case load and number of Labor tables, changing area and buffer zone, utility room, attached hand washing area and toilet ● Air conditioning ● NBCC with adequate number of radiant warmer as per case load 	<p>Same as in Level 2, plus the following:</p> <ul style="list-style-type: none"> ● Stainless steel top labour table with foam mattress, sheet and pillow as per case load (Min 4) ● Central supply of oxygen/oxygen concentrator and suction facility ● Air conditioning, functional telephone connection, ultrasound machine, foetal monitor, pulse oxymetre, etc
ANC /PNC Wards	<ul style="list-style-type: none"> ● Two beds ● Privacy ● Foetoscope, newborn thermometer, weighing scale (adult), BP apparatus, disposable sterile syringe and needles, puncture proof box, consumables (cotton, gloves) ● Safe drinking water ● Wall clock 	<p>Same as in Level 1, plus the following:</p> <ul style="list-style-type: none"> ● Adequate no of beds as per delivery load 	<p>Same as in Level 2, plus the following:</p> <ul style="list-style-type: none"> ● Separate ANC/PNC and post- operative wards, nursing stations with glasses, utility room, washrooms, doctors and nurses duty room, room for support staff, display of technical protocols and IEC material, small pantry, LCD/TV

Essential components for creating new infrastructure	Level 1	Level 2	Level 3
OT	-----	<p>Minor OT:</p> <ul style="list-style-type: none"> ● Stainless steel top adequately wide table, foot rest, shadow less lamp ● Air conditioning, floor and wall tiling, slab with granite top, hand washing area with elbow operated handle ● Cupboard, colour-coded bins and tub for 0.5% chlorine solution ● Drug and dressing tray ● NBCC 	<p>Same as in Level 2, plus the following:</p> <ul style="list-style-type: none"> ● Major OT: ● DH should have separate OBG and FPOT for sterilization ● OT table (Hydraulic), NBCC, Boyle's apparatus, attached scrub area, separate routine and emergency tray, anaesthesia tray, sterilized equipment for each surgery, neonatal tray, ● Drums for sterilized consumable like cotton, gauze, etc, receiving/pre-operative area, changing area and buffer zone, attached recovery room with beds, doctors and nurses duty room, utility room, attached hand washing area
Toilets	<ul style="list-style-type: none"> ● One toilet in or near the labour room with running water and door-latch 	<p>Same as in Level 1, plus the following:</p> <ul style="list-style-type: none"> ● Attached toilet with LR ● Separate toilets for the clients visiting OPD and admitted patients ● These should be proportionate to the client load ● Cleaning staff is available round the clock 	Same as in Level 2

Essential components for creating new infrastructure	Level 1	Level 2	Level 3
Toilets		<ul style="list-style-type: none"> All toilets have running water, area to wash hands, door-latch and good lighting 	
Other Rooms		<ul style="list-style-type: none"> Training/meeting room where trainings, orientation, meetings are held Duty rooms for doctors and nurses 	Same as in Level 2, plus the following: <ul style="list-style-type: none"> Counselors' room Store room – wall mounted cupboards for sterile gowns, leggings, gynae sheets and delivery trays, wall mounted cup boards for sterile drums, medicines
Infection Prevention	<ul style="list-style-type: none"> Hand washing as per protocol Use of disposable gloves, use of disinfectants, clean sheet, sterile scissor for cord cutting, sterilized cord ties, in facility – boiling of instruments and colour coded bins 	Same as in Level 1, plus the following: <ul style="list-style-type: none"> Autoclave, colour coded bins 	<ul style="list-style-type: none"> Same as in Level 2
Waste Management	<ul style="list-style-type: none"> Hub-cutter, puncture proof boxes for needle disposal, deep burial of placenta 	Same as in Level 1, plus the following: <ul style="list-style-type: none"> Deep burial of placenta and all blood and tissue fluid stained 	Same as in Level 2, plus the following: <ul style="list-style-type: none"> Arrangement for BMW management and disposal

Maternity Wing in L3 Facility

This section deals with organization of 'Maternity Wing' with minimum standards of care which should be observed in a facility. A Maternity Wing comprises:

Delivery unit which includes:

- Receiving area
- Examination room
- Pre-delivery room (1st stage area)
- Delivery (Labour) room both septic and aseptic with NBCC (2nd–3rd stage)
- Post-delivery observation room (4th stage area)

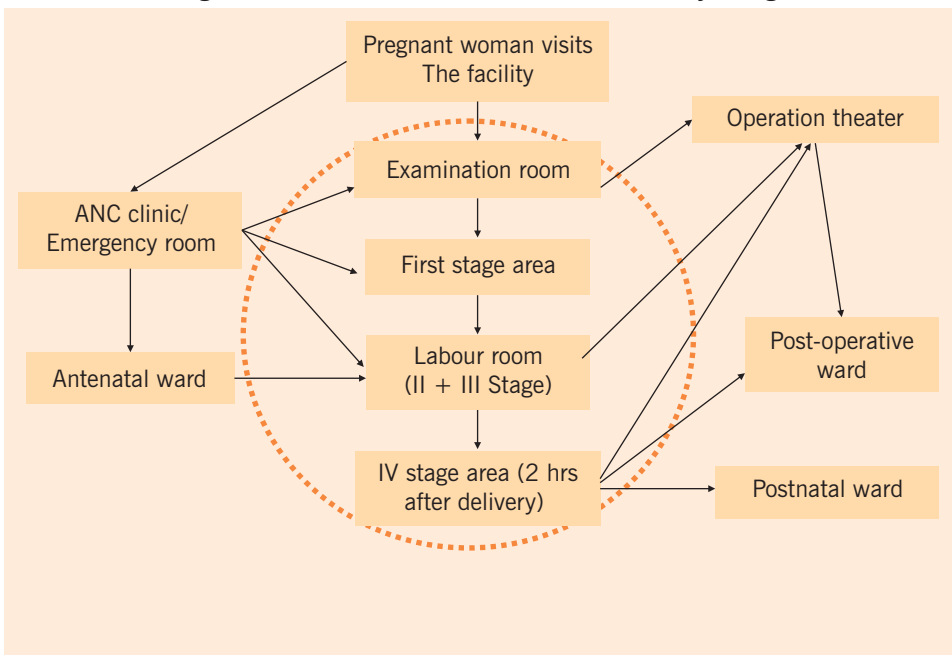
Wards: Antenatal, Postnatal and Post-operative

Receiving Area

This is the place where all pregnant women and women in emergency situation are received. The pregnant woman's BP, weight, etc are noted, records and registers are filled and a case sheet prepared. Then she is examined in the Examination Room. Relevant registers and records must be kept in the receiving area.

Any woman coming to the Receiving Area has to be quickly assessed to rule out acute emergencies, danger signs or a stage of full dilatation with imminent delivery. Initial/emergency management of such cases will be done in the Examination Room. Then the woman is sent to the appropriate area for further management.

Figure 4: Flow of a client within the Maternity Wing



Examination Room

This is a place where adequate privacy with curtains between examination tables schedule be maintained. It is a well-lit room with examination tables and enough space for movement of the pregnant woman/patient and also the examining doctor. The room also has the following equipment and consumables for conducting general, abdominal and vaginal examination.

Table 5: Examination Room client-flow and equipment

Client-flow	Equipment and accessories
<ul style="list-style-type: none"> Initial examination of all women who are in labour or in any other routine/emergency situations, would be conducted here. On the basis of her initial assessment, the woman would be transferred either to the ward or home, if she is in false labour. If she has good uterine contractions but cervical dilation is less than 4 cm and she is not in the active phase of labour, she will be sent to Pre-delivery Waiting room for a close observation of the progress of labor. She will be sent to the labour room if in active phase of labour i.e. cervical dilatation = or > 4 cms. In complicated cases, requiring emergency management, treatment will be initiated there itself before transferring to obstetric ICU. If C- section is required, the woman will be sent to OT. Other cases, will be transferred as per the situation e.g. to Eclampsia Room or Septic Room or the Labour Ward. 	<ol style="list-style-type: none"> Wheelchair and/or stretcher Examination table with foot step Foetoscope/Doppler Table and chair for doctor BP apparatus with stethoscope Thermometer Wall clock Adult weighing scale Measuring tape Emergency drug tray Hub cutter Puncture proof container Color coded bins Partograph Cetrimide swabs Disposable gloves Records / registers Refrigerator Utility gloves MCP card, Safe motherhood booklet IUCD Client Card Sterilized swabs and instruments Washbasin

Pre-delivery observation room (1st stage area)

After initial examination, the pregnant woman with good uterine contractions but cervical dilation still less than 4 cm that is not in active phase of labour will be sent to Pre-delivery room area for close observation. The woman should change into a clean gown.

Table 6: Pre-delivery observation room criteria

Pre-delivery observation room criteria	Equipment and accessories
<ul style="list-style-type: none"> • The number of beds for this area will depend upon the delivery load of the facility. • She may be allowed to bring a birth companion (preferably a relative and certainly not ASHA nor MAMTA/ YASHODA), for her emotional support. 	<ol style="list-style-type: none"> 1. Foetoscope/Doppler 2. BP apparatus with stethoscope 3. Thermometer 4. Wall clock 5. Color coded bins 6. Cetrimide swabs 7. Disposable gloves 8. Bed head tickets with attached partograph 9. Utility gloves 10. Washbasin 11. IV stand 12. Sterilized instruments

Post-delivery observation room (4th stage area)

Mother and baby must be observed for 2 hours after delivery before shifting to the ward. This area can be planned along side the Pre-delivery observation area.

Delivery (Labour) room

A pregnant woman will go to the Delivery/Labour room if she is in active phase of labour, i.e. cervical dilatation = or > than 4 cm. Essential services in Labour room:

- Conducting normal delivery
- Plotting partograph
- Identifying and managing complications
- AMTSL
- ENBC including newborn resuscitation



Table 7: Labour room equipment and accessories

Labour room equipment and accessories	
<p>Every Labour Room should have the following:</p> <ol style="list-style-type: none"> 1. Labour table with mattress, sheet, pillow (numbers as per case load), Macintosh, Foot-rest 2. Brass V drape to collect blood and amniotic fluid 3. Wall clock with seconds hand 4. Wall mounted thermometer 5. Suction apparatus 6. Equipment for adult resuscitation 7. Equipment for neonatal resuscitation 8. Delivery trolley 9. IV drip stand 10. Screen/Partition between two tables 11. Stool for birth companion 12. Lamp – wall mounted or side 13. Autoclave 14. Autoclave drums for instruments, linen, gloves, cotton, gauge, threads sanitary pads <ol style="list-style-type: none"> a. Autoclaved delivery set for each delivery 15. Refrigerator 16. Sphygmomanometer, adult and newborn thermometer and newborn weighing machine 17. Consumables like gloves, apron, cotton, thread, gauze, sanitary napkins, catgut, IV drip sets, needle, cord clamp, medicines (injectable, oral and parenteral, leucoplast etc 18. Pulse oxymeter 19. Sterilizer 20. Oxygen cylinder 21. Oxygen concentrator 22. Partograph 23. Delivery kit for HIV positive women 	<ol style="list-style-type: none"> 24. Labelled plastic jars for drugs and injectables with date of expiry written on them against each drug 25. Coloured bins for bio medical waste management 26. Hub cutter 27. Puncture proof container 28. Plastic tubs for 0.5% Chlorine solution 29. Intranatal protocols 30. Wheel chair/patient's trolley 31. 7 Trays: Delivery tray, Episiotomy tray, Medicine tray, Emergency drug tray, Baby tray, MVA tray, PPIUCD tray (see content below) 32. Hand-washing area and toilet for the admitted clients 33. Foeto-scope/Foetal Doppler 34. Stethoscope, 35. Display of SBA quality protocols, and shadow less lamp. 36. Mosquito Repellent



Table 8: Trays to be kept in Labour room

1. **Delivery tray:** Gloves, scissor, artery forceps, cord clamp, sponge holding forceps, urinary catheter, bowl for antiseptic lotion, gauze pieces and cotton swabs, speculum, sanitary pads, Kidney tray.
2. **Episiotomy tray:** Inj. Xylocaine 2%, 10 ml disposable syringe with needle, episiotomy scissor, kidney tray, artery forceps, allis forceps, sponge holding forceps, toothed forceps, needle holder, needle (round body and cutting), chromic catgut no. 0, gauze pieces, cotton swabs, antiseptic lotion, thumb forceps, gloves.
3. **Baby tray:** Two pre-warmed towels/sheets for wrapping the baby, cotton swabs, mucus extractor, bag & mask, sterilized thread for cord/cord clamp, nasogastric tube and gloves Inj. Vitamin K, needle and syringe. (Baby should be received in a pre-warmed towel. Do not use metallic tray.)
4. **Medicine tray*:** Inj. Oxytocin (to be kept in fridge), Cap Ampicillin 500 mg, Tab Metronidazole 400 mg, Tab Paracetamol, Tab Ibuprofen, Tab B complex, IV fluids, Inj. Oxytocin 10 IU, Tab. Misoprostol 200 micrograms, Inj. Gentamycin, Vit K, Inj. Betamethason, Ringer lactate, Normal Saline, Inj. Hydrazaline, Nefidepin, Methyldopa, magnifying glass.



(*-Nevirapin and other HIV drugs only for ICTC and ART Centres)

5. **Emergency drug tray:**** Inj. Oxytocin (to be kept in fridge), Inj. Magsulf 50%, Inj. Calcium gluconate-10%, Inj. Dexamethasone, Inj. Ampicillin, Inj. Gentamicin, Inj. Metronidazole, Inj. Lignocaine-2%, Inj. Adrenaline, Inj. Hydrocortisone Succinate, Inj. Diazepam, Inj. Pheneramine maleate, Inj. Carboprost, Inj. Fortwin, Inj. Phenergan, Ringer lactate, normal saline, Betamethazon Inj. Hydrazaline, Nefidepin, Methyldopa, IV sets with 16-gauge needle at least two, controlled suction catheter, mouth gag, IV Canula, vials for drug collection Ceftriaxone (3rd generation cephalosporins) - For L3 facility.

(– only for L2, L3 facilities)**

6. **MVA/ EVA tray:** Gloves, speculum, anterior vaginal wall retractor, posterior vaginal wall retractor, sponge holding forceps, MVA syringe and cannulas, MTP cannulas, small bowl of antiseptic lotion, sanitary pads, pads /cotton swabs, disposable syringe and needle, misoprostol tablet, sterilised gauze/pads, urinary catheter.
7. **PPIUCD tray***–** PPIUCD Insertion Forceps, Cu IUCD 380A/ Cu IUCD 375 in a sterile package.

(* – only for L3 facilities with PPIUCD trained provider)**

Service area

- Every LR should have a demarcated service area for the paper work (recording/ reporting, etc) which should not be completely segregated from the patient areas, so that the staff on duty can quickly respond to any exigency or the requirements of the women in labour.
- This area should not be used as a store for drugs, consumables, equipment, etc which can be kept in a separate store as replacement stock. List of consumables required for 100 deliveries is placed at Annexure- 9.
- For smooth working of the Labour room, one labour table will require 10x10 sqft of space; two labour tables will need 20x20 and so on. Every labour table should have a sleek vertical trolley with space for six trays.

Newborn Care Corner

This is MANDATORY for all Labour rooms and obstetric OTs of 'delivery points'.

Essential care at birth

- Resuscitation of newborn
- Provision of warmth
- Early initiation of breastfeeding
- Weighing the neonate
- Inspecting newborn for gross congenital anomalies
- Every labour room and obstetric OT should have an NBCC, with a radiant warmer and a functional bag and mask of appropriate size
- Room should be draught free



Please note that every baby will not need care under a radiant warmer. Only when the following conditions are observed in the mother or baby, then the baby should be put under a radiant warmer for ENBC and, if required, given resuscitation:

- Meconium stained liquor and preterm labour
- Baby not crying and limp/flaccid limbs/floppy baby
- Or as per doctor's advice

Table 9: Equipment and accessories needed at NBCC

Equipment and accessories needed at NBCC	
1. Baby tray	9. Mucus extractor with suction tube and a foot-operated suction machine NG tubes
2. Paediatric stethoscope	10. Blankets
3. Baby scale	11. Two clean and dry towels
4. Radiant warmer	12. Feeding tubes
5. Self-inflating bag and mask–neonatal size (0 and 1)	13. Empty vials for collecting blood
6. Oxygen hood (neonatal)	14. Alcohol handrub
7. Laryngoscope and Endotracheal intubation tubes	15. HLD/sterile gloves
8. Two set of pencil cell batteries (one is spare)	

Table 10: Equipment and accessories needed at NBSU and SNCU (as per Gol Guidelines)

	NBSU	SNCU
Site	FRU/CHC	DH
Space	<ul style="list-style-type: none"> ● The stabilization unit should be located within or in close proximity of the maternity ward ● Space of approximately 40-50 sq ft per bed is needed, where four radiant warmers can be kept. ● There should be provision of hand washing and containment of infection control 	<ul style="list-style-type: none"> ● Each newborn space shall contain a minimum of 100 sq ft (9.9 sq m) of clear floor space, excluding hand washing stations and columns. This 100 sq ft per bed of space should be utilized as follows: ● Baby care area: 50 sq ft per bed ● General support and ancillary ● Areas: 50 sq ft per bed
HR	<ul style="list-style-type: none"> ● MO/Paediatrician trained in F-IMNCI/paediatrician ● 1 dedicated nursing staff per shift. Total 4 dedicated staff nurses trained in F-IMNCI 	<p>For a 12-bed unit (plus 4 beds for step-down area), the recommended dedicated staffing is:</p> <ul style="list-style-type: none"> ● Staff Nurses: 10 ● Pediatrician/ MO trained in SNCU: 3-4 (Pediatrician/MO and staff nurses trained in FBNC ● Support Staff: 4, 1 LT (part time) and 1 DEO

	NBSU	SNCU
Site	FRU/CHC	DH
Services	<ul style="list-style-type: none"> ● Care at birth ● Provision of warmth ● Resuscitation ● Monitoring of vital signs ● Initial care and stabilization of sick newborns ● Care of low birth weight ● Newborns not requiring intensive care ● Breast feeding and feeding support ● Referral services 	<ul style="list-style-type: none"> ● Care at birth, including resuscitation of asphyxiated newborns ● Managing sick newborns (except those requiring mechanical ventilation and major surgical interventions) ● Post-natal care ● Follow-up of high risk newborns ● Referral services ● Immunization services

Note: Sister-in-charge of LR should be responsible for maintenance and functioning of all equipment in the LR and NBCC.

