The background of the cover features a colorful illustration of a rural setting. On the left is a yellow thatched-roof hut. In the center, a woman in a yellow sari with a red blouse sits on the ground, holding a baby wrapped in a pink blanket. A man in a blue tank top and black shorts kneels beside her, looking at the baby. To the right, a large tree with green and yellow foliage stands against a light blue sky. The ground is green with some grey rocks and a large green plant.

Operational Guidelines on  
**Maternal and  
Newborn Health**



सत्यमेव जयते





Operational Guidelines on  
**Maternal and Newborn Health**



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GOVERNMENT OF INDIA  
MINISTRY OF HEALTH & FAMILY WELFARE  
NIRMAN BHAVAN, NEW DELHI - 110011

## MESSAGE



The National Rural Health Mission has enabled several innovations to promote people's access to services. One of the most impressive of these is the Janani Suraksha Yojana, which has enabled unprecedented increases in institutional delivery across the country.

However the term "institutional delivery" should not be reduced to mean any delivery taking place in a building. It must mean the availability of a health team with necessary skills, and equipped with the necessary drugs and equipment who are able to manage a certain level of complications as and when they arise, and take responsibility for reaching them to where it can be managed. Unless pregnant women with complications are managed adequately, institutional delivery by itself would fail to lower maternal mortality ratios. All this is true for the prevention of neonatal mortality also.

These Operational Guidelines specify the package of services each level of facility would provide and the quality parameters for these. Further proposed is a supervisory structure and an external system of assessment that would enable the planner to ensure that the services guaranteed are actually being delivered. The institutional linkages and community support needed is also described. This document would help the district planner to prepare a plan that would guarantee every woman a safe delivery. But further it should become a tool for financing the program such that every poor woman gets the support needed to meet her expenses and that every facility and every provider is incentivized in proportion to the work load they are managing.

The Ministry is launching these operational guidelines to enable states and districts to develop outcome based plans to reduce maternal and newborn mortality. As a beginning these guidelines would be used to plan, monitor and support the achievement of NRHM goals in the poorest performing 125 districts of the country. But gradually such planning, based upon well defined service guarantees, clear quality norms, specific local contexts, and differential financing should inform all district health planning in the country.

(K Sujatha Rao)



*National Rural Health Mission*



**गुलाम नबी आज़ाद**  
**GHULAM NABI AZAD**



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

## MESSAGE



The National Rural Health Mission (NRHM), has brought a renewed emphasis on strengthening our public health systems and achieving the goal of health for all. Substantial investments have been made in strengthening infrastructure, building capacity of service providers, and ensuring uninterrupted flow of drugs and supplies. These investments are beginning to yield results. Across the country, the Janani Suraksha Yojana has seen unprecedented number of women accessing institutions in the public sector for delivery services.

And yet, we cannot afford to rest. Much remains to be done, if we are to meet our national goals of reducing maternal mortality to 100/100,000 and infant mortality to 30/1000. Despite the encouraging improvements and expansion in infrastructure and human resources, issues of inequity in access and poor quality in health care persist. The challenge before us now is to ensure that all women and newborns, no matter where they live, can demand and obtain the service that the NHRM promises.

I welcome these operational guidelines as another major effort to address the problem of maternal and newborn mortality. These operational guidelines should become the basis for ensuring that every single pregnant woman in the nation has a safe delivery and every new born has the best possible chance for survival. The National Rural Health Mission is committed to providing the funds needed to reach these standards nationwide. I call upon programme managers to use these guidelines to plan access to these basic services for even the poorest household and the most inaccessible areas.

New Delhi  
7.4.2010

(Ghulam Nabi Azad)



**P.K. PRADHAN, IAS**

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Government of India  
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## MESSAGE



NRHM initiatives over the last five years at community, institution and management levels have enabled high levels of access to public sector facilities. The Janani Surksha Yojana has played a large part in empowering and enabling pregnant women to access facilities for safe delivery. Despite these gains, issues of quality access and equity are areas of concern that need to be addressed.

The need for care does not cease after childbirth and the emphasis in planning should be on a continuum of care approach that enables care in pregnancy, Delivery, for the newborn and post-partum care through a well-planned and effectively executed strategy.

The guidelines are designed so as to translate technical strategies into planning processes. The guidelines span strategic approaches and a service delivery framework based on Indian Public Health Standards, human resource development, quality and certification and community linkages including the role of the ASHA. These guidelines are part of a larger set of manuals that the Government of India is developing. These would include the training manuals, the supervisors' manuals, the standard treatment protocols and the quality manual.

I hope that the States and districts are able to effectively use these guidelines in developing specific plans to address the issue of maternal and newborn mortality.

(P.K. Pradhan)





# Abbreviations

ANC	: Antenatal Care
ANM	: Auxiliary Nurse Midwife
ASHA	: Accredited Social Health Activist
AWW	: Anganwadi Worker
BCC	: Behaviour Change Communication
BEmONC	: Basic Emergency Obstetric and Newborn Care
CEmONC	: Comprehensive Emergency Obstetric and Newborn Care
CHC	: Community Health Centre
EmOC	: Emergency Obstetric Care
FRU	: First Referral Unit
HBNC	: Home Based Newborn Care
HIV	: Human Immunodeficiency Virus
IMNCI	: Integrated Management of Neonatal and Childhood Illnesses
IMR	: Infant Mortality Rate
IUD	: Intrauterine Device
LBW	: Low Birth Weight
LSAS	: Life Saving Anaesthesia Skills
LHV	: Lady Health Visitor
MO	: Medical Officer
MoHFW	: Ministry of Health and Family Welfare
MTP	: Medical Termination of Pregnancy
MMR	: Maternal Mortality Ratio
MVA	: Manual Vacuum Aspiration
NGO	: Non-Governmental Organisation
NHSRC	: National Health Systems Resource Centre
NIHFW	: National Institute of Health and Family Welfare
NRHM	: National Rural Health Mission
NSSK	: Navjaat Shishu Suraksha Karyakram
NSV	: Non-Scalpel Vasectomy
OT	: Operation Theatre
PHC	: Primary Health Centre
PPH	: Post-Partum Haemorrhage
PRI	: Panchayati Raj Institution
RCH	: Reproductive and Child Health
SBA	: Skilled Birth Attendant
SC	: Scheduled Caste
SHG	: Self-Help Group
SHSRC	: State Health Systems Resource Centre
SIHFW	: State Institute of Health and Family Welfare
SNCU	: Special Newborn Care Unit
ST	: Scheduled Tribe



# Contents

CHAPTER -1: Background, Rationale and Principles of the Guidelines	11
CHAPTER -2: Strategies for Ensuring Improvements in Maternal and Newborn Health	15
CHAPTER -3: The Service Delivery Framework	17
CHAPTER -4: Making Choices for Safe Delivery	25
CHAPTER -5: Supervision and Monitoring	27
CHAPTER -6: Quality and its Certification	29
CHAPTER -7: Human Resource Development	30
CHAPTER -8: Institutional Support Systems and Linkages	32
CHAPTER -9: Private Sector Partners	34
CHAPTER -10: Community Support Systems and Linkages	35
CHAPTER -11: Janani Suraksha Yojana	39
References	42
ANNEXURES	43
Annexe 1-A: SBA at Sub-Centre: Equipment, Supplies and Drugs	43
Annexe 1-B: Home Delivery with Skilled Birth Attendant	44
Annexe 1-C: Drugs and Equipment for Institutional Delivery at the 24x7 PHC	45
Annexe 1-D: Equipment and Drugs for Institutional Delivery at FRU	46
Annexe 1-E: Equipment, Drugs and Supplies for the SNCU at the District Hospital	49
Annexe 2-A: Core Competencies of SBA	50
Annexe 2-B: Core Competencies of SBA at 24x7 PHCs	51
Annexe 2-C: Core Competencies of SBA at FRUs	52
Annexe 2-D: Competencies to be Developed in ASHA	53



# Background, Rationale and Principles of the Guidelines

## 1.1. Background: Current Status of Maternal and Newborn Health

Maternal health is important to communities, families and the nation due to its profound effects on the health of women, immediate survival of the newborn and long term well-being of children, particularly girls and the well-being of families. Maternal death and illness have cost implications for family and the community because of high direct and indirect costs, the adverse impact on productivity and the tremendous human tragedy that every maternal or child death represents. Maternal mortality and morbidity indicators reflect not only how well the health system is functioning, but also the degree of equity in public service delivery, utilisation of services, and the social status of women.