- Every change of shift should ensure proper handing and taking over for equipment and its functionality.
- Non-functional equipments should be notified immediately to OBG I/C and also facility I/C for replacement/repair.

Space and dimension of LR will remain the same depending on the number of labour tables to be placed based on the case load.

Table 11: Expected services to be provided at newborn care facilities

Newborn Care Corner	Stabilization Unit	Special Newborn Care Unit
Care at birth	Care at birth	Care at birth
<ul style="list-style-type: none"> ● Prevention of infection ● Provision of warmth ● Resuscitation ● Early initiation of breastfeeding ● Weighing the newborn 	<ul style="list-style-type: none"> ● Prevention of infection ● Provision of warmth ● Resuscitation ● Early initiation of breastfeeding ● Weighing the newborn 	<ul style="list-style-type: none"> ● Prevention of infection ● Provision of warmth ● Resuscitation ● Early initiation of breastfeeding ● Weighing the newborn
Care of normal newborn	Care of normal newborn	Care of normal newborn
<ul style="list-style-type: none"> ● Breastfeeding/-feeding support 	<ul style="list-style-type: none"> ● Breastfeeding/-feeding support 	<ul style="list-style-type: none"> ● Breastfeeding/-feeding support
Care of sick newborn	Care of sick newborn	Care of sick newborn
<ul style="list-style-type: none"> ● Identification and prompt referral of ‘at risk’ and ‘sick’ newborn 	<ul style="list-style-type: none"> ● Management of low birth weight infants \geq 1800 g <i>with no other complications</i> 	<ul style="list-style-type: none"> ● Managing of low birth weight infants $<$ 1800 g

Newborn Care Corner	Stabilization Unit	Special Newborn Care Unit
Care of normal newborn	Care of normal newborn	Care of normal newborn
<ul style="list-style-type: none"> Breastfeeding/-feeding support 	<ul style="list-style-type: none"> Breastfeeding/-feeding support 	<ul style="list-style-type: none"> Breastfeeding/-feeding support
Care of sick newborn	Care of sick newborn	Care of sick newborn
<ul style="list-style-type: none"> Identification and prompt referral of 'at risk' and 'sick' newborn 	<ul style="list-style-type: none"> Phototherapy for newborns with hyperbilirubinemia* Management of newborn sepsis Stabilization and referral of sick newborns and those with very low birth weight (rooming in) Referral services 	<ul style="list-style-type: none"> Managing all sick newborns (except those requiring mechanical ventilation and major surgical interventions) Follow-up of all babies discharged from the unit and high-risk newborns Immunization services Referral services
Immunization services	Immunization services	Immunization services

* Availability of laboratory facilities to estimate bilirubin levels is a prerequisite.

Table 12: Newborn care

Do's	Don'ts
<ul style="list-style-type: none"> Always wash your hands before handling the baby Rooming in of baby with the mother Keep the baby warm Take extra care to maintain baby's temperature in preterm and LBW baby Keep the cord dry and clean Breast fed the baby exclusively. Early initiation of breast feeding is essential for a good reflex action Any signs/ symptoms of complications must be referred and attended to by a doctor. The care provider should observe every 2 hours in the first 6 hours and every 6 hours from 6 –24 hours after delivery If the newborn is LBW then at least three additional visits should be ensured 	<ul style="list-style-type: none"> Do not keep all babies as a routine under the radiant warmer Do not delay breast feeding beyond half an hour as that may lead to rapid decrease in suckling reflex of the baby Do not use prelacteals even water Do not apply anything on the cord Do not bathe the newborn for 24hrs after birth. Do not forget to undertake routine checkup

Human resources

For quality service delivery with dignity and privacy to clients, an adequate number of competent HR is required for providing best possible care during pregnancy, delivery and postpartum period (see Table 13).

Table 13: HR requirement based on deliveries/month for a maternity wing

	Criterion	< 100 deliveries/ month	100 – 200 deliveries/ month	200 -500 deliveries/ month	500 deliveries & more/ month
Labour Ward	Human resource (calculated on basis of req. + off duty)	<ul style="list-style-type: none"> MO – 1-2 (avl. during routine hrs and on call during emergency) ANM/SN – 4 Sweeper – 3 DEO – 1 Guard – 4 	<ul style="list-style-type: none"> MO – 4 (for round-the-clock duty) SN – 4 ANM – 4 LT – 2 (for round-the-clock service) DEO – 1 Sweeper – 4 Guard – 4 	<ul style="list-style-type: none"> OBG – 1 (Mandatory) OBG/EmOC – 4 (for round the clock service) Anesth – 1 (Mandatory) exclusive for maternity cases LSAS – 4 (for round-the-clock service) Peads.– 1 MO – 4 (trained in BEmOC, FIMNCI, NSSK) MO & SN trained in PPIUCD SN – 8 ANM – 4 LT – 4 (for round-the-clock service) Sweeper – 4 (for round-the-clock service) 1 Certified ultra sonologist (on call after routine hours), Obg should be given training if ultra sonologist not available DEO – 1 Guard – 4 	<ul style="list-style-type: none"> OBG – 3 EmOC – 4 Anesth. – 1 exclusively for maternity cases LSAS – 4 Peads.– 1 MO – 4 (trained in BEmOC, FIMNCI, NSSK) MO & SN trained in PPIUCD SN – 10 ANM – 6 LT – 4 (for round-the-clock service) 1 Certified Sonologist (on call after routine hours) Sweeper – 4 (for round the clock service) DEO – 1 Guard – 4

	Criterion	< 100 deliveries/ month	100 – 200 deliveries/ month	200 -500 deliveries/ month	500 deliveries & more/ month
Labour Ward	No. of delivery table	2	4	6	8
	No. of delivery tray	4	8	16	20
	Pre & post observation beds	2	Pre – 4 & Post – 4	Pre – 8 & Post – 6	Pre – 8 & Post – 8
	Other beds	Nil	1 Septic 2 Eclampsia	1 Septic 2 Eclampsia 5 Post – op beds	2 septic 4 Eclampsia 10 Post – op beds
ANC/PNC Ward	Human resource	<ul style="list-style-type: none"> ● MO – No additional requirement ● ANM/SN – ● Sweeper – No additional requirement ● Guard – No additional requirement 	<ul style="list-style-type: none"> ● MO – No additional requirement ● SN – 6 ● Sweeper – No additional requirement ● Guard – No additional requirement 	<ul style="list-style-type: none"> ● Specialists (OBG/EmOC/An aesth./LSAS/Pea eds)- No additional requirement ● SN – 8 ● Sweeper –2 ● Guard – 4 ● Nursing orderly/Ward Boy – 4 	<ul style="list-style-type: none"> ● Specialists (OBG/EmOC/An aesth./LSAS/Pea ds) – No additional requirement ● SN – 8 ● Sweeper – 4 ● Guard – 4 ● Nursing orderly/Ward Boy – 4
ANC/PNC Ward	Beds in ANC & PNC	10	20	40	50/100 bedded MCH Wing depending upon caseload and bed occupancy of the existing hospital more than 70%

Note :

- Utilization of DEO should be as per the case load and as per the discretion of hospital in-charge
- DEO to do the documentation work related to MH training, MDR, MCTS, maintenance of case records
- Number of delivery tray will depend on the daily case load
- The above mentioned staff is exclusively for Maternity Wing

General requirements for LR

- Floor should be tiled, preferably anti-skid and white without any design on it
- Walls should also be tiled up to a height of 6 ft
- Remaining walls and ceiling should be painted white
- There should be windows and ventilators with frosted glass panes
- Windows to be covered with mesh to ward off flies, mosquitoes, insects
- Provision of running water (24x7) in the LR and adjoining toilets. In case of restricted supply, an overhead tank should be set up with facility to pump-up the water
- Washing area should be hands-free with elbow operated taps
- Every LR should have a refrigerator for keeping drugs such as Inj. Oxytocin
- Size of the LR and number of beds and delivery tables would depend upon the delivery case load of the facility
- Maternity Wing must have a separate store where weekly/monthly stock of essential drugs and supplies are kept
- In Level 3, LR should be centrally air conditioned with air handling unit
- Alternatively, cross ventilation with exhaust is required if air conditioning is not present
- If the unit is air conditioned, care must be taken to ensure newborn is protected from the cold and direct air flow not coming on to the NBCC

Infection prevention in LR

- Demarcated area for keeping slippers for the hospital staff and relatives and slippers to be used for entering the labour/pre-labour room
- Sterile gown to be given to patient going for delivery
- Floor should be cleaned as per defined GoI protocols
- Proper sterilization has to be ensured for gloves, instruments, linen etc needed for conducting a delivery. Standard procedures for disinfection and sterilization need to be followed as indicated in the annexure
- Sodium hypochlorite solution/bleaching powder solution must be used to decontaminate the used gloves, instruments etc. After use the item should not be thrown on the floor or elsewhere
- Disinfect the items in bleaching power solution followed by washing and autoclaving. After following the steps of decontamination then proceed further with the next step for sterilization

- Clean the floor and sinks with detergent (soapy water) and keep floor dry
- Clean table top with Phenol/bleaching solution
- Clean other surfaces like light shades, almirahs, lockers, trolley, etc with low level disinfectant Phenol (Carbolic Acid 2%)
- Clean electronic monitors with 70% alcohol
- In case of spillage of blood, body fluids on floor, absorb with newspaper (discard in yellow bin), soak with bleaching solution for 10 min and then mop
- Discard placenta in yellow bins
- Discard soiled linen in laundry basket and not on floor
- Disinfect with bleaching solution followed by washing and autoclaving
- Mop the floor every 3 hrs with disinfectant solution
- Clean the labour table after every delivery
- For protocols, see Gol protocol posters for DH to Medical College and Sub-centre to PHC/Non FRU-CHC

Table 14: Do's and Don'ts for Labor room

Do's	Don'ts
<ul style="list-style-type: none"> ● Equipment must be checked for its functionality during change in shifts of nursing staff ● Privacy and dignity of the woman to be ensured ● Use sterilized instruments for every delivery ● Each labour table must have a light source ● Use plastic curtains between tables ● LR should be draught free ● 20% buffer stock of LR drugs must be available all the time ● Temperature between 25-28 O C must be maintained in LR. Hilly, cold areas will need warmers during winters ● Injection Oxytocin should be kept in fridge (not freezer) ● Practise infection prevention protocols ● Initiation of breast feeding within half an hour 	<ul style="list-style-type: none"> ● Do not keep almirahs and metal cabinets in the LR ● Do not burn coal in LR ● Do not allow doctors/nurses and birth companion to enter LR without wearing gown, cap, slipper, mask ● Do not put cloth curtains between labour tables as they gather dust ● Do not allow people to enter labour room unnecessarily ● Do not put pressure on the abdomen for accelerating labour/delivery ● Do not give routine oxytocin IM or in drip for augmenting labour pains before delivery without indication ● Do not conduct frequent P/V examination ● Do not allow Dai, Mamta, ASHA, Yashoda conduct deliveries ● Do not slap the baby if not crying ● Do not keep the baby unwrapped

10 Key steps to ensure smooth working in the LR

1. Ensure that the 6 trays are kept arranged and available for use.
2. Equipment needed in the LR are available, in good condition and functional – labour table, BP apparatus, stethoscope, foetoscope/ Doppler, footstep, stool for companion, maintained partograph.
3. Environment in the LR is conducive – cleanliness, temperature maintained, curtains, windows with intact panes, privacy and attached functional toilet with running water.
4. NBCC with :
 - a. Radiant warmer plugged in functional and switched on at least half an hour before the time of delivery.
 - b. A pretested and functional newborn resuscitation bag and mask is kept ready on the shelf just below the radiant warmer.
5. Suction apparatus:
 - a. For Newborn: Dee Lees in the tray
 - b. For mother: Foot-operated/electrical suction machine is functional along with disposable suction catheter
6. Oxygen Cylinder: Filled, with key tied on it, new disposable tube is used every time oxygen is given; the oxygen flow is checked under water (in a bowl) before inserting the tube.
7. Hand washing area has soap and running water, long handle tap which can be closed with elbow.
8. Infection Prevention Practices observed; drums to store sterilized items such as gloves, instruments, linen, swabs and gauge pieces. Autoclave exclusive for LR available and functional; delivery instruments are wrapped in a sheet and autoclaved in enough numbers (1 set for each delivery); autoclaving is done at least twice a day (at the end of morning and evening shift); 0.5% chlorine solution prepared freshly every day and soiled items are first put into this before further treatment. Personal protective equipment is used while working in the LR.
9. Waste disposal – Colour-coded bins are available; these are emptied at least once a day or as and when they are full.
10. Records – Partograph, labour register, refer-in/refer-out registers are available and completed for each case.

Antenatal and postnatal ward

- The woman after delivery with the baby is shifted to PNC ward after 2 hours.
- Ideally at a high volume Level-3 facility, there should be separate ANC and PNC wards. However, in some situations, ANC and PNC cases can be kept in the same ward if there are more numbers of ANC or PNC cases.
- There should be adequate number of beds in PNC ward to ensure 48 hrs of stay after delivery.
- Each ward should have provision for hand washing, drinking water and toilets.
- Each bed should have a mattress, plastic sheet, a bed sheet and a mosquito net. A bedside locker, a stool and a bench should be made available for each bed.
- Adequate cooling for extreme hot conditions and room warmers for cold weather should be made available.
- The room should be well ventilated but without incoming direct draught of air, to prevent hypothermia of the newborn.
- Each bed should have a bed number. Baby should be with the mother on the same bed. Babies must have identification tags.
- Space between two beds should be at least 4 ft.
- Clearance between the bed head and wall should be 1 ft (0.25 m) and between the side of a bed and wall about 2 ft.
- The width of a dormitory or ward should be 20 ft.
- Width of the hospital corridor should be 3 m to accommodate two passing trolleys.
- Restricted entry must be ensured in the wards with provisioning of security guards.
- Appropriate IEC material should be displayed in the wards.
- Provision of TV and DVD player to show informative and educational films on breast feeding, KMC, exclusive breast feeding and complementary feeding. Short films on JSSK, family planning, how to take care of the new born and danger signs can be shown.
- Proximity to LR, operation theatre, blood storage area and other supportive services is desirable.
- Considering that each postnatal woman stays in the facility for 2 days on an average, the beds should be at least double the daily delivery load (1:2).
- However, additional provision should be planned for the months with maximum case load.

Nursing Station

Being the nerve centre of the ward unit, it should be so located that the nurses on duty can keep watch over as many patients as possible and are able to access the farthest bed as quickly as possible. The nursing station should be 20x20 ft and have:

- A large work table or counter in the open space with chairs/stools
- A built-in drug cupboard to keep medicines, stationery, forms, etc
- Attached bath and WC
- Wash basin
- A lockable cupboard to stock additional medicines
- A notice board & Cabinet for keeping files
- Telephone
- Patients' bell board

Treatment Room

A treatment room is required for each ward for physical examination, dressing and other procedures which cannot be carried out conveniently at the bed side of the patient. The room should be equipped with an examination table, a dressing trolley, adequate light (a spot light) and cabinets. Hand washing facilities should preferably be provided inside the treatment room.

Emergency Laboratory

Every PNC ward should have an emergency laboratory. Equipment and reagents needed to conduct following tests:

- Hb %
- Bleeding Time/Clotting Time
- Urine (albumin/sugar)
- Blood grouping/typing
- HIV testing
- Peripheral smear for Malaria Parasite/Rapid Diagnostic Test



Note: All other investigations to be carried out in the main laboratory

Table 15: Eclampsia/Septic Room

S.No.	Inventory (Essential)	Quantity (Minimum)
1.	Labour tables	2 Table
2.	Oxygen supply/cylinder	2
3.	Foetal Doppler	1
4.	Suction Machine (Electric)	1
5.	Foot Operated Suction Machine	1
6.	Stethoscope+ BP instrument	1
7.	Adult resuscitation kit	1 set
8.	Neonatal resuscitation kit	1 set
9.	Digital weighing machine	1 adult and 1 new born
10.	Air conditioners (to be calculated as per the volume specifications for air conditioners)	1-2
11.	Radiant warmers	1
12.	Pulse oxymeter – with 2 adult probe and 1 neonatal probe	1
13.	Delivery trays	2
14.	Episiotomy trays	2
15.	MVA tray	1
16.	Adult Emergency Drug Tray	1
17.	Newborn Emergency Drug Tray	1
18.	Mackintosh	2
19.	Kelly's Pad	2
20.	Open Dustbin Buckets	2
21.	Color Coded Bins	1 set
22.	Needle Cutter	1
23.	Wheel Chair	1
24.	Wall Clock	1
25.	Movable Shadow less Lamp	1
26.	Dressing Drum – All sizes	As per the requirement
27.	Baby Tray	1
28.	Thermometer	2
29.	Drapes and Linen	As per the requirement
30.	Emergency Call Bell	1

Table 16: Eclampsia room

S.No.	Inventory (Essential)	Quantity (Minimum)
1.	Labour cots with side railing	2
2.	Oxygen supply/cylinder	2
3.	Pulse oxymeter – with 2 adult probe and 1 neonatal probe	1
4.	Foetal Doppler	1
5.	Suction Machine (Electric)	1
6.	Foot Operated Suction Machine	1
7.	Stethoscope+ BP instrument	2
8.	Adult resuscitation kit	1 set
9.	Neonatal resuscitation kit	1 set
10.	Air conditioners (to be calculated as per the volume specifications for air conditioners)	1-2
11.	Pulse oxymeter – with 2 adult probe and 1 neonatal probe	2
12.	Delivery Trays	2
13.	Episiotomy trays	2
14.	Adult Emergency Drug Tray (including magnesium sulphate)	1
15.	Newborn Emergency Drug Tray	1
16.	Mackintosh	2
17.	Kelly's Pad	2
18.	Open Dustbin Buckets	2
19.	Color Coded Bins	1 sets
20.	Movable shadow less Lamp	1
21.	Wall Clock	1
22.	Torch	1
23.	Nebulizer	1
24.	Emergency Call Bell	1
25.	Drapes and Linen	As per requirement