Every year, in India, 28 million pregnancies take place with 67,000 maternal deaths,<sup>1</sup> 1 million women left with chronic ill health, and 1 million neonatal deaths.<sup>2</sup>

Neonatal mortality in India is about 35/1000 live births<sup>1</sup> and neonatal mortality accounts for 50% of deaths of all children under five.<sup>3</sup> Three quarters of all neonatal deaths occur during the first week of life, and about 20% take place in the first 24 hours.<sup>4</sup> This is also the period when most maternal deaths take place. *Thus, the provision of maternal and newborn care through a continuum of care approach, ensuring care during critical periods of delivery and postnatal period, addresses the needs of the mother and the newborn through a seamless transition from home and village to the facility and back again.*<sup>5</sup> Care for the mother and newborn has to be provided from conception till the first 42 days after delivery at the home/community levels, institutions where delivery takes place and again at home after discharge from the facility.

High maternal and neonatal mortality is generally ascribed to medical causes. However maternal deaths are higher among Scheduled Castes (SCs) and Scheduled Tribes (STs)<sup>26</sup>, and among less educated and poorer families, indicating the importance of social determinants of high mortality.

Care for the mother and infant has to be provided from conception to the first 42 days after delivery at the home/community levels, institutions where delivery takes place and again at home after discharge from the facility.



<sup>1</sup> Sample Registration Survey, 2008, Government of India

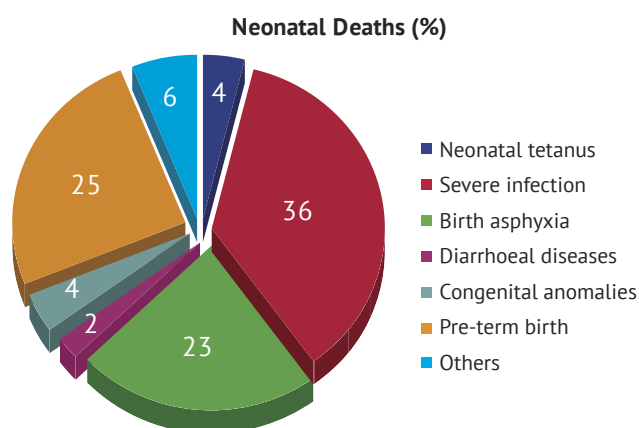
<sup>2</sup> State of the World's Children, UNICEF, 2009

<sup>3</sup> National Family Health Survey Phase 3, (2005-2006) International Institute of Population Studies

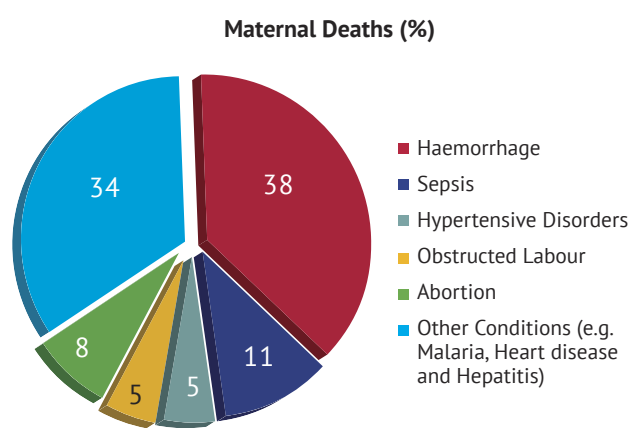
<sup>4</sup> Indian Council of Medical Research

<sup>5</sup> Source: World Health Organization, 2006, (WHO/FCH/CAH/09.02), "Home visits for the newborn child: A strategy to improve survival", WHO/UNICEF Joint Statement.

## 1.2. Causes of Maternal and Neonatal Deaths



WHO SEARO Mortality Country Fact Sheet, India 2007  
Source: World Health Statistics 2007<sup>24</sup>



SRS-2001-03Ref<sup>17</sup>

### Social determinants of maternal and neonatal mortality

The underlying social, political and economic conditions also contribute to maternal and neonatal deaths, and these require a wider range of interventions, beyond the direct purview of the health sector.

- 1. Economic and Social Status:** Women in poor households have reduced access to nutrition, rest, health education and healthcare – all of which are essential for safe pregnancy. Such women are also likely to be more malnourished and anaemic with greater risk of dying as a result of haemorrhage.
- 2. Early Marriage and Childbearing:** Women who get pregnant young tend to develop more complications during pregnancy and delivery and are more likely to die. Neonatal mortality is also higher among young women. Risk of complications is also higher among women whose pregnancies are not adequately spaced, and where there is frequent childbearing.
- 3. Public Infrastructure and Access to Care:** The lack of roads and public transport is a barrier to access. In such areas, the development and therefore density and functioning of both public and private health services is poor. This is a major contributor to maternal deaths.

**Delay 1:** Delay in recognising the problem (lack of awareness of danger signs, low status of women, no control over resources, lack of decision making) and deciding to seek care (health facility inaccessible, fear of costs, fear of poor treatment).



**Delay 2:** Delay in reaching the health facility (high costs, lack of transportation, poor roads).

**Delay 3:** Delay in receiving adequate treatment once a woman has arrived at the health facility (poor organisation or lack of skilled doctors and nurses, gaps in supply of equipment, shortfall of blood).



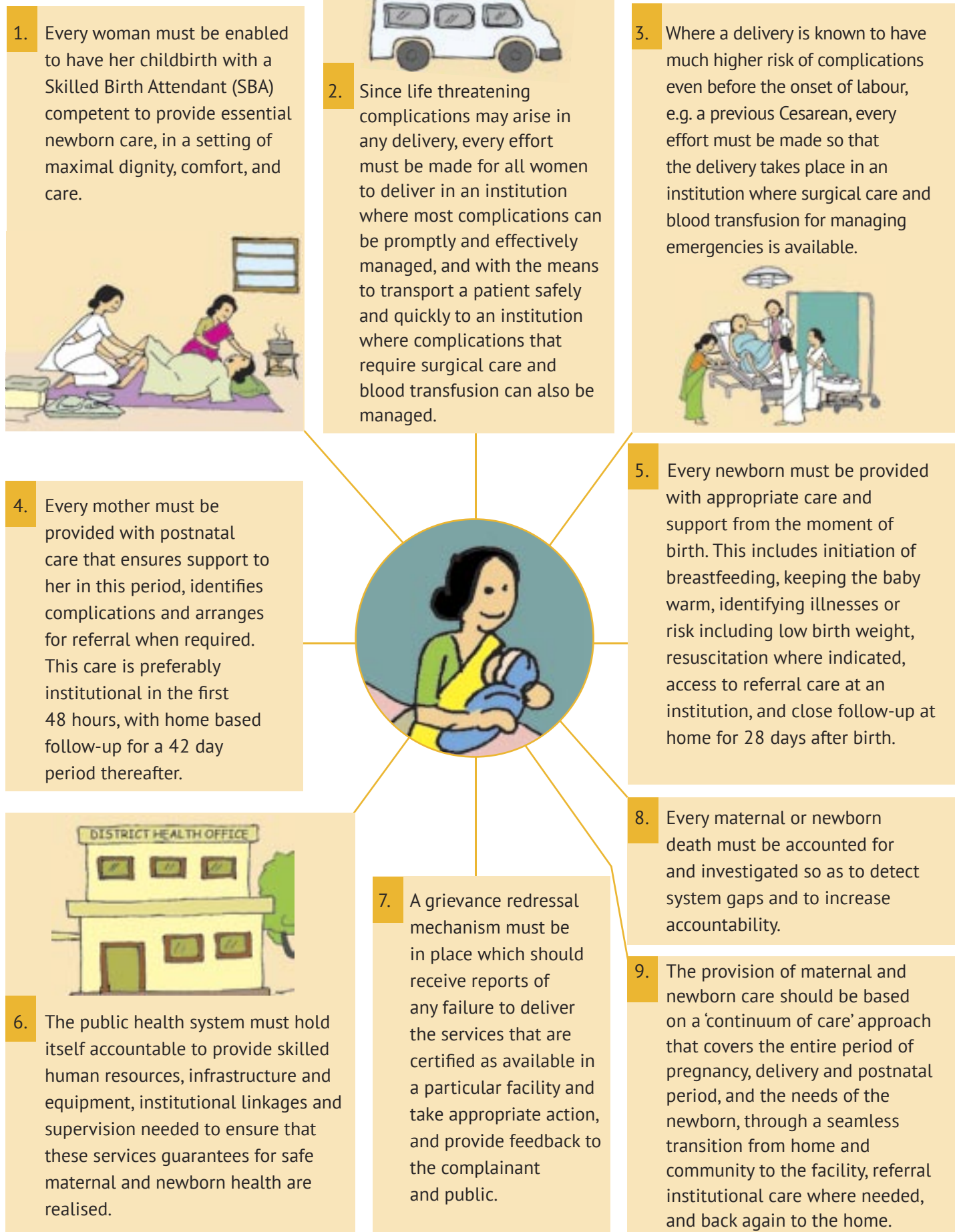
### 1.3. Rationale for Guidelines

This manual is designed to help programme managers at district and state level, to plan, implement and supervise the delivery of services that would guarantee a safe childbirth for every mother.

This manual answers the following key questions:

- What are the principles underlying the provision of care for mothers and newborns?
- What are the key strategies to improve maternal and newborn health?
- What is the package of services to be made available to ensure safe pregnancy and childbirth, and care of the newborn?
- Where are these services to be made available?
- What are the human resources and skills needed for providing services at each level? How and where can these skills can be built up?
- What infrastructure, equipment and supplies are needed to provide these services?
- What are the institutional linkages and community mobilisation initiatives needed to support these services?
- How do we monitor and supervise these services?
- How do we certify each institution for the quality and package of services it provides?
- What are the financial packages available for the provision of services at each level?

## 1.4. Principles of Organising Care for Maternal and Newborn Health





# Strategies for Ensuring Improvements in Maternal and Newborn Health

The key strategy is to ensure care of the pregnant mother and newborn during the period from conception up to 42 days of delivery. A more comprehensive approach to reducing maternal and neonatal mortality also encompasses the period of adolescence among girls to ensure that they are well-equipped for pregnancy and childbirth and the provision of family planning to ensure that no pregnancy occurs before the age of 21 years.

The strategies for maternal and newborn health include:

## 2.1. Provision of Quality Antenatal Care

All women must have access to a package of antenatal services provided in the community or at the facility by a provider who is skilled and who has the necessary equipment and supplies.

## 2.2. Ensure Access to a Skilled Birth Attendant

A Skilled Birth Attendant (SBA) is a professionally qualified individual who can handle normal pregnancies and deliveries, equipped with skills to provide essential newborn care, identify obstetric and neonatal emergencies, manage complications as per their defined competencies, and undertake timely referral to a higher centre where comprehensive obstetric care can be provided.

## 2.3. Functional Facilities to Provide Institutional Delivery

Care for pregnancy, childbirth and newborn can be provided at any of the three facility levels shown in the box:



### Definitions

Level 3

**Institutional Delivery (Comprehensive Level-FRU):** All complications managed including C-Section and blood transfusion, i.e. Comprehensive Emergency Obstetric and Newborn Care (**CEmONC**) provided at equipped public and private hospitals. The public and private hospitals would also be equipped with Neonatal Stabilisation Unit and Sick Newborn Care Unit (SNCU).

Level 2

**Institutional Delivery (Basic Level):** Delivery conducted by a skilled birth attendant in a 24x7 PHC level (PHC or CHC with Basic Emergency Obstetric and Newborn Care (**BEmONC**) or in a private nursing home with equivalent facilities) having Newborn Corner and Stabilisation Unit.

Level 1

**Skilled Birth Attendance:** This refers to a delivery conducted by skilled birth attendant in all Sub-Centres and in some Primary Health Centres (PHCs) which have not yet reached the next level of “24x7 PHC”. Newborn Corner in all facilities. Home deliveries assisted by a skilled birth attendant would also be included under safe deliveries at this level.

*The point is simple – any delivery that happens within the four walls of a health institution is not to be called institutional. It must provide a level of care as specified. Private sector care should also be grouped along these categories.*

## 2.4. Facility Based Newborn Care

This should be given at the time of birth as appropriate to each of the three levels – Sick Neonatal Care Unit at district hospitals, Newborn Stabilisation Units at all institutional delivery facilities, whether comprehensive or basic, and Newborn Care Corner at other facilities.

## 2.5. Home Based Newborn Care and Postnatal Care

This should be provided through a series of visits. (First two days of care should be given at the facility where institutional delivery took place.) At home, care should be provided within 24 hours of delivery for the newborn by a trained community health volunteer who may be an Accredited Social Health Activist (ASHA) or an Anganwadi Worker (AWW) or other health worker as appropriate to that context and who is a resident of that habitation.



## 2.6. Referral Linkage and Transport

This is for access to emergency services. The ideal situation is where every mother delivers in an institution with access to a referral centre within one hour in case of complications, requiring surgery and blood transfusion. District health plans must conform to a roadmap to reach this ideal, respecting and supporting the wishes of families at every stage.

## 2.7. Behaviour Change Communication (BCC)

This is carried out by ASHA and other health workers to ensure care in pregnancy and for the newborn, recognition of complications and their danger signs, birth planning, and choosing a safe site for delivery.

## 2.8. Involvement of Women's Groups and Community Mobilisation



This is required to promote key messages for delaying age at marriage, spacing, delaying age at first birth, ensuring gap of at least 3 years between pregnancies and management of unwanted pregnancies.

To ensure delivery of these services, the programme should define a) the package of services to be delivered at each level, b) the quality of standards and protocols for these services, c) the minimum skills the service providers would have to be certified for, d) the process of certification of both facility and of service provider, and e) the institutional linkages and community mobilisation that is needed.

This service delivery framework is given in the next chapter.