RMNCH: Key components of MCH Wing

Figure 5: RMNCH Wing Plan: Ground Floor and First Floor

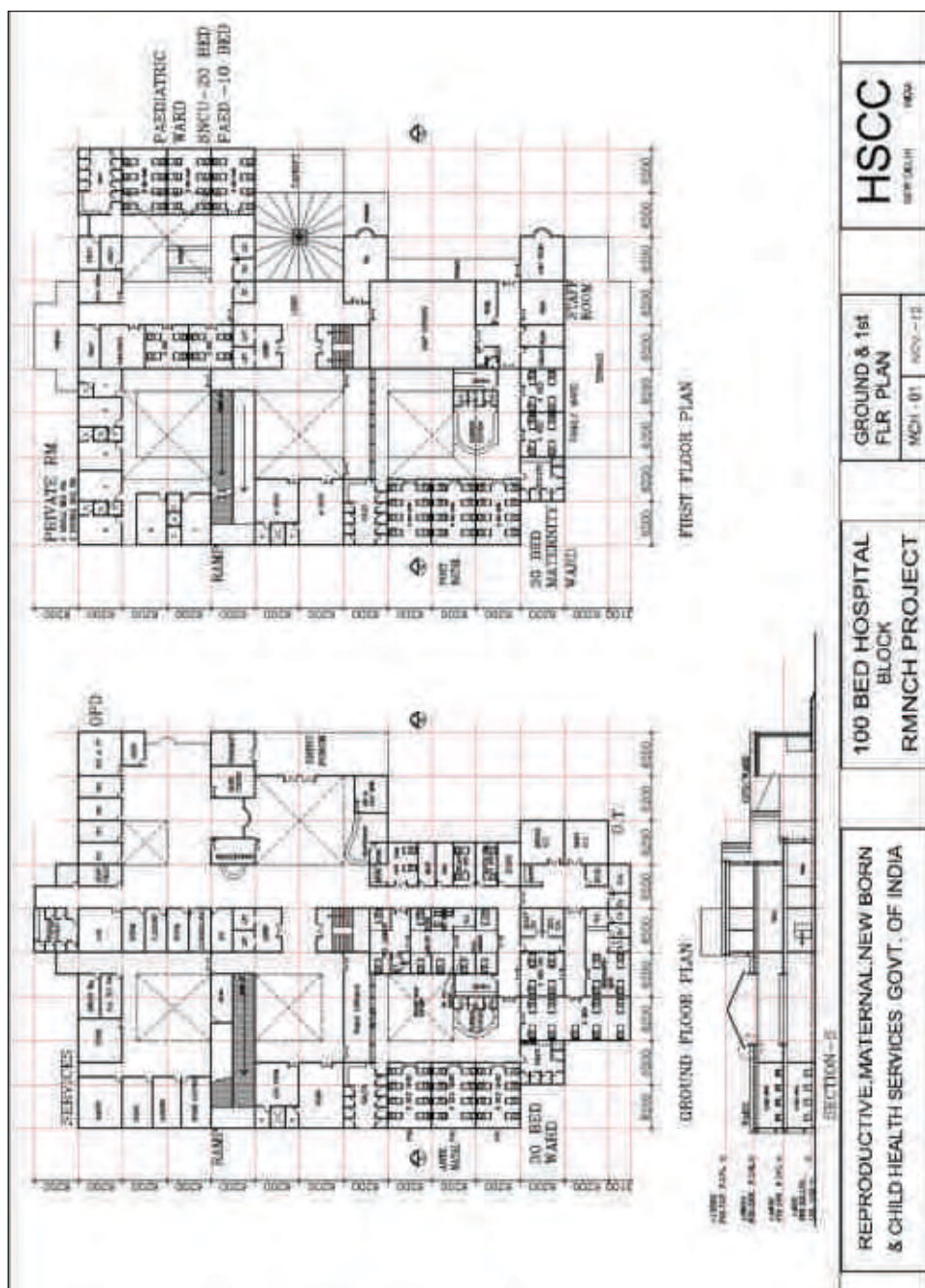


Figure 6: RMNCH – Ground Floor

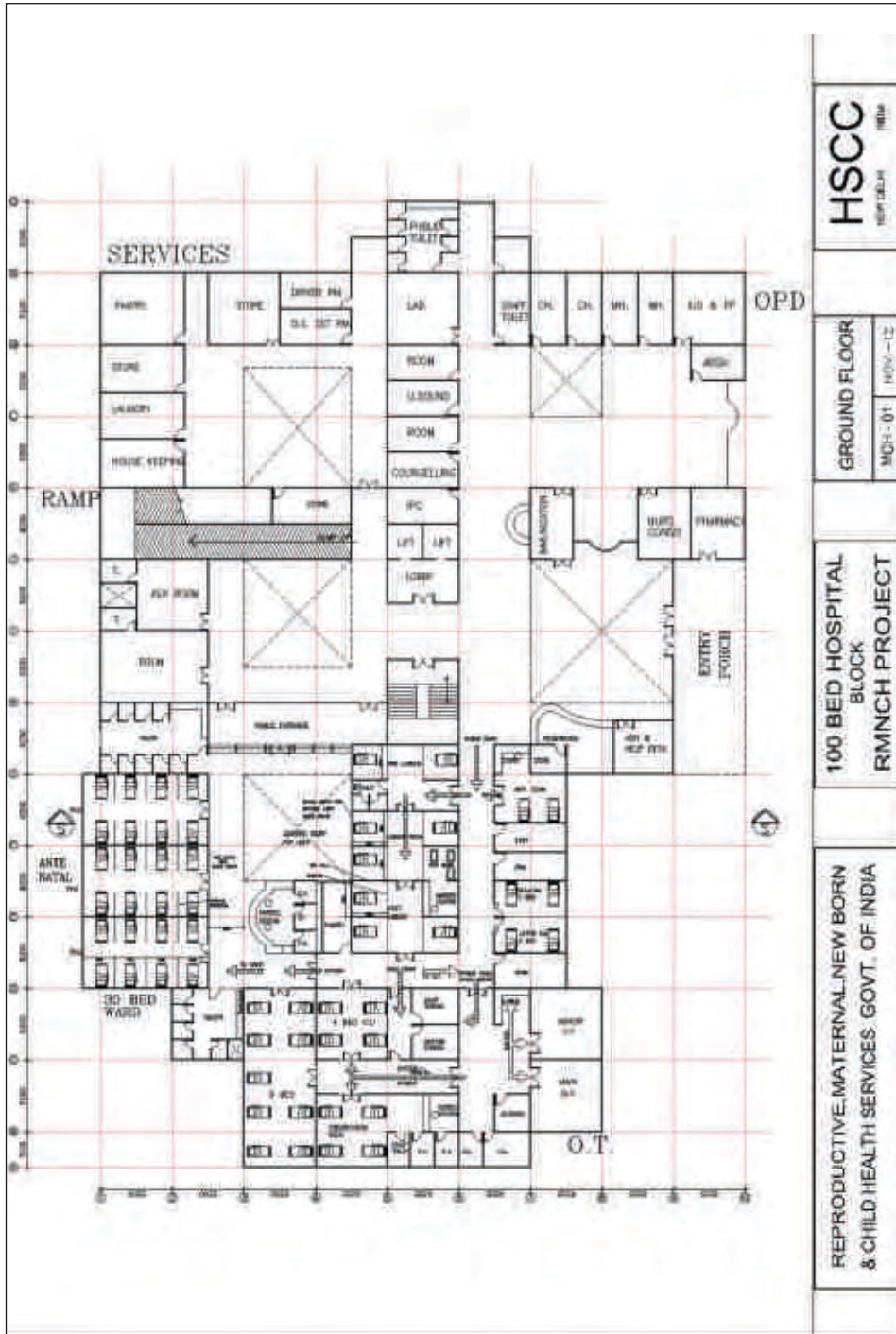


Figure 7: RMNCH – First Floor

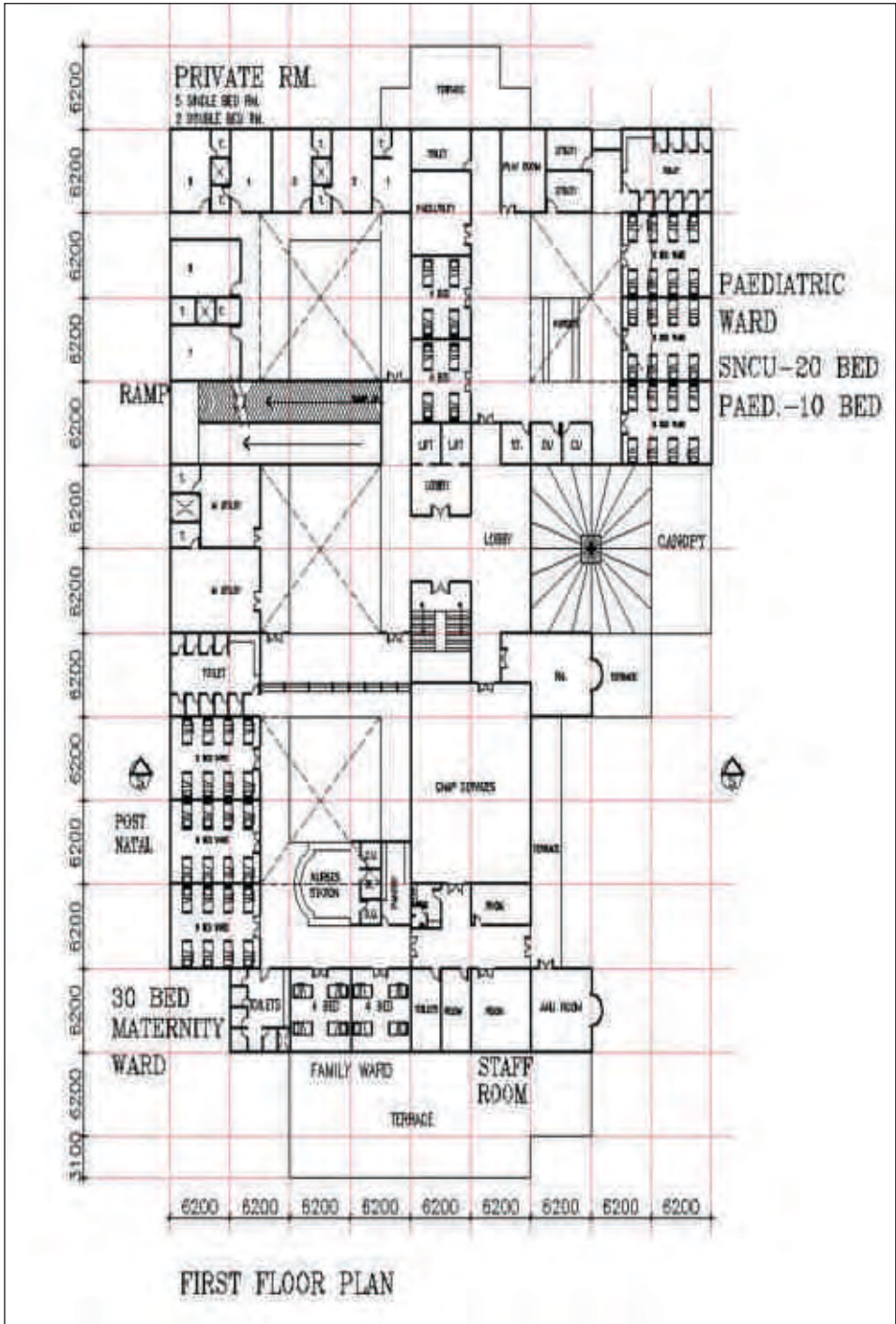


Figure 8: RMNCH – Second Floor

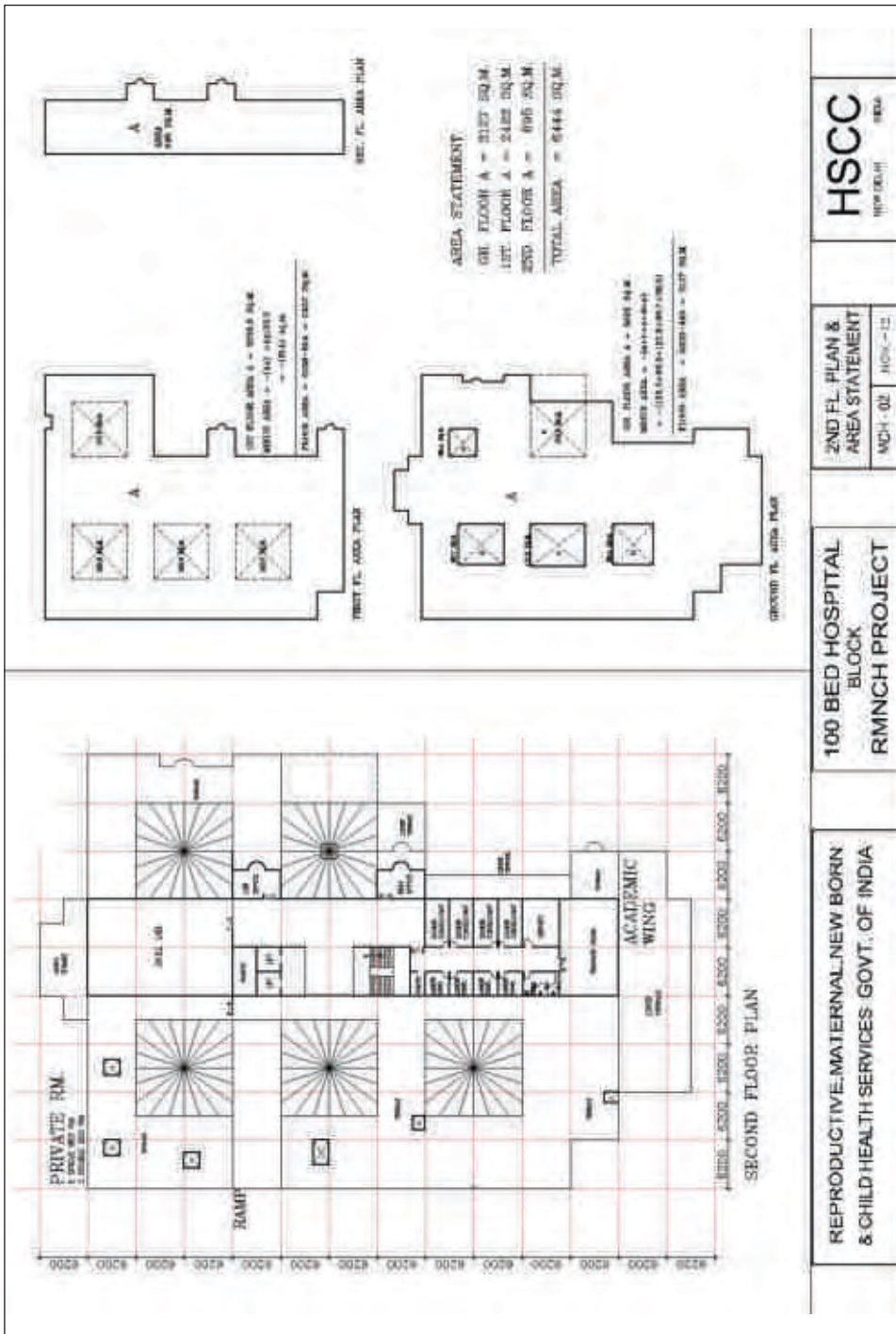


Figure 9: RMNCH: Labor Room Plan

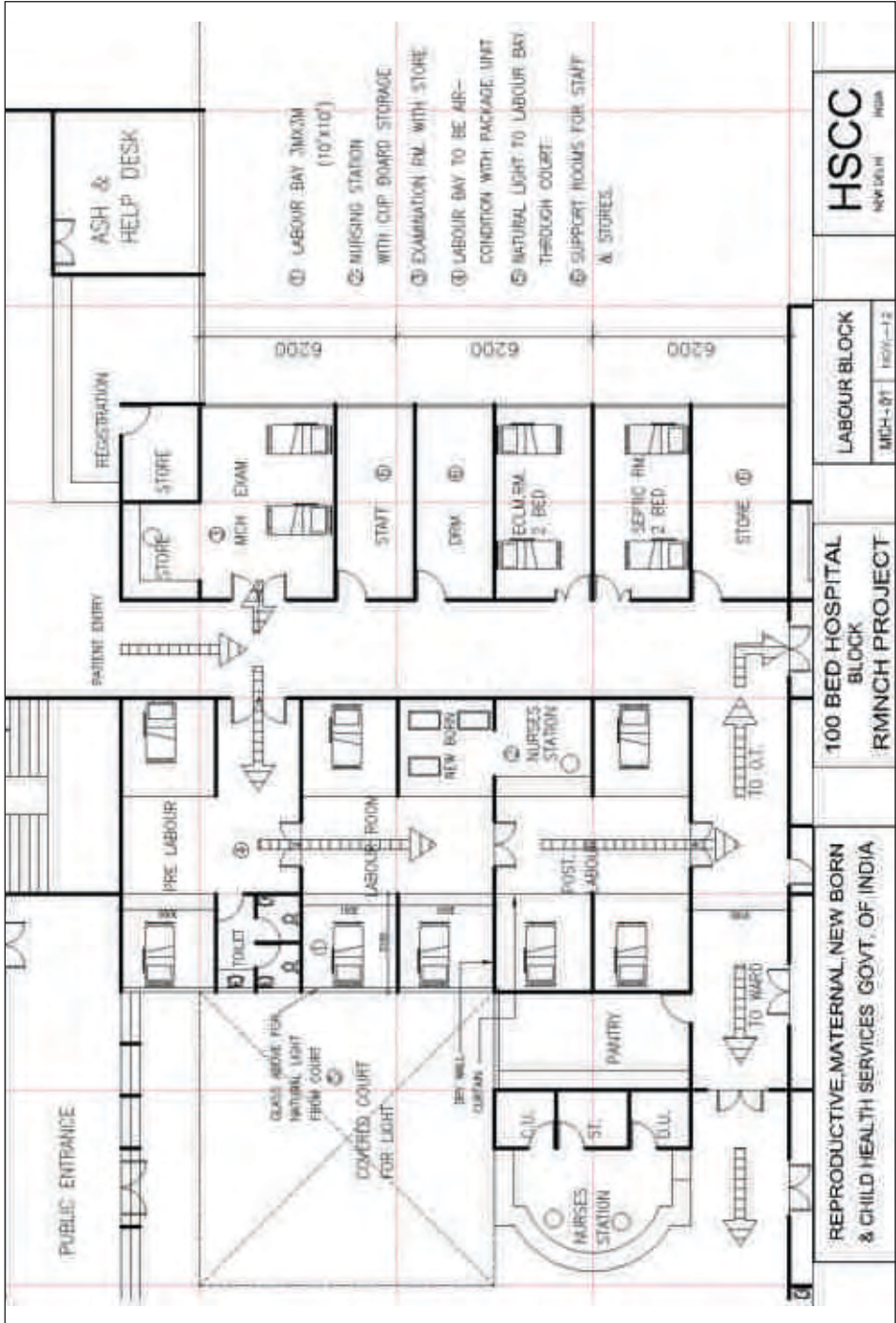


Figure 10: RMNCH – OT Plan

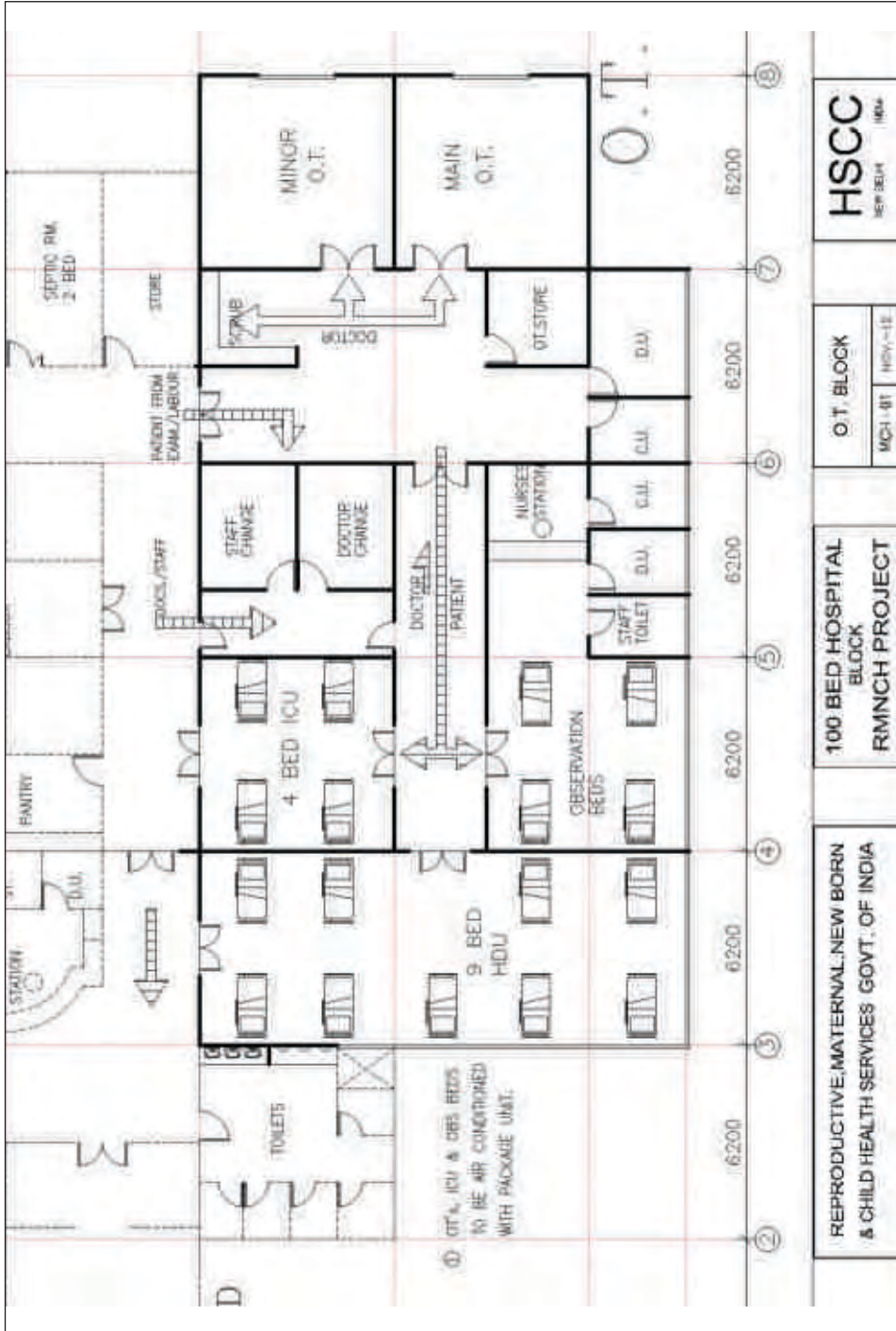


Figure 11: RMNCH – Ward Plan-I

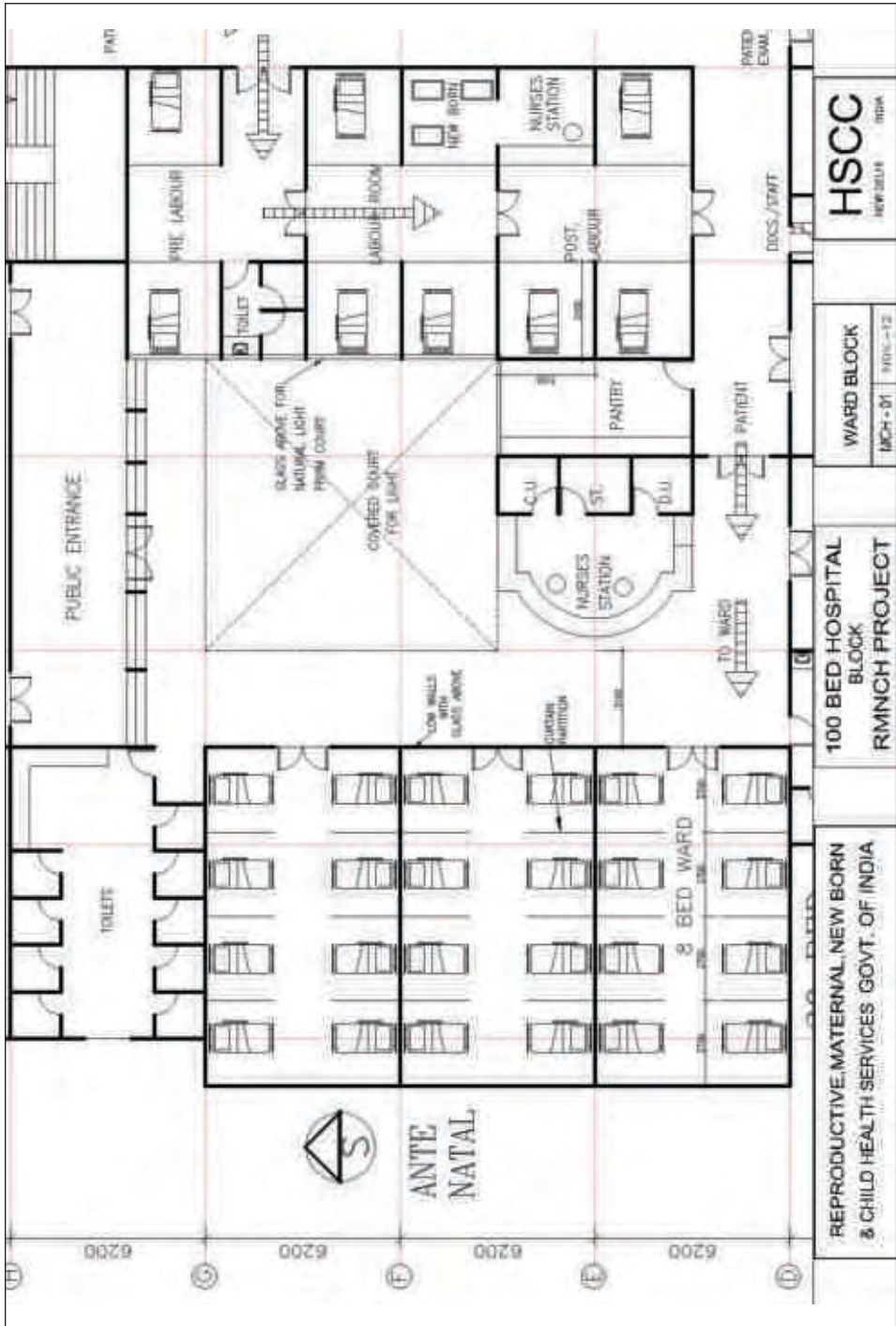


Figure 12: RMNCH – Ward Plan-II



Blood storage units⁵

As per GoI Guidelines and Amendments to Drug and Cosmetics Rules aided with support from the National Aids Control Organization (NACO), Blood storage units/ Blood banks should be established at all CEmOC facilities.

Every high volume L3 'delivery point' conducting CS should have BSU in the Maternity Wing to avoid delay in getting blood.

Operation theatre

Up to 15% of deliveries or other cases of complications of pregnancy, eg incomplete, inevitable, missed abortion, ectopic pregnancy, etc may need some sort of a surgical intervention; CEmOC facility must have functional OT Services. Although most facilities have an OT complex, placed below are some tips which the OT in-charge and facility manager has to keep in mind.

For ensuring sterility and keeping the OT free of microorganisms and also to ensure smooth functioning, the operation theatre area can be divided into four well defined zones (Fig 13).



⁵ Guidelines for setting up Blood storage centres at FRU, MH division, DoHFW. GoI 2003

Figure 13: Division of OT into Different Zones

Protective	Clean
<ul style="list-style-type: none"> ● Waiting area for relatives ● Buffer zone ● Changing room ● Pre-anaesthesia room ● Store room ● Autoclave room ● Trolley bay ● Control area for electricity supply ● Receiving/pre-operative area 	<ul style="list-style-type: none"> ● Preoperative area ● Recovery room ● Sister's/Doctor's room ● Anaesthesia store
Sterile	Disposal
<ul style="list-style-type: none"> ● OT ● Attached Scrub and hand washing room/area ● Anaesthesia room ● Instrument sterilization and trolley area ● NBCC ● Exit bay 	<ul style="list-style-type: none"> ● Sluice room ● Disposal corridor ● Janitor's closet

Ensure

- Restricted entry
- Instruments sterilized by autoclaving
- Separate set of instruments for each case
- Access to OT through a 'Buffer Zone'
- Proper occlusive clothing of OT personnel

OT planning should keep the following things in mind:

- It should be free from contamination and possible cross infection, protected from solar radiation, wind and dust.
- Situated close to the labour room, post-operative area, blood bank, blood storage unit and CSSD.
- Arrangements to be made for piped suction and supply of medical gases, electricity supply, heating, air-conditioning, ventilation and efficient lift service, if the theatres are located on upper floors.

- Optimal floor size of an OT should be between 18 to 20 sq ft.
- Complete tiling up to the ceiling must be done. Light coloured mosaic tiles could be used for the purpose for easy cleaning and washing.
- Floor should be easily washable, impervious, stain resistant and moderately electro conductive. Conductive flooring avoids hazards of electrocution and explosion triggered by accumulated anaesthetic gases near the floor.
- Doors should be single panel, sliding or double acting (can be opened from both sides) with a glass see-through panel. They must be hermetically sealed and at least 5 ft wide.
- Windows should be 3 ft 4 in above the floor. The opening may be about 16% to 20% of the floor area.
- Operation tables should be positioned on the floor plinth with pipes for anesthetic gases, oxygen, vacuum etc. emanating from the plinth.
- Fire protection measures should be in place at strategic points (eg, a dry fire extinguisher should be on the wall in the OT).
- OT should be centrally air-conditioned with air handling unit.
- Alternatively cross ventilation with exhaust is required if air conditioning not present.
- Glare free natural light is also of particular advantage in an OT.
- All electrical switches should be 1.5 meters above the floor.
- Isolation circuits should be provided for appliances connected to patients.
- All OTs should be connected to the emergency electric generator.

Strict quality control measures must be taken in OT:

- Microbiological sample should be taken randomly at 2 month intervals by Settle plate method.
- Random microbiological sampling to be done by settle plate /Air sampling method following construction/renovation work or any infectious outbreak.
- Any colony of Fungus/ Staph. aureus needs to be reported. If culture is found positive for these, servicing of air handling unit and /or AC duct recommended.
- Clean the floor and sinks with detergent (soap water) and keep floor dry.
- Clean table tops and other surfaces like light shades, almirahs, lockers, trolley, etc with low level disinfectant Phenol (Carbolic acid 2%).
- Clean electric monitors with 70% alcohol.
- In case of spillage of blood, body fluids on floor, absorb with newspaper

(discard in yellow bin), soak with bleaching solution for 10 minutes and then mop.

- Discard waste and gloves in proper bins and not on floor.
- Discard soiled linen in laundry basket and not on floor.
- Disinfect these items with bleaching solution followed by washing and autoclaving.
- Mop the floor every 3 hours with disinfectant solution.

Table 17: Do's and Don'ts for Operation theatres

Do's	Don'ts
● Operating room must be dust-proof and moisture proof	● Overhead beam and loose cables/pipes on the floor
● A separate FP OT must be planned	● Extension boards on the floor in an OT
● Only essential furniture and equipment to be used for surgeries should be allowed inside the OT	● Unnecessary entry of personnel in OT
● Cupboards for instruments and electrical switches should be operated from outside the OT	● Staff entering OT without wearing proper protective attire

General services required for the Maternity Wing

(A) Housekeeping, cleaning, dietary and laundry services

- a. Areas of daily cleaning and periodic cleaning should be identified and work schedule of the cleaners prepared accordingly.
- b. Standard cleaning practices and adequate and timely supply of cleaning materials should be ensured.
- c. There should be arrangements for disposal of biomedical and other wastes, which should be in accordance with the national and state regulations.
- d. The beds in the wards should have clean linen at all times. Bed sheets must always be changed before a new patient is put on a bed.
- e. Uninterrupted water supply and clean toilet facilities. If necessary, this can be outsourced.

- f. All facilities should have sufficient bed-sheets (number of beds x 3) pillow covers, blankets, towels, etc to ensure that the linen is changed at least every alternate day. Blankets should be washed at least once in a fortnight. Depending upon the in-patient load of the facility, the laundry services can be outsourced.
- g. Kitchen should easily be accessible from outside along with vehicular accessibility.
- h. A separate room for dietician and special diet. (Provision for those who need special diet in case of high BP/Diabetes, etc.).
- i. Kitchen is located away from OT so that the noise and cooking odours do not cause any inconvenience to the patients, but should involve the shortest possible time in delivering food to the wards.
- j. Clean utility room measuring 100–120 sq ft is used for clean storage, eg, drugs, intravenous sets/solutions, CSSD articles, packing dressings, treatment trolleys/trays for minor procedures. Bulk linen and cleaning materials could also be stocked here.
- k. Janitor room is in each ward for keeping mops, brooms, cleaning material and buckets. It should have a large sink for cleaning buckets and other equipment with adequate water supply.
- l. Adequate round-the-clock water supply should be available. Approximately 300 litre of water is required per bed.
- m. Avoid water storage inside the wards/LR as spillage leads to slippery floors and provides potential sites for mosquito harboring.
- n. Hospital laundry should be provided with necessary facilities for drying, ironing and storage of soiled and cleaned linens.
- o. Sterilization service is needed both in OT and LR. It needs sterilizers, autoclave, autoclave drums and disinfectant solutions and powders.

(B) Electricity and power backup

- a. All the areas in the facility should be appropriately lit according to the purpose to be served.
- b. Use CFLs which are environment-friendly.
- c. There should be industry switch for portable X-ray in facilities with high patient load and one each of 15 amp and 5 amp for every two beds.
- d. In case of interrupted power supply, back-up arrangements should be made, e.g. inverter, solar panels, genset (strength as per number of beds in facility).

- e. Priority areas for electricity back-up are LR, OT (major/minor), sick newborn care unit and cold chain room.
- f. Ward, corridors, toilets should be adequately lit.

(C) Telecommunication

- a. The facility should have a telephone connection.
- b. A public telephone booth can be outsourced for the clients, family members, and visitors.
- c. PA system and microphone in duty station of maternity wing, LR and OT, and speaker in the waiting area.
- d. Dedicated phone line for LR.
- e. Computer, net connectivity and data entry operator to manage records in Maternity Wing. (Resources available in SNCU and NRC can be utilized.)



(D) Good practices in the Maternity Wing

- a. Identify a Maternity Wing in-charge. This should be backed by issuing an administrative order.
- b. The Maternity Wing in-charge shall be responsible for preparing a duty roster so as to provide 24x7 cover.
- c. Maternity Wing staff should not be transferred to other areas.
- d. Display board should have name of the doctors on duty/call with their mobile numbers.
- e. If the drugs and the other consumables are under lock and key the handing over of the key should be mandatory along with the stock position between shifts.
- f. The duty roster should be displayed either outside of the LR or staff duty room.
- g. LR checklist should be maintained by the nurses during every change of shift.



Chapter 2 Infection Prevention



Chapter 2

Infection Prevention

Steps for ensuring infection prevention

For Maternity Wing, all staff including Grade III & IV staff should be given comprehensive orientation on infection prevention practices. The facility in-charge should ensure the availability of all necessary training equipment, etc. Infection prevention practices are based on the following principles:

- Every person (patient or healthcare worker) is considered infectious.
- Every person is considered at risk of infection.
- Hand washing is the most practical procedure to prevent spread of infection.
- Gloves are worn on both hands before touching broken skin, mucous membranes, blood or other body fluids, and before performing an invasive procedure.
- Protective barriers such as goggles, face masks, aprons, etc. are worn.
- Antiseptic agents are used to clean the skin or mucous membranes before certain procedures, or for cleaning wounds.
- All healthcare workers and facility staff follow safe work practices (eg, not recapping or bending needles, properly processing instruments, and suturing with blunt needles when appropriate).
- The sites for providing care and examination of patients are cleaned regularly and waste is properly disposed.
- Colour coded bins are available as per norms and requirement.

In a facility, successful implementation of infection prevention system is dependent on:

- Knowledge and skills of service providers including Grade III & IV staff
- Availability of consumables and equipment
- Adherence to the protocols

- Segregation of waste
- Transportation and disposal of waste

Infection prevention practices

The following should be in place at all facilities where maternal and newborn care is provided.

a. Hand washing

This is the most practical procedure to prevent spread of infection. Hands should be washed thoroughly with soap and water:

- Before and after examining a patient/client
- Before putting on gloves
- After contact with blood or other body fluids, or soiled instruments
- After removing gloves



b. Daily cleaning

- After each delivery, clean table top with Phenol/ bleaching solution.
- Clean floor and sinks with detergent (soap water) and keep floor dry.
- Clean table tops and others surfaces such as light shades, almirahs, lockers, trolley, etc with low-level disinfectant Phenol (carbolic acid 2%).
- Clean electrical monitors with 70% alcohol.
- In case of spillage of blood, body fluids on floor, absorb with newspaper (discard in yellow bin), soak with bleaching solution for 10 min and then mop.

c. Safe handling of sharps

Hypodermic (hollow bore) needles cause the most injuries to healthcare workers at all levels. The following safety guidelines should be followed when handling sharp instruments such as needles and syringes:

- Sharp instruments should never be passed from one hand directly to another person's hand.

- A needle holder should be used when suturing; the needle should never be held with the fingers.
- After use, needles and syringes should be decontaminated by flushing them with a 0.5% chlorine solution three times.
- Needles must be destroyed immediately using hub-cutter.
- Sharps should be disposed immediately in a puncture-resistant container. Needles should not be recapped, bent, broken, or disassembled before disposal.
- In case of needle stick injuries (used needle), please follow the Post Exposure Prophylaxis Protocol (PEP) for prevention of HIV.

d. Wearing sterile gloves

Gloves are the most important physical barrier that prevents the spread of infection. However, it is important to note that they do not replace hand washing. Gloves should be worn in the following situations:

- When there is a reasonable chance of hand contact with broken skin, mucous membranes, blood, or other body fluids.
- While performing an invasive procedure.
- While handling soiled instruments or contaminated waste items, or when touching contaminated surfaces.
- Sterile gloves should be worn without touching non-sterile surfaces.



e. Instrument processing

Soiled instruments, used surgical gloves, and other reusable items can transmit disease if infection prevention procedures are not properly followed. These procedures include the following:

- **Decontamination** makes inanimate objects safer to handle before cleaning and involves soaking soiled items in 0.5% chlorine solution for 10 minutes and wiping soiled surfaces such as examination tables with a 0.5% chlorine solution.
- **Cleaning:** After instruments and other reusable items have been decontaminated, they need to be cleaned to remove visible dirt and debris, including blood and body fluids. Cleaning is the most effective way to reduce

the number of microorganisms on soiled instruments and equipment.

- **Sterilization** destroys all microorganisms, including bacterial endospores, which are present on instruments or equipment. Instruments, surgical gloves, and other items that come in contact with the blood stream or other sterile tissue should be sterilized. Sterilization can be achieved using an autoclave, dry heat, or a chemical.
- **High-Level Disinfection (HLD)** destroys all microorganisms except some bacterial endospores on instruments or objects. It is the only acceptable alternative to sterilization and can be achieved by boiling, steaming, or soaking items in a chemical solution.

Sterilized and HLD items must be stored in a clean, dry area. Sterile packs and containers should be dated and rotated, using a “first in, first out” approach. Wrapped packages that remain dry may be used up to one week, and wrapped packages sealed in plastic up to one month. All autoclaved and wrapped instruments should have a tag which will indicate the status of sterilization after autoclaving.

Waste disposal

- General cleaning of hospitals and clinics, including floors, walls, equipment, tables, and other surfaces.
- Most waste (eg, paper, trash, food, boxes) at health centers and hospitals is not contaminated and poses no risk of infection to people who handle it.
- Some waste, however, is contaminated and, if not disposed properly, can cause infection.
- Contaminated waste must therefore be disposed separately from non-contaminated waste.
- Hospital waste should be segregated at source in colour-coded waste bins as per guidelines.
- Each facility must have housekeeping and waste management protocols depending upon the caseload, waste generated, available HR, and facility of waste disposal.
- Staff in the facility must be aware of infection prevention practices and protocols.





Chapter 3 Capacity Development



Chapter 3

Capacity Development

Continuous updating of skills and knowledge of staff is mandatory for ensuring provision of quality services. For this purpose, Standard Treatment Protocols must be displayed in the LR as a reminder and job aide. The different training at various levels are listed below:

Table 18: Training requirements

SC /Level 1	PHC /Level 2	FRU/Level 3
ANM trained in: <ul style="list-style-type: none"> ● SBA ● NSSK ● IUCD insertion ● Contraceptive update ● HBNC ● RTI/STI ● IMEP ● IMNCI ● NSSK ● Immunization 	<ul style="list-style-type: none"> ● SBA Trained SN/ANM ● MO trained in BEmOC ● MO trained in MTP ● MO trained in Minilap/ PPS ● MO trained in NSV ● MO/SN/ANM trained in IUCD insertion ● MO/SN/LT/ANM trained in RTI/STI/HIV screening ● FIMNCI ● NSSK ● MO/SN trained in PPTCT 	<ul style="list-style-type: none"> ● SBA Trained SN/ANM ● MO trained in LSAS ● MO trained in EmOC ● MO trained in MTP ● All MOs working in maternity should be BEmOC trained ● MO/SN/LT/ANM trained in RTI/STI/HIV screening ● Gynecologist/Surgeons trained in lap. sterilization ● MO trained in minilap/ PPS ● MO trained in NSV ● MO/SN trained in PPIUCD insertion ● MO/SN/ ANM trained in IUCD insertion ● MO/SN trained in PPTCT



MoHFW has developed skill based in-service trainings for various healthcare providers (See Table 19).

Table 19: Capacity development in MNH

Standard trainings in Maternal & Newborn health				
Type	Trainees	Trainers	Duration	Training site
SBA	ANM, LHV, SN	Gynaecologist, Paed, Nurses, ANM tutors	21 days	DH and select institutions
BEmOC	MO	Gynaecologist Paediatrician	10 days	Medical college and identified DH
CEmOC	MO	Gynaecologist Paediatrician	16 weeks	Medical college and identified DH
LSAS	MO	Anesthetist	18 weeks	Medical college and identified DH
MTP	MO	Gynaecologist	2 weeks (extendable to 3) and 25 mandatory cases	Medical College and identified DH
NSSK	ANM, SN, MO	MO, Paediatrician	2 days	SDH, CHC, DH
IMNCI	ANM, LHV, AWW	MO, LHV, ANMTC faculty	8 days	PHC, CHC, SDH, DH
FIMNCI	SN, MO of 24x7 PHC/CHC/DH and Paediatrician	Paediatrician, Faculty of Community Medicine department	11 days	Medical College
IMNCI plus (ASHA module 6 & 7)	ASHA	ASHA facilitator	20 days (5days x 4 times)	PHC, CHC, SDH
FBNC	Paediatrician, MO and SN of SNCU	Paediatrician (neonatologist)	4 days	SNCU (DH)
Blood storage centre	MOs and Lab Technicians	Blood bank officer and other staff	3 days	At blood bank

Table 19: Capacity development in MNH...continued

Standard trainings in Maternal & Newborn health				
Type	Trainees	Trainers	Duration	Training site
	ANM, LHV, SN, MOs	Gynaecologist/ Master Trainers	6 days	DH, SIHFW/DTC
PPIUCD Insertion	Gynaecologist/ MO/SN	Gynaecologist	3 days	Medical College/ DH
Laparoscopic Tubal Ligation	Gynaecologist and surgeons	Certified master trainer in laparoscopic sterilization	12 days	Medical college
Tubal Ligation (Conventional/Minilap)	MO	Certified master trainer in minilap	12 days	Medical college and identified DH
NSV	MO	Certified NSV trainers	5 days	Medical college
RTI/STI	ANM, LHV, SN, MO, Lab tech	Gynaecologist/ Dermatologists	2 days	Identified DH
PPTCT	MO/SN/Lab Technicians and Counsellors	Staff from Medical Colleges and AIDS Control Societies	Initial training: 5 days Refresher training: 2 days	Medical colleges and identified DH and other suitable sites

The training site for most skill-based trainings is either the Medical College or the District Hospital. Hence, it is essential that they too routinely practice the training protocols. To ensure this, the training site has to be accredited as per norms.

Skills lab

A Skills Lab serves as a prototype demonstration and learning area for healthcare providers. Simulation-based learning in Skills Labs is a concept that enables to refine skills of services providers through frequent practice. These Labs will also enable in institutionalizing the use of Standard Operating Procedures (SOPs) so that they become a part of routine practice. The Skills Labs will have an edge over other didactic learning methods by providing the opportunity for repetitive skills practice, simulating clinical variations in a controlled environment.

Based at each district level, the labs are equipped with a number of skills stations as per the skills requirements at various levels and as listed in the recommended client practice under various training programmes. The Labs are open 24x7 for the use of MOs, staff nurses, ANMs, LHVs and other supervisory staff. Each Skills Lab has a number of skills stations for specific skills that include:

1. Managing complications
2. Antenatal care
3. Intra-natal care
4. Family Planning
5. Documentation
6. Counseling
7. Newborn care
8. Infection prevention (IMEP)

(See complete list placed at Annexure 8).





Chapter 4 Reporting and Recording System



Chapter 4

Reporting and Recording System

To capture MNH services, each facility must maintain the following records in form of registers, log books, case records, etc.

- | | |
|---------------------------------------|---|
| 1. Admission Register | 9. Lab Register |
| 2. Labour room Register | 10. Referral in/Referral Out Register |
| 3. Antenatal/postnatal Register | 11. MCP Card |
| 4. MTP Register | 12. Admission Sheets/ Bead Head Tickets |
| 5. Interval & PPIUCD Register | 13. Discharge Slip |
| 6. OT Register | 14. Referral slip |
| 7. FP Register | 15. Partograph (samples annexed) |
| 8. Maternal Death Records & Registers | |

Registers in OPD/PPOT/MW may be specified separately.

I. Health information system needs to be established at each facility to:

- Enable case-based tracking
- Assess the coverage of services within the catchment area
- Compare input vs output of a particular service



The MCP card initiated by the GoI is a recording tool that attempts to capture first hand information by a service provider. Other recording formats such as ANC register, VHND formats, PNC registers and LR registers have yet to be standardized. These registers should ideally be feeding into the reporting formats. The Mother and Child Tracking system enables tracking of each pregnant woman and child for their ANCs and immunization. It is also a feedback to ANMs, ASHAs and others to ensure that each pregnant woman receives her ANC and PNC services in time and children their immunization. An online module for name-based tracking has been developed and integrated with the HMIS web portal. The reference date for starting this system is all new pregnancies registered from December 1, 2009 onwards at the first point of contact of the pregnant mother with the health facility/provider, and all children born on or after December 1, 2009. All pregnancies, regardless of place of service delivery, need to be captured in this.