## 1 Antenatal Care (minimum 4 ANC visits including registration)

Level 1 SBA Level	Level 2 Institutional (Basic Level)	Level 3 Institutional (Comprehensive Level)
<p><b>Delivery by SBAs (Sub-Centre, PHCs not functioning as 24x7 and home deliveries conducted by SBA)</b></p>	<p><b>PHC-Basic Obstetric and Neonatal Care (24X7 PHCs, CHCs other than FRUs)</b></p>	<p><b>FRU-Comprehensive Obstetric and Neonatal Care (DH, SDH, RH, CEmONC, selected CHCs)</b></p>
<p>ANC session should include:-</p> <ul style="list-style-type: none"> <li>● Registration (within 12 weeks)</li> <li>● Physical examination + weight+ BP + abdominal examination</li> <li>● Identification and referral for danger signs</li> <li>● Ensuring consumption of at least 100 IFA tablets (for all pregnant women)/200 (for anaemic women). Severe anaemia needs referral.</li> <li>● Essential lab investigations (HB%, urine for albumin/sugar, pregnancy test)</li> <li>● TT immunisation (two doses at interval of one month)</li> <li>● Counselling on nutrition, birth preparedness, safe abortion and institutional delivery</li> </ul> <p>Assured referral linkages for complicated pregnancies and deliveries</p>	<p><b>All in Level 1</b> + blood grouping &amp; Rh typing, Wet mount (saline/KOH), RPR/VDRL</p> <p>Management and provision of all basic obstetric &amp; newborn care including management of all complications other than those requiring blood transfusion or surgery</p>  <ul style="list-style-type: none"> <li>● Linkages with nearest ICTC/ PPTCT centre for voluntary counselling and testing for HIV and PPTCT services</li> </ul>	<p><b>All in Level 1</b> + blood cross matching + management of severe anaemia</p> <p>Management of complications in pregnancy referred from <b>Levels 1 and 2</b></p> 



## 2 Intranatal Care

Level 1 SBA Level	Level 2 Institutional (Basic Level)	Level 3 Institutional (Comprehensive Level)
<p><b>Delivery by SBAs (Sub-Centre, PHCs not functioning as 24x7 and home deliveries conducted by SBA)</b></p>	<p><b>PHC-Basic Obstetric and Neonatal Care (24X7 PHCs, CHCs other than FRUs)</b></p>	<p><b>FRU-Comprehensive Obstetric and Neonatal Care (DH, SDH, RH, CEmONC, selected CHCs)</b></p>
<ul style="list-style-type: none"> <li>• Normal delivery with use of partograph</li> <li>• Active management of third stage of labour</li> <li>• Infection prevention</li> <li>• Identification and referral for danger signs</li> <li>• Pre-referral management for obstetric emergencies, e.g. eclampsia, PPH, shock</li> <li>• Assured referral linkages with higher facilities</li> </ul> <p><b>Essential newborn care will include:</b></p> <ul style="list-style-type: none"> <li>• Neonatal resuscitation</li> <li>• Warmth</li> <li>• Infection prevention</li> <li>• Initiation of breastfeeding within an hour of birth</li> <li>• Screening for congenital anomalies</li> <li>• Weighing of newborns</li> </ul>	<p><b>All in Level 1 +</b></p> <p>Availability of following services round the clock</p> <ul style="list-style-type: none"> <li>• Episiotomy and suturing cervical tear</li> <li>• Assisted vaginal deliveries like outlet forceps, vacuum</li> <li>• Stabilisation of patients with obstetric emergencies, e.g. eclampsia, PPH, sepsis, shock</li> <li>• Referral linkages with higher facilities</li> </ul> <p><b>Essential newborn care as in Level 1+</b></p> <ul style="list-style-type: none"> <li>• Antenatal Corticosteroids to the mother in case of pre-term babies to prevent Respiratory Distress Syndrome (RDS)</li> <li>• Immediate care of LBW newborns (&gt;1800 gm)</li> <li>• Vitamin K for premature babies</li> </ul>	<p><b>All in Level 2 +</b> availability of following services round the clock:</p> <ul style="list-style-type: none"> <li>• Management of obstructed labour</li> <li>• Surgical interventions like Caesarean section</li> <li>• Comprehensive management of all obstetric emergencies, e.g. PIH/Eclampsia, Sepsis, PPH retained placenta, shock etc.</li> <li>• In-house blood bank/blood storage centre</li> <li>• Referral linkages with higher facilities including medical colleges</li> </ul> <p><b>Essential newborn care as in Level 2 +</b></p> <ul style="list-style-type: none"> <li>• Care of LBW newborns &lt;1800 gm</li> <li>• Care of sick newborns</li> <li>• Vitamin K for premature babies</li> </ul>





# 3 Postnatal and Newborn Care

Level 1 SBA Level	Level 2 Institutional (Basic Level)	Level 3 Institutional (Comprehensive Level)
<p><b>Delivery by SBAs (Sub-Centre, PHCs not functioning as 24x7 and home deliveries conducted by SBA)</b></p>	<p><b>PHC-Basic Obstetric and Neonatal Care (24X7 PHCs, CHCs other than FRUs)</b></p>	<p><b>FRU-Comprehensive Obstetric and Neonatal Care (DH, SDH, RH, selected CHCs)</b></p>
<ul style="list-style-type: none"> <li>• Minimum 6 hrs stay post delivery</li> <li>• Counseling for Feeding, Nutrition, Family Planning, Hygiene, Immunisation and PN check-up</li> <li>• Home visits on 3<sup>rd</sup>, 7<sup>th</sup> and 42<sup>nd</sup> day, both for mother and baby, are needed. Additional visits are needed for the newborn on day 14, 21 and 28. Further visits may be necessary for LBW and sick newborns.</li> <li>• Timely identification of danger signs and complications, and referral of mother and baby</li> </ul> <p><b>Newborn Care</b></p> <ul style="list-style-type: none"> <li>• Warmth</li> <li>• Hygiene and cord care</li> <li>• Exclusive breastfeeding for 6 months</li> <li>• Identification, management and referral of sick neonates, low birth weight (LBW) and pre-term newborns</li> <li>• Referral linkages for management of complications</li> <li>• Care of LBW newborns &lt;2500 gm</li> <li>• Zero day immunisation OPV, BCG, Hepatitis B</li> </ul>	<p><b>All in Level 1 +</b></p> <ul style="list-style-type: none"> <li>• 48 hours stay post delivery and all the postnatal services for zero and third day to mother and baby</li> <li>• Timely referral of women with postnatal complications</li> <li>• Stabilisation of mother with postnatal emergencies, e.g. PPH, sepsis, shock, retained placenta</li> <li>• Referral linkages with higher facilities</li> </ul> <p><b>Newborn Care as in Level 1 +</b></p> <ul style="list-style-type: none"> <li>• Stabilisation of complications and referral</li> <li>• Care of LBW newborns &gt;1800 gm</li> <li>• Referral services for newborns &lt;1800 gm and other newborn complications</li> <li>• Management of sepsis</li> </ul>	<p><b>All in Level 2 +</b></p> <ul style="list-style-type: none"> <li>• Clinical management of all maternal emergencies such as PPH, Puerperal Sepsis, Eclampsia, Breast Abscess, post surgical complication, shock and any other postnatal complications such as RH incompatibility etc.</li> </ul> <p><b>Newborn Care as in Level 2 +</b> in district hospitals through Sick Newborn Care Unit (SNCU)</p> <ul style="list-style-type: none"> <li>• Management of complications</li> <li>• Care of LBW newborns &lt;1800 gm</li> <li>• Establish referral linkages with higher facilities</li> </ul> 

## 4 Safe Abortion Services as per MTP Act

Level 1 SBA Level	Level 2 Institutional (Basic Level)	Level 3 Institutional (Comprehensive Level)
Delivery by SBAs (Sub-Centre, PHCs not functioning as 24x7 and home deliveries conducted by SBA)	PHC-Basic Obstetric and Neonatal Care (24X7 PHCs, CHCs other than FRUs)	FRU-Comprehensive Obstetric and Neonatal Care (DH, SDH, RH, CEmONC, selected CHCs)
Counseling and facilitation for safe abortion services	<p>Same as in Level 1 +</p> <ul style="list-style-type: none"> <li>Essential – MVA up to 8 weeks</li> <li>Desirable first trimester services (up to 8 weeks) as per MTP Act and Guidelines</li> <li>Post abortion contraceptive counselling</li> <li>Referral linkages with higher centre for cases beyond 8 weeks of pregnancy up to 20 weeks</li> <li>Treatment of incomplete/inevitable/spontaneous abortions</li> <li>Medical methods of abortion (up to 7 weeks of pregnancy) with referral linkages</li> </ul>	<p>Same as in Level 2 +</p> <ul style="list-style-type: none"> <li>Second trimester MTP as per MTP Act and Guidelines</li> <li>Management of all post abortion complications</li> </ul>



## 5 Management of RTI/STIs

Counseling, prevention and referral	<p>All in Level 1 +</p> <ul style="list-style-type: none"> <li>Identification and management of RTI/STIs</li> <li>Referral linkages with ICTC</li> </ul>	<p>All in Level 2 + ICTC (desirable)</p> <ul style="list-style-type: none"> <li>PPTCT at district hospitals</li> </ul>
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## 6 Family Planning Services as per the FP Guidelines

<ul style="list-style-type: none"> <li>Emergency contraception pills</li> <li>Counseling, motivation for small family norm, distribution of condom, oral contraceptive pills, IUD insertion</li> <li>Follow-up services for contraceptive acceptors, including post sterilisation acceptors</li> </ul>	<p>All in Level 1 +</p> <ul style="list-style-type: none"> <li>Desirable - Male Sterilisation including Non-Scalpel Vasectomy + Tubectomy</li> <li>Referral linkages for sterilisation</li> </ul>	<p>All in Level 2 +</p> <ul style="list-style-type: none"> <li>Male Sterilisation including Non-Scalpel Vasectomy</li> <li>Female Sterilisation (Mini-Lap and Laparoscopic Tubectomy)</li> <li>Management of all complications</li> </ul>
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## Making Home Deliveries Safer

Even while we continue to promote institutional delivery, we have a “responsibility to help families choosing to give birth at home to have a safe and clean labour, delivery, and post-partum experience”. The single most important component of making a home delivery safe is ensuring that a SBA attends the delivery. The second most important component is to have a plan for referral if complications arise.

This birth preparedness plan must be made during Antenatal Care (ANC) visit. The birth plan includes contact information, knowledge of danger signs, transport arrangement, Maternal and Child Health card, financial arrangements, potential last minute access to the referral facility etc. The plan is entered into the woman’s antenatal card.

### I. Symptoms or signs that identify a woman at risk who should not deliver at home

**Danger signs** – Any bleeding in pregnancy, generalised swelling of the body and seizures, high fever.

**During previous pregnancy** – Caesarean delivery, poor obstetric history with previous foetal loss; in this pregnancy, premature labour or malpresenting foetus, severe anaemia, medical disorders such as heart disease, diabetes, tuberculosis, hepatitis or jaundice.

### II. Checklists for preparation of home birth

i) **Checklist for Family:** Families of women who have made up their mind on a home delivery should be given a checklist (Annexe I-B), at least a month before the due date, to help ensure they have everything ready for a safe home birth. The nurse/midwife or ASHA should visit the home with the checklist at least two weeks before the expected date of delivery to make sure that the family is prepared. The family/ASHA should call the ANM at the onset of labour.



ii) **Checklist for the ANM:** The ANM must be informed and be present with her kit (Annex 1-B) during labour and delivery to provide skilled attendance at birth, and ASHA to help provide care for the newborn.



iii) **The Safe Home Delivery Protocol:** Is described in the MoHFW Guidelines for ANM, LHV, Staff Nurses<sup>6</sup>



## The Infrastructure and Support Services

Level 1 SBA Level	Level 2 Institutional (Basic Level)	Level 3 Institutional (Comprehensive Level)
Delivery by SBAs (Sub-Centre, PHCs not functioning as 24x7 and home deliveries conducted by SBA)	PHC - Basic Obstetric and Neonatal Care (24X7 PHCs, CHCs other than FRUs)	FRU-Comprehensive Obstetric and Neonatal Care (DH, SDH, RH, selected CHCs)
<b>i) Minimum number of beds</b>		
Facility for staying at least 6 hrs: In home deliveries, SBA should be available for 4 hours after child birth.	Minimum 6 beds, stay - 48 hrs (uncomplicated delivery)	Minimum 30 beds, stay - 48 hrs (uncomplicated delivery), 3-7 days (complicated)
<b>ii) Human resource</b>		
<p>Minimum two ANMs (trained as SBA) of which one is available at the headquarters most of the time.</p> <p>(In PHC, it could be trained nurses)</p> <p><i>For home delivery, the SBA would need assistance of a team of two or three women of which at least one could be ASHA, dai, AWW or any community level health worker and another could be a Self-Help Group (SHG) member or any community volunteer, to help with ancillary functions.</i></p>	<ul style="list-style-type: none"> <li>1-2 MO with BEmOC training, trained in F.IMNCI</li> <li>3-5 Staff Nurses/ANM with SBA training and NSSK (round-the-clock presence)</li> <li>Other supportive staff</li> </ul>	<p><b>As in Level 2 +</b></p> <ul style="list-style-type: none"> <li>Obstetrician (degree/diploma/ MBBS with EmOC training)</li> <li>An anaesthetist (degree/ diploma/MBBS with LSAS training)</li> <li>Paediatrician (degree/diploma/ MBBS trained in F.IMNCI)</li> <li>For blood transfusion services: A lab technician with skills in blood transfusion or a MO trained to provide these services</li> <li>Nursing Care – At least 9 more nurses to work on 8 hour shift duties and provide quality nursing care, in labour room (3), neonatal stabilisation unit (3), OT and other areas of these hospitals (3). DH-SNCU would require even more.</li> </ul>
<b>iii) Labour room</b>		
<p>Labour table and newborn care corner to provide immediate care for all newborns. For drugs, equipment and essential drugs (see Annexure I-A)</p> <p>At home – clean surface and surroundings</p>	<p><b>All in Level 1 +</b></p> <p>Vacuum extractor + newborn corner + stabilisation unit where most sick and LBW newborns are stabilised. For drugs, equipment and essential drugs (see Annexure 1-C)</p>	<p><b>Same as in Level 2 +</b></p> <p>Special Newborn Care Unit. For drugs, equipment and essential drugs (see Annexure 1-D)</p>