Table 20: Records to be maintained & output indicators calculated periodically

Records to be maintained		
Level 1	Level 2	Level 3
<ul style="list-style-type: none"> ● Counter foil of MCP card ● Antenatal Register or MCH Register ● LR Register (includes 1st PNC) ● Out-referral Register ● Case sheet/ Bead Head Ticket-cum-Partograph ● Eligible Couple Register ● IUCD Insertion & Removal Registers ● Counterfoil of IUCD Client Card ● Discharge Slip ● Birth Certificate ● Line listing of Maternal deaths/Infant deaths reported from the area ● Line listing of severely anemic pregnant women 	<p>Level 1, plus the following:</p> <ul style="list-style-type: none"> ● LR sterilization ● Referral in-referral out Register ● Stock register ● MTP Register & other records ● FP service delivery Register ● Lab Register ● USG Register + Form F ● Minor OT Register ● (Admissions will be captured in the facility admission registers) ● Handing over-taking over 	<p>Level 2, plus the following:</p> <ul style="list-style-type: none"> ● Admission register ● OT register ● OT sterilization register ● Blood transfusion register ● RTI/STI register ● PPTCT register ● FP service delivery register, including PPIUCD ● Maternal death/ infant death record/register
Reports to be generated		
Level 1	Level 2	Level 3
<ul style="list-style-type: none"> ● % of women registered against expected pregnancies ● % women registered in 1st trimester of pregnancy out of total registered ● % women who received 4 ANC checkups out of total registered ● % women with severe anaemia out of total registered ● % of still birth (fresh and macerated) out of total live births ● % of newborns required resuscitation out of total live births ● % IUCD inserted against ELA ● Dash board indicators for PPTCT to be reviewed where appropriate 	<p>As in Level 1, plus the following:</p> <ul style="list-style-type: none"> ● % women with complications (APH, PIH, malaria, diabetes, Eclampsia, PPH) out of total registered ● % women with HIV positive out of total registered ● Proportion of complicated cases managed ● % of samples collected from Labour room showing significant contamination ● Proportion of out-referrals ● No. of MTPs in 1st trimester ● % of pregnant women screened for HIV ● Distribution of maternal deaths as per cause ● Proportion of PPS against total sterilizations ● Dash board indicators for PPTCT to be reviewed where appropriate 	<p>As in Level 2, plus the following:</p> <ul style="list-style-type: none"> ● C-section rate ● Case fatality rate in SNCU ● Case fatality rate for obstetric complication ● % of samples collected from OT showing significant contamination ● % of HIV positive women followed up for Nevirapine ● PPTCT protocol counseled for the HIV positive mother and informed choices availed by the mother as per the protocol (NVP, Elective CS, Breast feeding, etc) ● % C-section given blood transfusion ● Proportion of 2nd trimester MTP ● In-referral and out-referral rate ● % PPIUCD inserted against total IUCD ● Proportion of PPIUCD insertions against the number of deliveries ● Dash board indicators for PPTCT to be reviewed where appropriate

Chapter 5 Referral Transport



LEFT SIDE

National Ambulance Service (NAS)



Entitlements

- Free for pregnant women and sick newborns
- "Add others entitlements"

RIGHT SIDE

National Ambulance Service (NAS)



 :102/108 (Toll Free)

"See applicability"

A Joint Initiative of MOHFW, Govt of India and State of.....



REAR SIDE

National Ambulance Service (NAS)

Entitlements

- Free for pregnant women and sick newborns
- "Add others entitlements"



 :102/108 (Toll Free)

"See applicability"

FRONT



AMBULANCE

Chapter 5

Referral Transport

An effective perinatal referral transport service is critical for preventing maternal deaths in India. It enables a pregnant woman and her newborn needing emergency care to reach an adequately resourced facility safely and well in time and condition that provides them a fair chance for survival and to receive appropriate care.

At present, there are a number of systems for emergency or referral transport services operating in rural India, with varying modes of operation and catering to different situations. It is important that every model of referral transport provides a minimum acceptable level of services at an optimal cost. The states must plan for an appropriate mix of ambulances with basic and advanced life support, patient transport systems based on epidemiological conditions, geographical conditions, and actual case load. Every state must ensure adequate coverage by basic ambulances catering to all parts of the districts.

Gol has a mandate to establish a network of basic patient-care transportation ambulances whose objective would be to reach beneficiaries in rural areas within 30 minutes of receiving a call. Under NRHM, states are provided financial assistance for establishing emergency response services and patient transport ambulances. States have the flexibility to transport pregnant mothers and sick newborns using any of the different models available, including those implemented as public-private partnership models. It is up to the states how they establish the necessary linkages between home and health facility, between different levels of health facilities, and for drop-back home for pregnant women before and after delivery and sick neonates. These services are to be provided free of cost as envisioned under the Janani Shishu Suraksha Karyakaram (JSSK) launched on June 1, 2011.

Key Steps in referral transport

- Referral transport to be linked with a centralized 24x7 call centre having a universal toll free number either district-wise or state-wise as required.

- Vehicles to be GPS fitted for equitable geographical distribution and effective network and utilization.
- A prudent mix of basic level ambulances and emergency response vehicles to be established with focus on adequate coverage by basic-level ambulances.
- Free referral transport to be ensured for all pregnant women and sick neonates accessing public health facilities.
- Response time for the ambulance to reach the beneficiary should be within 30 min and the woman should reach the health facility within the next 30 min.
- Rigorous and regular monitoring of use of vehicles to be done.
- Universal access to referral transport throughout the state, including transport to and from difficult and hard to reach areas, to be ensured.

Steps to be taken for ensuring assured referral transport

- During the 1st ANC, the toll free number called for ambulance must be recorded in the MCP card, and the beneficiary and her attendants informed about it.
- All referral vehicles must have information on the functional Delivery Points (DPs) such as PHCs, CHCs, SDH, etc to avoid any delay in seeking treatment.

National ambulance services

With the fund support of NRHM, States have introduced various models of referral transport services in the country e.g. Mahatari express in Chhattisgarh, Janani Express in Odisha/MP, Samajvadi Seva in UP, Haryana Swasthya Vahan Sewa in Haryana, EMRI models in different States like Andhra Pradesh & Uttarakhand, Mamta Vahan in Jharkhand etc. However it is apparent that there has been poor access and utilisation of these referral vehicles, across the States. This may be due to several factors like lack of uniformity in terms of a single call number, type of vehicles, color coding, design of vehicle, and inadequate IEC etc.

Hence a policy decision has been taken by GOI which states, a standardized display on the patient transport vehicle/ambulances funded under NRHM. It has been named as “National Ambulance Service”, which is simple, apt and understandable across the country without any barrier to the language. Uniformity in terms of name, design, colour and some key conditionalities have been worked out and have been shared with the States.

RIGHT SIDE



National Ambulance Service (NAS)

:102/108 (Toll Free)
"(as applicable)"

A joint Initiative of MOHFW, Govt of India and State of.....

LEFT SIDE (To be in Regional language/Hindi, as applicable)



National Ambulance Service (NAS)

:102/108 (Toll Free)
"(as applicable)"

Entitlements

- Free for pregnant women and sick newborns
- "Add others entitlements"

REAR SIDE

National Ambulance Service (NAS)

Entitlements

- Free for pregnant women and sick newborns
- "Add others entitlements"

 **:102/108 (Toll Free)**
(as applicable)

The rear side sign features a green horizontal bar at the top. Below it, the text "National Ambulance Service (NAS)" is written in large, bold, red letters. Underneath, the word "Entitlements" is written in blue, followed by a list of two bullet points: "Free for pregnant women and sick newborns" and "Add others entitlements". To the left of the text is the National Rural Health Mission logo, which consists of a red circle containing white silhouettes of a man, a woman, and a child, with a yellow sun above them. Below the logo is the text "NATIONAL RURAL HEALTH MISSION" and "राष्ट्रीय ग्रामीण स्वास्थ्य मिशन". To the right of the logo is a blue telephone handset icon, followed by the text ":102/108 (Toll Free)" in red, and a small note "(as applicable)" in red below it. A second green horizontal bar is at the bottom of the sign.

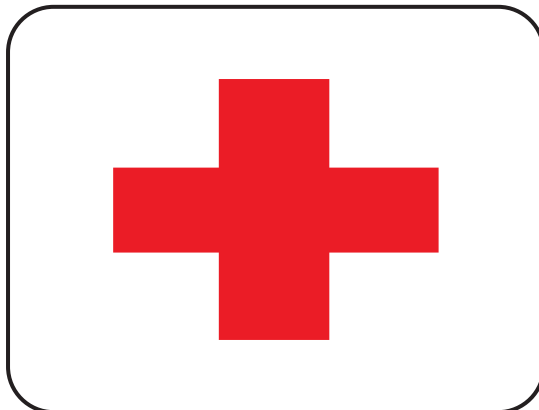
FRONT

NATIONAL RURAL HEALTH MISSION
राष्ट्रीय ग्रामीण स्वास्थ्य मिशन

AMBULANCE

The front sign features a green horizontal bar at the top. Below it, the National Rural Health Mission logo is centered, consisting of a red circle with white silhouettes of a man, a woman, and a child, and a yellow sun above them. Below the logo is the text "NATIONAL RURAL HEALTH MISSION" and "राष्ट्रीय ग्रामीण स्वास्थ्य मिशन". Below the logo, the word "AMBULANCE" is written in large, bold, red letters. A second green horizontal bar is at the bottom of the sign.

TOP



Chapter 6 Quality Assurance





Chapter 6

Quality Assurance

Importance of improving quality of health care needs no emphasis. Experience has shown that improved quality has a positive impact on clients' willingness to accept and effectively use services.

Ensuring quality

- Quality of care is ensured by adhering to professional standards
- Standardized processes and procedures are followed to deliver services
- Improving the service quality by focusing on identified gaps
- Continuously review resolving of identified problems

Critical steps for ensuring Quality Assurance

- Adhering to and practicing established and standard technical protocols
- Continuous handholding and supportive supervision
- Ensuring IMEP practices
- Prescription audits
- Regular interaction with clients
- Putting in place grievance redressal mechanisms
- Maternal Death Review at both facility and community level to ensure that corrective steps are taken to fill systemic gaps, if any
- Convening regular meetings of the district and state quality assurance committees.

Regular review at state and district level is critical for quality outcome of any programme. It is therefore suggested that the state programme officers review programmes every month, and the Principal Secretary/Mission Director every three months. At the district level, the District CMO/District Programme Officer should review implementation of programmes every month.

The state and district programme officers must undertake field visits with checklists before each review to understand field reality and subsequent corrective actions. The checklist should contain both managerial and technical aspects including critical quality issues. Simple bulleted points of action to be taken at different levels should be drawn up within 48 hrs of every review meeting and the action taken should be reviewed by the controlling officers and supervisors.





Annexures



Annexure 1 | Definitions and Benchmarks

Some Definitions

Maternal death is the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes

Late maternal death is death of a woman due to direct or indirect obstetric causes after 42 days but within 1 year after termination of pregnancy.

Lifetime risk of maternal death is the probability of dying due to maternal cause during a woman's reproductive lifespan.

Live birth is the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of the pregnancy, which, after such separation, breathes or shows any other evidence of life - e.g. beating of the heart, pulsation of the umbilical cord or definite movement of voluntary muscles - whether or not the umbilical cord has been cut or the placenta is attached. Each product of such a birth is considered live born.

Neonatal death is the number of deaths during the first 28 completed days of life per 1,000 live births in a given year or period.

Perinatal mortality rate refers to the number of perinatal deaths per 1,000 total births. It is usually reported on an annual basis. It is a major marker to assess the quality of health care delivery. Comparisons between different rates may be hampered by varying definitions, registration bias, and differences in the underlying risks of the populations.

Neonatal mortality rate is the number of deaths during the first 28 completed days of life per 1,000 live births in a given year or period. Neonatal deaths may be subdivided into early neonatal deaths, occurring during the first seven days of life, and late neonatal deaths, occurring after the seventh day but before the 28 completed days of life.

Infant mortality rate is the number of deaths of infants under one year old per 1,000 live births.

Still birth is birth of a baby who is born dead after 28 completed weeks of pregnancy.

Maternal mortality ratio is the ratio of the number of maternal deaths per 100,000 live births.

Maternal mortality rate is the number of maternal deaths in a given period per 100,000 women of reproductive age during the same time period.

Case fatality rate is the ratio of the number of deaths caused by a specified disease to the number of diagnosed cases of that disease.

Crude birth rate is number of resident live births for a specific geographic area during a specific period divide by mid-year population for that area and multiplied by 1000.

Contraceptive prevalence rate- is the proportion of women of reproductive age (15-49 years) who are using (or whose partner is using) a contraceptive method at a given point in time.

Total fertility rate: The average number of children that would be born per woman if all women lived to the end of their childbearing years and bore children according to a given fertility rate at each age. The total fertility rate is a more direct measure of the level of fertility than the birth rate, since it refers to births per woman. This indicator shows the potential for population change in a country. A rate of two children per woman is considered the replacement rate for a population, resulting in relative stability in terms of total population numbers.

Eligible couple- An eligible couple refers to a currently married couple wherein the wife is in the reproductive age, i.e., between the ages of 15-49 years.

Postpartum sterilisation- Female sterilisation immediately or within 7 days after giving birth, or, any time 6 weeks or more after childbirth if it is reasonably certain she is not pregnant.

PPIUCD- Postpartum IUCD may be inserted:

- Post placental- Within 10 minutes of the delivery of placenta
- Within 48 hrs of birth of baby
- Intra-caesarean- during caesarean section, after the delivery of placenta.

Skilled birth attendant an SBA is a person who can handle common obstetric and neonatal emergencies and is able to timely detect and recognize when a situation

reaches a point beyond his/her capability, and refers the woman/newborn to an appropriate facility without delay.

Contraceptive prevalence rate- is the proportion of women of reproductive age (15-49 years) who are using (or whose partner is using) a contraceptive method at a given point in time.

'Delivery points' are those health facilities which fulfill the Government of India criteria of minimum benchmark of performance, in terms of numbers of deliveries conducted, right from Sub-centre to District Hospital. The benchmarks set for different levels of health facilities are as under:

Benchmarks for delivery points

Health facility	For all other states	North-east states
Sub-centres	>3 deliveries per month	> 2 deliveries per month
Primary Health Centres	>10 deliveries per month	> 6 deliveries per month
Non-first Referral Units (FRU)/ Community Health Centres (CHC)	>10 deliveries per month	> 6 deliveries per month
FRU-CHC/Sub District Hospital (SDH)	>20 deliveries per month	> 20 deliveries per month
District Hospital/ District Women Hospital	>50 deliveries per month	> 30 deliveries per month
Medical Colleges	>50 deliveries per month	> 50 deliveries per month
Accredited PHF	>10 deliveries per month	> 10 deliveries per month

Annexure 2 | Janani Shishu Suraksha Karyakram (JSSK)

Entitlements for pregnant mothers

- Free delivery
- Free caesarian section
- Free drugs and consumables
- Free diagnostics (blood, urine test and ultrasonography etc)
- Free diet (Up to 3 days for normal delivery and up to 7 days for caesarian section)
- Free provision of blood
- Free transport from home to health institutions, between health institutions in case of referral and drop back home
- Exemption from all kinds of user charges

Entitlements for sick newborns till 30 days after birth

- Free and zero expense treatment
- Free drugs and consumables
- Free diagnostics
- Free provision of blood
- Free transport from home to health institutions, between health institutions in case of referral and drop back home
- Exemption from all kinds of user charges

Annexure 3 | List of standard practice protocols Recommended location

Standard practice protocols should be displayed in LR/ANC/PNC wards as appropriate. Here is a indicative list:

S No	Poster theme	Recommended location
1	Antenatal checkup	*Additional in EmOC services
2	Antenatal examination	ANC clinics, VHND sites
3	Postnatal check up	PNC clinics, VHND sites, wards, waiting area in OPD
4	Simplified partograph	Nursing station, LR, Staff duty room
5	Vaginal bleeding before 20 weeks	Labour room, OT
6	Vaginal bleeding after 20 weeks	Labour room, OT
7	Management of PPH	Labour room, OT
8	Eclampsia	Labour room, OT
9	AMTSL	Labour room, OT
10	Newborn resuscitation	Newborn corner, SCNU, OT
11	Kangaroo care	PNC ward, SCNU, PNC clinics, VHND sites, waiting area in OPD
12	Breastfeeding	Labour room, PNC ward, ANC/PNC clinics, waiting area in OPD, VHND sites
13	Hand washing	Hand washing area in OT/LR/SCNU, ANC clinic, OPD chambers
14	Preparation of 1 litre bleaching solution	Utility room, sterilisation room, nursing station, staff duty room
15	Infection prevention	OPD, Labour room, wards, laboratory, X-ray room, VHND sites
16	Processing of used items	Utility room, sterilisation room, Nursing station, staff duty room
17	Pre Eclampsia*	OPD, ANC clinic, ANC ward
18	LR Sterilisation*	LR, nurses duty station
19	OT Sterilisation *	OT, nurses duty station
20	Management of atonic PPH *	Labour room, OT

* Additional in EmOC services

1) ANC Register...continued

ANC 2							ANC 3						
Abdominal examination							Treatment provided for complication	Date of visit	Gestational age in weeks	Weight (in Kg)	BP	Hb	Urine examination
Fundal height	Lie/ presentation	Foetal Movement (Normal/reduced absent)	Foetal heart rate per minute	PV, If done	Complications, if any, specify								
28	29	30	31	32	33	34	35	36	37	38	39	40	

1) ANC Register...continued

ANC 4		TT 1/ Booster Date	TT 2 Date	Any other investi gation, pls specify	No. of IFA tablet given	Compr ehensi ve course lling provide d (y/n)	Complic ations, if any, specify	Treatment provided for complicati on	Referred out, reason and place	Admitted, reason and place	Remarks, if any																				
Fundal height	Lie/ presen tation	Foetal Movem ent(Normal/ reduced absent)	Foetal heart rate per minute	PV, If done	Complic ations, if any, specify	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71								