<b>Level 1 SBA Level</b>	<b>Level 2 Institutional (Basic Level)</b>	<b>Level 3 Institutional (Comprehensive Level)</b>
<b>Delivery by SBAs (Sub-Centre, PHCs not functioning as 24x7 and home deliveries conducted by SBA)</b>	<b>PHC - Basic Obstetric and Neonatal Care (24X7 PHCs, CHCs other than FRUs)</b>	<b>FRU-Comprehensive Obstetric and Neonatal Care (DH, SDH, RH, selected CHCs)</b>
<b>iv) Functional Operation Theatre (OT) and Blood Transfusion Facility</b>		
Not required	OT for minor procedures including for sterilisation and MVA	<ul style="list-style-type: none"> <li>● 24x7 functional OT with facility for C-section</li> <li>● Blood Bank/Blood Storage Unit</li> </ul>
<b>v) Drugs and equipment</b>		
See annexure	See annexure	See annexure
<b>vi) Diet provision</b>		
None: Clean safe drinking water. Boiled and cooled water. Home food brought by patient's family	Diet provided by facility – hot cooked meals	Diet provided by facility – hot cooked meals
<b>vii) Transport</b>		
<ul style="list-style-type: none"> <li>● Should be linked to a transport service that reaches within 30 minutes and transport patient to referral centre.</li> <li>● Transport may be needed for ANM to reach the home of pregnant women.</li> </ul>	<ul style="list-style-type: none"> <li>● Should have an ambulance that could transfer patient to referral centre within an hour.</li> <li>● Should be able to pick up patient from the village.</li> <li>● Should drop patient back home in specific category of cases.</li> </ul>	Should be able to pick up and drop patient as required. Should be available on 24x7 call basis.
<b>viii) Water and electricity</b>		
Assured water supply that can be drawn and stored locally. Electricity supply linked to main lines or adequate solar source, inverter or back-up generator as appropriate.	Piped 24 hour water supply and 24x7 electricity link with generator back-up	<b>Same as in Level 2</b>
<b>ix) Lighting, warmth and ventilation</b>		
No drafts; some simple ways of keeping room warm and ventilated. Insect proofing required.	Minimum required ventilation, lighting and warmth. Minimum lighting measured in lux. Insect proofing mandatory.	<b>Same as in Level 2+</b> Controlled temperature in intensive setting such as SNCU and OT.

Level 1 SBA Level	Level 2 Institutional (Basic Level)	Level 3 Institutional (Comprehensive Level)
Delivery by SBAs (Sub-Centre, PHCs not functioning as 24x7 and home deliveries conducted by SBA)	PHC - Basic Obstetric and Neonatal Care (24X7 PHCs, CHCs other than FRUs)	FRU-Comprehensive Obstetric and Neonatal Care (DH, SDH, RH, selected CHCs)
<b>x) Security</b>		
Provided by family and attenders	One person on security duty at all times. No stray animals allowed in premises. Compound wall mandatory*.	Security round-the-clock through an outsourced or adequately staffed internal arrangement. Compound wall mandatory.*
<b>xi) Sanitation and hygiene</b>		
One toilet for patient use that is kept clean at all times. Fresh sheet for every patient, fresh sheet for every day for every bed in use and as needed.	<ul style="list-style-type: none"> <li>At least two toilets for patient use and two bathing and washing spaces.</li> <li>Separate spaces for women</li> <li>Fresh sheet for every patient, fresh sheet for every day. Laundry service desired.</li> </ul>	<ul style="list-style-type: none"> <li>At least six toilets and three bathing spaces for patient use.</li> <li>Rest same as in Level II, but assured laundry service must be in place.</li> </ul>
<b>xii) Infection prevention<sup>6</sup></b>		
Hand washing as per protocol. Use of disposable gloves, use of disinfectants, clean sheet, new blade for cord cutting, sterilised cord ties, In facility – boiling of instruments and colour coded bins.	<b>Same as in Level 1 +</b> Autoclave, colour coded bins	<b>Same as in Level 2</b>
<b>xiii) Waste management<sup>25</sup></b>		
Hub-cutter, puncture proof boxes for needle disposal, deep burial of placenta	<b>Same as in Level 1</b> Deep burial of placenta and all blood and tissue fluid stained	<b>Same as in Level 1</b>
<b>xiv) Rest facilities</b>		
Not needed	Relative/companion waiting and utility space needed	For ASHAs, birth companion and relatives; separate toilets/kitchen, needed.
	Birth waiting homes in institutions for families residing in remote areas with poor road connectivity	

\* Overcrowding of wards to be prevented.

# Making Choices for Safe Delivery

## 4.1. Choices before the district planner

Given below is an example of district planning for safe delivery for all pregnant women, applying the principles and strategies discussed:

District Population: 20,00,000: Birth rate: 27/1000

Expected Annual deliveries: 54,000: Monthly Deliveries: 4,500

Blocks: 10 - One with DH, two with a CHC and seven with a block PHC

District Plan Target: 100% safe deliveries in a three year time period

### Institutional Comprehensive Level (providing CEmONC services)

- Strengthen the District hospital, to manage 800 deliveries per month: of which 400 are expected to be complicated, referred from lower level institutions. The majority of the 400 normal deliveries come from the nearby peri-urban areas.
- This load of complicated and normal deliveries can also be shared by one private health facility that provides this level of service.
- Strengthen and upgrade two CHCs to this level of service provision. These could manage 200 deliveries each per month. About half are expected to be complicated cases.

### Institutional Basic Level (providing BEmONC services)

- Strengthen the remaining seven block PHCs and upgrade 11 APHCs (out of about 40 in the district) to Institutional Basic level (24X7 PHCs)
- Potential to enter into partnerships with two private health facilities, which provide this level of service to share the caseload.
- These twenty institutions would manage a total of 2,500 deliveries per month, or about 125 deliveries each per month, which would be mostly normal deliveries.
- These institutions would have the capacity to manage selected complications and stabilise other complications for onward referral if C section and blood transfusion are required.

### SBA Level

- Strengthen 50 of the 400 sub-centres of the district and some of the remaining APHCs to be able to attend to at least 1000 deliveries per month.
- These facilities would be selected from areas where the 24X7 PHC is distant, or overcrowded, or poor families in that area are not confident of traveling so far and would prefer the delivery to be nearer home.
- While a majority of the deliveries would take place in the facility, the alternative of the ANM attending the delivery at the house could be planned for under appropriate circumstances.

Institutional  
Comprehensive Level  
600  
District Hospital  
400 | CHC/FRU and Pvt. Hospital

Institutional  
Basic Level  
2500  
24 X 7 PHC + Pvt. Nursing Home

SBA Level  
1000  
Sub-Centre and other  
APHC Deliveries  
by ANM



Depending upon the specific context in each district, the number of deliveries in each category and the choice of facilities to upgrade would differ.



## 4.2. Decisions People Make

### Woman's choice

Where should I go for a safe delivery?



If I go to the PHC which is open 24 hours, I will be cared for and can rest for two days. Also, if there is any surgery needed, they can rush me to the big hospital quickly.



If danger signs or complications develop before the delivery, I will need to go to the big hospital straight away, but I hope that does not happen.



I will also need to ensure that I have an escort, maybe the ASHA, to accompany me, and that someone is taking care of the children and things at home.

### Birth Micro Plan of ASHA/ANM/AWW



I help every family with a pregnant woman to make a birth plan.



If she has any danger signs or complications, I will ask her to go to the CHC or DH when her delivery is due. I must also make arrangements to ensure that the transport is ready and available at that time.



If she has no complications, I will counsel her to go to the 24x7 PHC, and for this too, I must ensure that transport arrangements are made in time.



But if she and her family do not want to go that far and the 24x7 PHC is crowded, I will advise her to go to the nearby sub-centre where two ANMs are trained to conduct deliveries and one of them is always there.

For some women, family circumstances and beliefs make even going to the sub-centre difficult. I will then get the ANM to come to her house, and will assist in the preparations needed, after counseling that a safe delivery in this situation may not always be possible.