Monthly abstract - ANC register

1	Total No. of cases registered		
2	No of ANC registered at 1st Trimester		
3	No. ANC completed 4 checkup		
4	No. received TT1		
5	No. received TT2/Booster		
6	No. provided IFA tablets		
7	Management of complications	No. identified	No. managed
	No. of anaemia cases		
	No. of severe anaemia cases		
	No. of hypertensive cases		
	No. of cases with haemorrhage < 20 weeks		
	No. of cases with haemorrhage >20 weeks		
	No. of cases with any other complications		
8	Total no. of cases referred in		
9	Total no. of cases referred out		

2) Labour room register

S. No.	Admission No.	Whether referred from other facility, indicate name of the facility	Date and time of admission	Identification details					Birth Complication (Y/N)	Present obstetric history		
				MCTS No.	Name	Age	W/o or D/O	Address		GPLA	Any identified Complication during ANC, specify	Complication during previous pregnancy, specify
1	2	3	4	5	6	7	8	9	10	11	12	13

Monthly abstract - Labour Room register

1	Total no. of deliveries			
1a		Normal		
1b		Assisted		
1c		C- Section		
2	Total no. of Abortions			
3	No. of Still Births			
4	No. of live births			
5	No. of deliveries less than 37 weeks			
6	No. of Low Birth Weight Babies (<2500 gms.)			
7	No. of babies resuscitated			
8	No. of babies born with congenital anomalies			
9	No. of PPIUCD insertions			
10	Total no. of complicated cases identified during labour	Identified	Managed	Deaths
	Maternal			
	Hemorrhage			
	Infection			
	Eclampsia			
	Others			
	Neonatal			
	Hypothermia			
	Sepsis			
	Asphyxia			
	Any other complications			
11	Referral	In referral	Out referral	
	No. of Referrals			

3) PNC Register...continued

Newborn															
Stool passed	Diarrhea	Vomiting	Convulsions	Activity (good /lethargic)	Sucking (good/poor)	Breathing (fast/difficult)	Chest in drawing Present /absent	Temperature	Jaundice	Condition of umbilical stump	Skin pustules Present/absent	Any other complications	Treatment provided for complication	Referred/admitted, reason and place	If discharged, next date for visit
26	27	28	29	30	31	32	33	34	35	36					

Monthly abstract - PNC register

1	Total Received PNC care		
2	No stayed for 48 hrs		
3	No. complication managed	Identified	Managed
	Mothers		
	No. of anaemia cases		
	No. of severe anaemia cases		
	No. of hypertensive cases		
	No. of cases recorded with bleeding p.v./ haemorrhage		
	No. of cases recorded with infections at the episiotomy site/suture site		
	No. of cases with any other complications		
	Neonates		
	Fever		
	Jaundice		
	Diarrhoea		
	Pneumonia		
	Others		
4	Referral cases	In referral	Out referral
	Mothers		
	Neonates		
5	No. of PPIUCD insertions		

4) Immunization Registers to be maintained separately, as per RI programme.

National Immunisation Schedule for Pregnant Women, Infants and Children

Vaccine	When to give	Dose	Route and site
For Pregnant Women			
TT-1	Early in pregnancy at first contact	0.5 ml	Intramuscular in upper arm
TT-2	4 weeks after TT-1*	0.5 ml	
TT-booster	If pregnancy occurs within three years of last TT vaccinations*	0.5 ml	
For Infants			
BCG	At birth (for institutional deliveries) or along with DPT-1	0.1 ml (0.05 ml for infant up to 1 month)	Intradermal in left upper arm
Hepatitis B 0 [△]	At birth for institutional delivery, preferably within 24 hours of delivery	0.5 ml	Intramuscular in outer mid-thigh (antero-lateral side of mid-thigh)
OPV - 0	At birth, if delivery is in institution	2 drops	Oral
OPV 1, 2 and 3	At 6 weeks, 10 weeks and 14 weeks	2 drops	Oral
DPT 1, 2 and 3	At 6 weeks, 10 weeks and 14 weeks	0.5 ml	Intramuscular in outer mid-thigh (antero-lateral side of mid-thigh)
Hepatitis B1, 2 and 3	At 6 weeks, 10 weeks and 14 weeks	0.5 ml	
Measles	9-12 months	0.5 ml	Subcutaneous in right upper arm
Vitamin A (1st dose)	At 9 months, with measles	1 ml (1 lakh IU)	Oral
For Children			
DPT booster	1st booster at 16-24 months	0.5 ml	Intramuscular in outer mid-thigh (antero-lateral side of mid-thigh)
	2nd booster at 5 years of age	0.5 ml	Intramuscular in upper arm
OPV booster	16-24 months	2 drops	Oral
JE [△]	16-24 months	0.5 ml	Intramuscular in outer mid-thigh (antero-lateral side of mid-thigh)
MR	16-24 months	0.5 ml	
Vitamin A (2nd to 9th dose)	2nd dose at 16 months, with DPT/OPV booster. 3rd to 9th doses are given at an interval of 6 months till 5 years of age.	2 ml (2 lakh IU)	Oral
TT	10 years and 16 years	0.5 ml	Intramuscular in upper arm.

* TT-2 or booster dose is to be given before 36 weeks of pregnancy.

A fully immunised infant is one who has received BCG, three doses of DPT, three doses of OPV, three doses of Hepatitis (wherever implemented), and measles before one year of age.

△ JE and Hepatitis B in select states/UTs/districts/cities

Note: The Universal Immunisation Programme is dynamic and hence, the immunisation schedule needs to be updated from time to time.

5) Receiving facility register

Register for cases referred from other health facility (to be maintained at receiving facility)													
Name of the Receiving Health Facility :													
S. No.	Name of patient	Address and contact number of patient	Date and time of arrival	If referred case is a pregnant women/ child, ID No. (MCTS*)	Name of the health facility referred from	Name & designation of referring Health Official/ Functionary	Whether the patient came with a referral slip	Whether advanced information received from referring facility	Reason for referral	Condition of patient at time of receiving	Name & designation of Health Official attending the case on receiving /arrival	Mode of referred transport – (Govt. ambulance /PPP/ vehicle arranged by patient)	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	14

Annexure 5 | Referral slip

Referral slip

Name of the referring facility: Address: Telephone:

Name of the patient _____ Age: _____ Yrs: _____

Father's/Husband's Name; _____

Address: _____ Contact no. _____

Referred on ___/___/___ (d/m/yr) at _____ (time) to _____
_____ (Name of the facility) for management.

Provisional Diagnosis:

--

Admitted in the referring facility on ___/___/___ (d/m/yr) at _____ (time) with chief complaints of:

- _____
- _____
- _____

Summary of management (Procedures, Critical interventions, drugs given for management):

- Blood group:
- Hb:
- Urine R/E:
- Others

Condition at time of referral:

Consciousness: _____ Temp: _____ Pulse: _____ BP: _____

Others (specify): _____

Information on referral provided to the institution referred to: Yes/No

If yes, then name of the person spoken to: _____

Mode of transport for referral: Govt./PPP/Vehicle arranged by patient:

Signature of Referring physician/Health functionary
(Name/Designation/Stamp)

Annexure 6 | Sample duty roster: MO, nursing staff and support staff

Duty roster							
Name of facility _____				Roster duration _____			
Date/Day	Staff on duty	8 am–2 pm/ morning		2 pm–8 pm/ afternoon		8 pm–8 am/night	
		Labour Room	Wards	Labour Room	Wards	Labour Room	Wards
Monday	MO SN Support staff						
Tuesday	MO SN Support staff						
Wednesday	MO SN Support staff						
Thursday	MO SN Support staff						
Friday	MO SN Support staff						
Saturday	MO SN Support staff						
Sunday	MO SN Support staff						

Note:

- Duties will be changed only with prior permission
- Being absent from the duty without sanctioned leave shall be considered as absent
- Duties can be swapped mutually only with prior intimation to the M/wing in-charge
- Implementation of duty roster is the responsibility of Maternity wing in-charge

Signed

CS/BMO
Maternity wing in-charge

Annexure 7 | Sample of handing/taking over register

Date:						
Shifts	7.30 am–2pm/morning		1.30 pm–8 pm/afternoon		7.30 pm–8 pm/night	
Supplies	Available	Functional	Available	Functional	Available	Functional
BP apparatus						
Stethoscope						
Foetoscope						
Thermometer						
Torch						
Bag and mask						
Baby weighing scale						
6 trays						
Warmer						
Suction apparatus						
Laryngoscope						
Oxygen cylinder						
Referrals						
Remarks						
Checked & found functional. Information about complicated cases and women in labour						
Sign:						

Note:

- i. During change of shifts, the LR staff should properly hand-over the details of patients admitted in maternity wing. Status of drugs, consumable and instrument should also be included in the handing over/taking over process.
- ii. Leaving staff should have 30 minutes handover with the new staff.
- iii. In-charge should also be responsible to maintain a “handing over/taking over” register in the Labour room. A sample is shown here.
- iv. Replenish the drugs and consumables during each shift change.

Annexure 8 | Skill stations

I. Managing complication

1. ABC approach
2. Identification & management of shock (IV line & Blood transfusion, catheterization)

II. Antenatal skill station

1. Pregnancy test kit
2. Lab – Hb, urine, Malaria estimation
3. Blood Pressure & Weight
4. Calculation of EDD
5. Abdominal Examination & FHS

III. Intra-natal care

1. Preparation of labour room (Delivery kit / patient)
2. PV examination includes cervical dilatation
3. Normal Delivery
4. AMTSL & Checking placenta
5. Plotting & Interpreting partograph
6. Providing MgSO₄ for eclampsia management
7. Episiotomy repair
8. PPH management (Abdominal aortic compression, bimanual compression, manual removal of placenta, managing atonic uterus with drugs, uterine tamponade)
9. Complicated delivery (Twin , breech, shoulder dystosia)

IV. Family planning station: MEC wheel

1. IUCD (post-partum & Interval IUD)

V. Documentation

1. MCP card
2. Labour, referral-in and referral-out register
3. Referral slip
4. Discharge slip
5. Blood transfusion form
6. Handing & taking over

VI. Counseling station

1. ANC (warning signs, nutrition, breast care, follow up)
2. Post-partum counseling (breast feeding, mother & baby care, perineal care, nutrition & family planning)
3. Family planning counseling
4. Immunization
5. Counseling through GALPAC and IEP

VII. Newborn Care

1. ENBC
2. NB resuscitation till bag and mask
3. NB resuscitation advanced, ie, chest compression, umbilical cannulation, medication and intubation
4. Temp, weight, length measurement, use of growth chart
5. Use of radiant warmer
6. Insertion of NG tube
7. Use of oxygen cylinder
8. Phototherapy and assessment of Jaundice
9. IV line for the newborn
10. Infusion pump
11. Pulse oximeter
12. Nebuliser

VIII. Infection prevention (IMEP)

1. Hand Washing
2. PPE- gloves
3. 0.5% Chlorine solution
4. Processing of instruments; Decontamination, cleaning , HLD, Sterilization
5. Autoclaving
6. Bio medical waste segregation
7. Cleaning of walls, Floor, trolley, delivery table, blood soiled linen, OT/ LR sterilization

Annexure 9 | Consumables needed for each delivery (Calculate for 100 delivery/month)*

Consumable	Approximate quantity/delivery/day	Approximate quantity for 100 deliveries
Pair of gloves	No. of deliveries x 4	400
Disposable syringe with needle (2 ml)	equal (=) to no. of deliveries	100
Disposable syringe with needle (5 ml)	equal (=) to no. of deliveries	100
Draw sheets	No of deliveries x 2	200
Plastic apron (Disposable)	equal (=) to no. of deliveries	100
Cord clamp	equal (=) to no. of deliveries	100
Disposable mucus extractor	equal (=) to no. of deliveries	100
Baby wrapping sheets	No. of deliveries x 2	200
Disposable nasogastric tube	equal (=) to no. of deliveries	100
Sanitary pads	No. deliveries x 6	600 (100 packs containing 6 each)
Sterile urinary catheter (Foley's)	No. of deliveries/10	10
Chromic catgut "0"	No. of deliveries/2	50
Disposable syringe with needle (10 ml) (+ 20 ml at DH)	No. of deliveries/10	10
Povidone iodine solution (500 ml)	No. of deliveries/10	10
Cetrimide solution (500 ml)	No. of deliveries/10	10
Thread for suture	No. of deliveries/10	10
Cotton rolls (big) (for swabs)	No. of deliveries/8	12
Gauze than 10 meter (gauze piece)	No. of deliveries / 10	10
Identification tag	equal (=) to no. of deliveries	100
Gown for laboring woman	equal (=) to no. of deliveries	100

*While calculating please take into account- 10% wastage factor

Annexure 10 | 100 bedded MCH wing for providing comprehensive RMNCH Services

100 bedded MCH wing at DH/DWHs, while 50 bedded at sub-district hospitals and 30 bedded at CHC levels. For the 100 bedded MCH Wing at existing DH/DWH, requirements will be : The MCH Centre will be created within the premises of the existing District Hospital/District women's Hospital/SDH

- **OPD clinic for MCH wing –**

Consultancy rooms –MH, CH, FP, Comprehensive counseling rooms including HIV counseling with space for examinations and privacy, IEC material/TV

ARSH clinic

Sufficient waiting and sitting area

Computerized registration area with facility for direct registration in LR also as per need

- **Immunization room**
- **Labor rooms** with facility for direct entry as well as Internal entry from Ward
- **Pre-delivery waiting beds – 5 bedded**

Normal (Aseptic) LR – 8 table

Septic LR – 2 table

Post delivery Observation Room – 5–10 bedded

- **2 ANC Wards – 30 bedded**
Beds, lockers, side tables, space for attendant, stool with attendant's cot
- **Pre-delivery waiting beds – 5 bedded**
- **1 Pediatric Ward –15 bedded**
- **Eclampsia room/High dependency unit-2 bedded**
- **Obstetric ICU – 6 bedded**
- **Private Ward – 10 beds**
- **SNCU – In-born, out-born and step down – 12 bedded**
- **New Born Care Corner in Labour Room and OTs**
- **Blood Storage Unit – 1 Small Room – linkage with facility for emergency cross-matching (Blood Bank in main Hospital) –Blood Bank Refrigerator**
- **USG Room**
- **Lab Facility with sample collection area**
- **1 OT Complex including scrubbing, changing, sterilization, pre and post op room**
 - **Major OT – 2 Tables**
 - **Minor OT – 2 Tables**

- **1 Surgical post operative room – 10 bedded**
- **Post-partum ward/room – 5 bedded (for family planning operations)**
- 2 Doctors Duty Room – For night duty – 2 beds each for male and female doctors
- Nursing Stations
- **Academic Section: Trainings Halls /Seminar Room & Lecture Hall** with all latest AV Aids – 30 seater
- **Library cum seminar room**
- **Skill Station/Lab of about 1,000 sq. Feet-30 tables** (of 3x2 feet each)
- Toilets in wards, OPD, LR, OT, waiting area for p.w. and attendants
- Stores
- Drinking water coolers, water supply
- Waiting area for attendants, TV
- Pantry
- **Can be ground floor +1 or G + 2;** Space for trolley movement/ramps /lifts staircases
- **Ambulance drivers room**
- **Help Desk/Sahiya Help Desk (in OPD wing /or near entrance)**
- **ASHA griha/room with 6 beds** (Dormitory with Bathroom)
- **Chamber for 4 Sr. Consultants**–Single person
- **Staff room rne** (For other staff–6-8 seating capacity)
- **Record room and office** (Two)

Air Cooling/Air-conditioned rooms/central air conditioning (OT, Post-operative rooms, LR, SNCU etc)

Oxygen supply in the OTs/Labour Rooms and ICUs/Oxygen concentrator in LR and OTs

- Flow of staff, patients and attendants to be channelized to minimize contamination

Sufficient lighting designs for electricity conservation

Provision of uninterrupted power supply/Generator Room with supply to all essential areas

Public Address System

Disabled friendly, Fire-fighting aids, emergency evacuation plans

- **Equipment** for above designated areas

Annexure 11 | Bed head ticket (Maternity ward)

Name: Admission Number:
Husband's/ Guardian's name: Mother ID Number (MCTS):
Age: JSY Registration Number:
Address:
Phone/ Mobile number:
Date of admission:
Date of discharge:
Reason for admission:
Date and time of delivery/any other obstetric procedure:
Type of Delivery: Normal/Assisted/LSCS:
Outcome of delivery (live birth/still birth/abortion):
Sex of baby: (M/F)
Weight of baby: in gms./Kgs.)
Birth-day Dose:
OPV: BCG:
Hepatitis B: Vitamin K:
Date on which birth-day dose administered:
PPIUCD inserted on:
Name of unit In charge:
Name of assisting doctor:
Name of ASHA:
If referred out: Referral Note, indicating reason and place of referral:

Admission Notes

Whether came by referral, if yes please specify the facility and indication of referral:

Complaints at the time of admission:

LMP and EDD:

Obstetric complication in previous pregnancy: If yes, then Please tick (✓)

- APH
- Eclampsia
- PIH
- Anaemia
- Obstructed labour
- PPH
- Abortion/still births/congenital anomaly
- Any other, please specify

Past History: If yes, then Please tick (✓)

- TB
- Hypertension
- Heart disease
- Diabetes
- Asthma
- Any other, please specify

History of:

- Infertility/C- Section/Twins/Breach/Blood transfusion
- Please also specify other significant history:

Family history (if significant):.....

Allergies/adverse reactions, if any:.....

Treatment prescribed/taken before admission:.....

Report of Investigations done before admission:.....

- Hb.....
- Urine Albumin.....
- Urine Sugar.....
- Blood Sugar.....
- Any other (Pregnancy test/Blood Group & Rh Typing/HIV/Syphilis/HBsAg etc).....

Vital Parameters/General Examination at the time of admission:

- Temperature.....
- BP
- Pulse
- Respiration.....
- Weight.....
- Pallor.....
- Jaundice.....
- Pedal Oedema

Systemic Examination:

- Heart.....
- Lungs.....
- Breast.....

Abdominal Examination:

- Fundal height (gestational period):.....
- Lie/presentation:.....
- Foetal movement: Normal/Increased/Decreased/Absent
- Foetal Heart Rate/minute.....

P/V Examination:.....

If in labour, date and time of onset of labour

Provisional diagnosis:.....

Investigation advised:.....

Treatment advised:.....

Remarks:

Delivery Note

- Outcome of delivery (FT Live birth/ /Still birth/ Abortion)
- Date and time of delivery/Abortion
- Gestation age in weeks at the time of delivery/abortion
- Delivery conducted by (name and designation)/ abortion
- Type of delivery : normal / assisted (specify)/ LSCS/others
- Complications if any during delivery
- Any Medical/surgical Interventions (e.g Injectable drugs, ARM etc) given
- Indication for the intervention
- Date and time of transfer to post natal ward
- Condition at transfer to post natal ward.
- If referred, reason and place for referral (both for mother and baby)
- Incase of death pl specify Maternal or Neonatal (other than stillbirth),
- Cause of death and time
- Remarks, if any

Baby note:

- Did the baby cry immediately after birth? (Y/N)
- Essential Newborn Care (ENBC) provided: (Y/N)
- Did the baby require resuscitation? (Y/N)
- Sex (M/F)
- Weight (in grams)
- Time of initiation of Breastfeeding
- Birth doses:
 - BCG (Y/N)
 - OPV (Y/N)
 - Vitamin K (Y/N)
 - Hepatitis B (Y/N)
- Any Congenital Anomaly, please specify
- Any other complication, please specify

Treatment Sheet: *to be maintained by the nurses*

Day 1 and Date:

Medication Name	Dosage	Instructions (Frequency/Route)	Time of administration	Signature

Day 2 and Date:

Medication Name	Dosage	Instructions (Frequency/Route)	Time of administration	Signature

Day 3 and Date:

Medication Name	Dosage	Instructions (Frequency/Route)	Time of administration	Signature

Operation/Obstetric Procedure Note

Indication for the procedure

Whether Patient/Guardian explained about the procedure and probable consequences:

Consent of patient/ Guardian: (Y/N)

Elective / emergency

Type of anesthesia

Time at. Procedure started ----- b.. procedure ended-----

Operation Note:

Condition at transfer to ward

Treatment advised:

Signature of doctor conducted the procedure

Note on Pre Anesthetic Check up

A large rectangular box containing 25 horizontal dotted lines for writing notes.

The Simplified Partograph

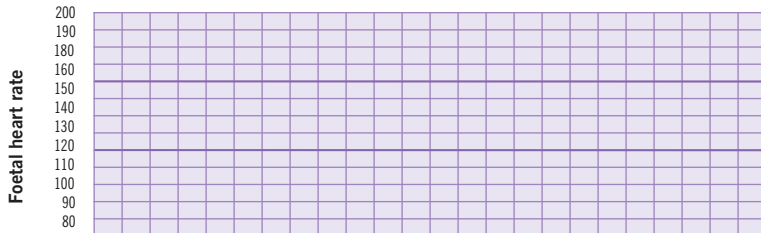
Identification Data

Name	W/O	Age	Parity	Reg. No.
------	-----	-----	--------	----------

Date & Time of admission:

Date & Time of ROM:

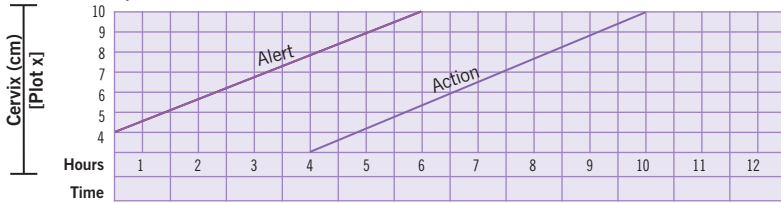
A) Foetal Condition



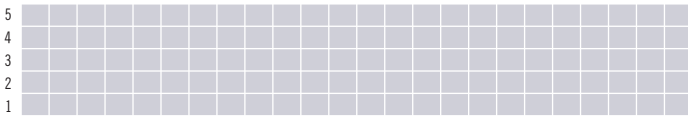
Amniotic fluid



B) Labour



Contractions per 10 mins

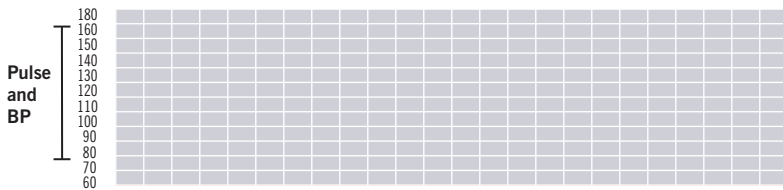


C) Interventions

Drugs and IV fluids given



D) Maternal Condition



Temp °C



Notes of Post-Partum Care of the mother

Note: Please Tick, where ever applicable or put note

	Day 1		Day 2	
	Morning	Evening	Morning	Evening
Any complaints				
Pulse Rate				
Blood Pressure				
Temperature				
Pallor				
Breasts-Soft/Engorged				
Nipples-Cracked/Normal				
Uterus tenderness- Present/absent				
Bleeding P/V- Excessive/normal				
Lochia-Healthy/foul smelling				
Episiotomy/Tear- Healthy/Infected				
Family Planning counseling				
Complications, if any, please specify Referral				
Treatment given				
Signature of attending nurse				
Signature of treating doctor				

Care of baby*

	Day 1		Day 2	
	Morning	Evening	Morning	Evening
Urine passed*				
Stool passed*				
Diarrhea*				
Vomiting*				
Convulsions*				
Activity (good/lethargic/no response on stimulation)				
Sucking (good/poor)				
Breathing (fast/difficult)				
Chest indrawing (Present/absent)				
Temperature				
Jaundice*				
Condition of umbilical stump				
Skin pustules *				
Any - complications				
Signature of attending nurse				

*- Please Tick

Discharge Slip

Name of the SC/PHC/CHC/FRU/DH:

OPD/Emer. Reg. No.: _____

Name of the Mother: _____

Age: _____ yrs

Address: _____

Admission: Date ___/___/___ Time: _____

Delivery: Date ___/___/___ Time: _____

Discharge: Date ___/___/___ Time: _____

Mode of Delivery:

Normal Assisted LSCS

Indication for:

Assisted / LSCSI: _____

Delivery Outcome:

FTND Preterm
 Stillbirth
 Abortion Any other

Number of Births:

Single Multiple

Details of the baby:

Sex: Male Female Weight: _____ Kgs _____ gms

BF initiation within 1 hr of birth: Yes No

Pre-term – (in weeks)-

Still birth- Y/N

Any history of complications:

Mother Complications	Y	N	Baby Complications	Y	N
PPH			Apnea/breathing difficulties		
Eclampsia			Cyanosis		
Heart disease			Hypothermia		
Stroke			Hyperthermia		
Epilepsy/seizure			Failure to cry		
Anaemia			Lethargy		
Any other			Any other		

Investigation done:

Investigations done	Results	
	Mother	Baby
Hb		
Blood group		
Urine analysis		
Blood tests for HIV		
Blood sugar		
Serum Bilirubin		
Any other		

Ultrasound- (If conducted, reason & finding)

Referral for mother and or baby:

Mother: Yes No

Baby: Yes No

Referral facility: _____ PHC/CHC/DH/Pvt Hosp

Reasons for referral: _____

At discharge time condition of:

Mother: Stable Not stable

Baby: Stable Not stable

Postnatal Care Provided

Birth-day Dose: OPV BCG

HEP B VIT K

Family Planning counseling provided: Yes No

PPIUCD Insertion done on-----

Additional advice given at time of discharge:

Next follow-up: Date ____/____/____ Place: _____

Discharging Health Care Provider:

Name: _____

Signature: _____

Designation: _____

Phone number: _____

Date ____/____/____ Time: _____

Annexure 12 | Safe Birthing Checklist:

Safe Birthing Checklist



Check 1	On Admission
Instructions: 1. Put the tick <input checked="" type="checkbox"/> in appropriate box 2. Follow the information given on right side for reference	
Patient Name Registration No.	
Does Mother need referral? <input type="checkbox"/> No <input type="checkbox"/> Yes, organized	Refer to FRU if any of following danger signs are present and state reason on transfer note: <ul style="list-style-type: none"> • Vaginal bleeding • High fever • Severe headache and blurred vision • Convulsions • Severe abdominal pain • History of heart disease or other major illnesses • Difficulty in breathing
Partograph started? <input type="checkbox"/> No, will start at ≥ 4 cm <input type="checkbox"/> Yes	Start when cervix ≥ 4 cm <ul style="list-style-type: none"> • Every 30 min plot contractions, FHS, and maternal pulse • Every 4 hours: plot temperature, blood pressure, and cervical dilation in cm (cervix dilates ≥ 1 cm/hr)
Does Mother need Antibiotics? <input type="checkbox"/> No <input type="checkbox"/> Yes, given	Give antibiotics to Mother if: <ul style="list-style-type: none"> • Mother's temperature $> 38^{\circ}\text{C}$ ($> 100.4^{\circ}\text{F}$) • Foul-smelling Vaginal discharge • Rupture of membranes > 12 hrs without labor or > 18 hrs with labour • Labor > 24 hrs on obstructed labor • Rupture of membranes < 37 wks gestation
Magnesium sulfate? <input type="checkbox"/> No <input type="checkbox"/> Yes, given	Give first dose and then refer immediately to FRU if Mother has: <ul style="list-style-type: none"> • If diastolic BP is ≥ 110 mm Hg and 3 + proteinuria • Convulsions
What is HIV status of Mother? <input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Status unknown, HIV test advised	If Mother is HIV positive: <ul style="list-style-type: none"> • Give Nevirapine • If not available, refer the patient immediately after birth
Are soap, water and gloves available? <input type="checkbox"/> No <input type="checkbox"/> Yes, I will wash hands and wear gloves for each vaginal exam	
<input type="checkbox"/> Presence of birth companion at birth encouraged.	
<input type="checkbox"/> Confirmed that Mother or companion will call for help during labour if needed	Call for help if any of <ul style="list-style-type: none"> • Bleeding • Severe abdominal pain • Difficulty in breathing • Severe headache and blurred vision • Urge to push • Cannot empty bladder frequently

Completed by Date.....

Check 2

Just Before Pushing (or Before Caesarean)

Does Mother need:

Antibiotics?

- No
- Yes, given

Give antibiotics to Mother if any of:

- Mother's temperature > 38°C (>100.4°F)
- Foul-smelling vaginal discharge
- Rupture of membranes >18 hrs with labor
- Labor > 24 hrs on obstructed labor now
- Cesarean section

Magnesium sulfate?

- No
- Yes, given

Give first dose and then refer immediately to FRU if Mother has:

- If diastolic BP is ≥ 110 mm Hg and 3 + proteinuria
- Convulsions

Confirm essential supplies are at bedside:

For Mother

- Gloves
- Soap and clean water
- Oxytocin 10 units in syringe
- Pads for Mother

Prepare to care for Mother immediately after birth

1. Confirm single baby only (not multiple birth)
2. Give Oxytocin IM within 1 minute
3. Massage uterus other placenta is delivered
4. Confirm uterus is contracted

For Baby

- Clean towel
- Sterile scissors/blade to cut cord
- Cord ligature
- Mucus extractor
- Bag-and-mask

Prepare to care for Baby immediately after birth

1. Keep the baby dry and warm, give IM or I/V
2. If not breathing: stimulate and clear airway
3. If still not breathing:
 - a. Clamp and cut the cord
 - b. Ventilate with bag-and-mask
 - c. Shout for help (Pediatrician/LMO/DDSP trained service provide).

- Assistant identified and ready to help at birth if needed.

Completed byDate.....

Check 3

Soon After birth (within 1 hour)

Is Mother bleeding abnormally?

- No
- yes, shout for help

If bleeding > 500ml, or 1 pad soaked in <5 min:

- ◆ Massage uterus
- ◆ Start I/V fluids
- ◆ Treat cause
- ◆ If placenta delivered or completely retained: give IM or I/U Oxytocin, stabilize, and refer to FRU
- ◆ If placenta is incomplete: remove if any visible pieces, and refer immediately to FRU

Does Mother need:

Antibiotics?

- No
- Yes, given

Give antibiotics to Mother if manual removal of placenta performed, or if Mother's temperature ≥ 38°C (>100.4° F) and any of:

- ◆ Chills
- ◆ Foul-smelling Vaginal discharge

Magnesium sulfate?

- No
- Yes, given

Give first dose and then refer immediately to FRU, if Mother has:

- If diastolic BP is ≥ 110 mm Hg and 3 + proteinuria
- Convulsions

Does Baby need:

Antibiotics?

- No
- Yes, given

Give Baby antibiotics if antibiotics were given to Mother, or if Baby has any of:

- Breathing too fast (>60/min) or too slow (<30/min)
- Chest: in-drawing, grunting, or convulsions
- Looks sick (lethargic or irritable)
- Too cold (Baby's temp <35°C and not rising after warming) or too hot (Baby's temp >35°C)

Referral?

- No
- Yes, organized

Refer Baby to FRU if:

- Any of the above (antibiotics indications)
- Baby looks yellow, pale or bluish

Special Care and monitoring?

- No
- Yes, organized

Arrange special care/monitoring for Baby if any of:

- Preterm
- Birth weight <2500 gms
- Needs antibiotics
- Required resuscitation

Nevirapine?

- No
- Yes, given

If mother is HIV + . follow local guidelines for baby (prophylaxis to be started within 12 hours after birth)

- Started breastfeeding and skin-to-skin contact (if Mother and Baby are well). Importance of colostrum feeding explained.**
- Danger signs explained and confirmed that Mother/companion will call for help if danger signs appear. (Refer to "Danger Signs" given under check 4).**

Completed byDate.....

Check 4

Before Discharge

Is Mothers bleeding controlled ?

- No: Treat, observe and refer to FRU, if needed
- Yes:

Does Mother need antibiotics?

- No
- Yes: Give antibiotics and delay discharge

Give antibiotics to Mother if her temperature $\geq 38^{\circ}\text{C}$ or $>100.4^{\circ}\text{F}$ and any of:

- ◆ Chills
- ◆ Foul-smelling vaginal discharge

Does Baby need antibiotics?

- No
- Yes: Give antibiotics, delay discharge, and refer to FRU

Give Baby antibiotics if baby has any of:

- ◆ Breathing too fast ($>50/\text{min}$) or too slow ($<3\text{cm}/\text{min}$)
- ◆ Chest: in-drawing, grunting, or convulsions
- ◆ No movement on stimulation
- ◆ Too cold (Baby's temp $<35^{\circ}\text{C}$) and not rising after warming) or too hot (Baby's temp $>35^{\circ}\text{C}$)
- ◆ Stopped breastfeeding well
- ◆ Umbilicus redness extending to skin or pus discharge

Is Baby feeding well?

- No: Help in baby feeding, delay discharge and refer to FRU if needed
- Yes, teach Mother Exclusive breastfeeding

Home transport and follow-up for Mother and Baby arranged.

Confirmed that BCG and Polio first dose given to Baby.

Family planning options discussed and offered to mother:

- | | |
|------------------------|----------------------|
| ◆ LAM | ◆ OCP |
| ◆ IUCD | ◆ Condoms |
| ◆ Female Sterilization | ◆ Male Sterilization |

Danger signs explained and confirmed that Mother/Companion will seek help, if danger signs appear after discharge.

Danger Signs

Mother has any of:

- ◆ Bleeding
- ◆ Severe abdominal Pain
- ◆ Severe headache or blurred vision
- ◆ Breathing difficulty
- ◆ Fever or chills
- ◆ Difficulty in emptying bladder

Baby has any of:

- ◆ Fast/diffculty breathing
- ◆ Fever
- ◆ Unusually Cold
- ◆ Stops feeding well
- ◆ Less activity than normal
- ◆ Whole body becomes yellow

Completed byDate.....



Maternal Health Division

Ministry of Health & Family Welfare

Government of India

Nirman Bhawan

New Delhi - 110108

Telefax: 011-23062930

Website: www.mohfw.nic.in