In addition to the supervisory structure that exists in the state government system, the following need to be put in place. The supervision mechanisms should be organised at three levels: Block, District and State levels.

## 5.1. Block Level Supervision

Designation	Responsibilities	Profile
Skills Supervisor	<ul style="list-style-type: none"> <li>Ensures that all nurse-midwife service providers have the necessary skills through on-the-job mentoring.</li> <li>Ensures that protocols of care built up for the services at each level are followed, and all service providers have necessary skills.</li> <li>Guides and ensures that all existing Lady Health Visitors (LHVs) undertake clinical supervision in accordance with protocols.</li> </ul>	<ul style="list-style-type: none"> <li>A nurse-practitioner</li> </ul> <p>Or a nurse recruited and trained for the necessary competencies.</p>
Quality Supervisor	<ul style="list-style-type: none"> <li>Ensures that all facilities and institutions in the block are certified for quality which includes security, safety and comfort of pregnant women and newborns.</li> <li>Provides the necessary logistic and organisational support to improve facility level quality and management processes.</li> <li>Builds up community level linkages to ensure demand generation.</li> <li>Trains all existing supervisors.</li> </ul>	<ul style="list-style-type: none"> <li>The existing supervisors (male or female), could be selected for this purpose.</li> <li>Alternatively, a fresh management graduate willing to be trained for the position could be selected.</li> </ul>
Block Level Accounts Manager	<ul style="list-style-type: none"> <li>Ensures that all payments made at block and sub-block level are accounted for in a timely manner and open to public scrutiny.</li> <li>Ensures that all facilities and providers making payments maintain proper accounts.</li> </ul>	<ul style="list-style-type: none"> <li>Existing block accounts manager if in place.</li> <li>Alternatively, a contractual accountant could be recruited for this purpose.</li> </ul>

Supervisors would have a handbook with both checklists and protocols. A dynamic supervisory team would play a key role in changing the current work ethics and institutional culture.

## Main Indicators at Block and District Level

### Pregnant Woman

- % of pregnancies registered as against expected
- % of deliveries attended by SBA at each level
- % of ANCs registered within 12 weeks
- % of complicated deliveries attended
- % of complications identified and appropriately treated by diagnosis: severe anaemia, haemorrhage, prolonged/obstructed labour, hypertension in pregnancy, puerperal sepsis
- % complication referred
- C-section rates

### Newborn

- % of newborns weighed
- % of newborns who were LBW
- % of newborns admitted and managed for complications
- % of newborns breastfed within the first hour
- % newborns resuscitated
- % of stillbirths and neonatal deaths

### Family Planning

Appropriate family planning indicators as per per the HMIS

### Deaths

- ◆ Reports of still births, neonatal deaths, maternal deaths and causes
- ◆ Maternal and neonatal death autopsy reports

Note: Only those indicators required by the national level based on HMIS guidelines would be reported up. The remaining indicators are to be used for planning and management purposes.

### Processes of Supervision

- Periodic review meetings
- Monthly analysis, validation and feedback of HMIS data
- Facility visits: using supervisory protocols
- Training: on-the-job, refresher and supplementary

## 5.2. District Level Supervision

The number of supervisors needed at the block and district levels depends on the number of facilities providing delivery services. One skill supervisor and one quality supervisor for 10 facilities is adequate. If there are more than 50 facilities in a district, including sub-centres where institutional deliveries take place, then another set of district level supervisors will be required. This could be one full time nurse tutor or one full time quality supervisor. In addition, the Assistant Chief Medical Officer or RCH officers could provide support.

The quality supervisors and programme officers would be responsible for the facility support and quality certification of each of these facilities. They would also manage the grievance redressal cell which would include non-official members.

## 5.3. State Level Supervision

Quarterly review meetings would be held by the state Secretary or the Mission Director, with representative of Ministry of Health and Family Welfare (MoHFW) invited.

A quality certification body of five persons would organise and supervise the process of quality certification of facilities. This could be located in a Quality Assurance Cell, wherein professional bodies are represented.

The Training and Skills Coordination team located in the State Institute of Health and Family Welfare (SIHFW) or other suitable bodies with guidance from NIHFW would monitor, support and ensure the performance and outcomes of the nurse-supervisors in terms of skills in place and use of protocols.

## 6.1. Components

- Standards of care for each service that meet quality requirements.
- An authorised certifying team charged with making the visit and certifying the institution.
- A process of verification of the facilities so certified.
- A process of withdrawal of certification if standards fall below the acceptable norms.
- A process of public announcement of certification or its withdrawal.

## 6.2. Standards of Care

The areas that should be covered are given in the service delivery framework. The details of these would be given in the supervisor's handbook. Supportive supervision would be able to grade every facility in terms of the package of services it provides, the quantity of services it provides and the quality of each service provided. Once the service is ready for inspection and certification, the supervisors should inform the certifying authority.

## 6.3. Authorised Certification Team

The current quality assurance body could be the certification team with one consultant added in by the Mission Director of the state and another nominated by the Mission Director at the national level. In the district quality assurance team, the district would specify three persons selected as per guidelines that are available and train them for this purpose. A checklist and guide manual for certification should be made available. The members of this team should be paid on a per visit basis.



## 6.4. Verifying Process

About 5% of facilities in each district should be verified by a second body. In case of gross errors in certification, the composition and conduct of the certification team should be re-assessed and changed where needed.

## 6.5. Withdrawal

Withdrawal can be initiated in response to a report from the facility itself, or from the supervisor, or the certifying or verifying team or in response to a public grievance of denial which was investigated and found to be valid. The same authority as signs the certification would sign its withdrawal.

## 6.6. Public Announcement

Notices would be put up in the facility and panchayat offices. Information must be passed on to the ASHAs and service providers of the facilities below the institution level who refer cases to it. In addition, it could be announced as a news item or advertisement in the local newspaper with the largest circulation in that district.

## 7.1. The Key Issues



- Getting adequate number of skilled providers in place including leveraging of partnerships.
- Ensuring that the skills of the providers are adequate to deliver quality services.
- Ensuring that there is a positive workforce environment and supportive supervision.
- Ensuring that there is human resource planning for managers and supervisors.

The service delivery framework specifies the numbers and qualifications of the service providers.

## 7.2. Human Resource Requirements, Skill Requirements and Training

The table below specifies the skill level required and the training that has been prescribed to achieve this level.

Facility	Minimum human resource requirements	Skill requirements	Training required
Sub-Centre	Minimum two ANMs (trained as SBA) of which one is available at the headquarters most of the time.	ANM should have the skills of a SBA	21-day SBA training module. May be integrated with: <ul style="list-style-type: none"> <li>● IUD insertion training</li> <li>● NSSK training</li> <li>● HBNC supervision</li> <li>● Management of Childhood Illnesses</li> </ul> In which case, training period would be of 25 days.
Institutional - Basic	Two medical officers Three staff nurses or ANMs	The SN/ANMs should have skill levels at least of SBA and trained in NSSK. In addition, medical officers and any other staff involved in service provision should have skills of basic emergency obstetric care and essential and sick newborn care.	For SN/ANMs: As above For Medical Officers: <ul style="list-style-type: none"> <li>● Basic Emergency Obstetric Care (10 days BEmONC training)</li> <li>● F.IMNCI + NSSK (11+2 days)                             <ul style="list-style-type: none"> <li>◆ Safe abortion/MTP training</li> <li>◆ NSV skills</li> <li>◆ Conventional/mini-lap training +</li> </ul> </li> </ul> Post basic nurse practitioner training.



Facility	Minimum human resource requirements	Skill requirements	Training required
Institutional - Comprehensive	One Obstetrician/ Gynaecologist One Anaesthetist One Paediatrician or MBBS doctor trained in above skills + four other doctors and nine nurses. One lab tech trained for blood transfusion support	Skills to manage surgical obstetric emergencies, blood transfusion and neonatal emergencies. If specialists are not available, medical officers in these specialist skills can be trained.	16 weeks short-term training courses for medical officers on emergency obstetrics (EmOC), 18 weeks for anaesthesia (LSAS) for emergency obstetrics and 4 weeks course for paediatric skills. Integrate/add on with: <ul style="list-style-type: none"> <li>● Safe abortion/MTP training</li> <li>● Mini-lap and NSV training</li> </ul> Nurses trained as described earlier.
Home Based Level	ASHA or other community health volunteer	Skills to make a difference in home visits in the neonatal/post-partum period	15 days on home based care – assuming induction is over. Otherwise 25 days.

### 7.3. Positive Workforce Environment and Supportive Supervision

- Service providers should feel supported to stretch themselves and take the risks that are necessary to save lives. An environment where there are rewards and incentives for good performance and extra work helps. Social recognition and recognition from peers and superiors also helps.
- Periodic on-the-job visits and opportunities to learn provided by a team of supervisors is also central to improved performance. During supportive supervision visits, the supervisor assists the service provider in her tasks, follows up to see that gaps in supplies or infrastructure are bridged, provides training and encouragement as needed. The supervisor follows a checklist to ensure that every skill is rehearsed, every protocol is understood and followed, all the inputs are in place, and all processes and outputs recorded appropriately.

### 7.4. District Plan and the RCH Programme Manager

The district needs to have one senior programme manager at the second level to the CMO and one contractual programme manager to ensure that this programme is run according to the plan.

The programme manager should be trained and certified in every aspect of training and planning for this programme. He/She should ensure that every facility follows appropriate protocols of care and is monitored and supported to do so.

### 7.5. The State PIP and the State RCH Officer



The State PIP must aggregate district human resource needs and training plans, include plans for fulfilling staff shortages and address other related areas such as incentives for retention and good performance, for developing additional training sites.

## 8.1. Referral Transport and Referral Facility Linkage

All health facilities accredited for safe delivery or institutional delivery should necessarily have an assured referral transport linkage and an assured referral facility linkage.



## 8.2. What is an Assured Referral Transport?

I	II	III	IV
<p>A transport service that could become available within 30 minutes and be able to take the woman or newborn to a referral site within one hour.</p> 	<p>This may be:</p> <ul style="list-style-type: none"><li>a) an ambulance with the facility,</li><li>b) an ambulance called from the higher facility,</li><li>c) an ambulance service, or</li><li>d) a private or commercial transport vehicle.</li></ul>	<p>Communication contact with the vehicle driver directly or routed through a call centre.</p>	<p>The ambulance service should be free of cost at the time of need.</p> 

## 8.3. What is an Assured Referral Facility Linkage?

- An assured referral facility linkage is a facility which provides management of complications including surgical emergencies and blood transfusion (what is termed comprehensive emergency obstetric care) and which agrees to provide these services on a cashless basis to any patient referred from the referring facility. This may be a public hospital or an accredited private hospital through a public-private partnership arrangement.
- The effort should be to have a network of referral centres within one or two hours of any facility providing institutional delivery or any sort of skilled birth assistance.
- The facility referred to has been intimated by phone about the referral with a brief history of the patient, so that on arrival the women is received and treatment started immediately.

## 8.4. Improved Logistics on Drugs and Supplies

- All the drugs and supplies needed for provision of care in pregnancy, whether antenatal, intranatal or postnatal, and whatever the level of care, should be available as per the approved drugs and supplies list, without interruption in each and every facility.
- Warehouse: This primarily requires a district warehouse with a minimum stock of three months of all the drugs and supplies mentioned for each facility. The warehouse should have an adequate inventory management system. Minor equipment required for these facilities like blood pressure instruments and Sahle's haemoglobinometers should also be stocked at the district warehouse at a level of 25% of all the facilities requiring it, so that as and when they break or under repair, the facility has the required supplies.
- Every facility should indent when their stocks fall below an estimated three months requirement. Transport of supplies to the periphery should be assured by the district for Sub-Centres and all facilities without a vehicle to transport the stocks immediately.
- Procurement systems must ensure that drugs and supplies and minor equipment at the district level are replenished as and when the stocks fall below a three month threshold.



## 8.5. Family Planning Programme Linkages

All maternal healthcare providers should be able to counsel the new mothers and the families on how to plan their family size and the advantages of a small family. There is also a need to counsel for delaying the first child where the woman is in her teens or still young, and to space between children. Spacing should be advocated for its beneficial effect on the health of the mother and child and also on reduction of MMR and IMR.

They should also counsel on contraceptive choices so that the family can make the most appropriate contraceptive choice for their context and need.

There is also a need to counsel against son preference.

Since specialised service providers are few, SBAs must have adequate skills in family planning methods, especially for Intrauterine Device (IUD) insertion to space between children and while waiting for sterilisation. IUD quality and effectiveness has now improved such that it could be the only contraception opted for.

Similarly, doctors in institutional delivery settings must also be able to do female sterilisation post-partum or by mini-lap procedure, or a non-scalpel vasectomy.

To the extent that the service provider has won the confidence of the mother and her family, and established her credibility, her advice on family planning should be taken seriously and acted on.



Wherever suitable private providers of care in pregnancy and for the newborn exist, effort should be made to engage with them based on the following principles:

- The standards of care should be the same for private providers as they are for the public facilities. The certification process should also be similar.
- Mapping should be done of all private providers in a district. Where there are public sector gaps at a given level of service delivery, available private sector partners could be recruited and utilised to fill in service provider gaps.
- Where public-private partnerships are opted for, care must be taken to draft a contract where the costs and quality are specified and monitored, and access to the poor is ensured. There are GoI guidelines that specifically cover all these inputs and include the process of accreditation of such facilities.
- Not only signing the contract but the supervisory structure and programme managers specified earlier should be charged with effective contract management. It also needs a state level policy and guidelines for the same.
- Payment must be prompt and made with dignity so as to be able to attract and retain the most service oriented and sincere partners.
- Special preference may be given to mission hospitals, philanthropic hospitals, public sector undertaking hospitals, NGO run or worker managed hospitals.



# Community Support Systems and Linkages

## 10.1. Why Community Mobilisation?

- Positive outcomes for maternal, newborn and child health programmes require active community participation and support.
- Community mobilisation is the process by which the community feels enthused and empowered to act. It is the process by which the community gains the knowledge, optimism and organisation needed for action and change.
- Marginalised and vulnerable sections require more intensive effort in the process of mobilisation and service delivery.
- For certain services, like replacing unsafe abortion with safe abortion services, or male sterilisation, demand generation is also required.
- Behaviour change on critical aspects like age of marriage and first child also requires community mobilisation.

## 10.2. Who/What are the modalities of community mobilisation?

Five mechanisms critical to enabling the continuum of care for mother and newborn are:

- ASHA
- Village Health and Nutrition Day
- Village Health and Sanitation Committee
- Women's groups of different types – Self-Help Groups (SHGs), mother's groups etc.
- The elected local panchayats.





### 10.2.1. The ASHA

**Role of the ASHA:** At the village level, the ASHA plays a major role in building the community's awareness of their healthcare entitlements, in providing health education, in facilitating the community's access to essential health services, and in delivering preventive, promotive and first contact curative care.

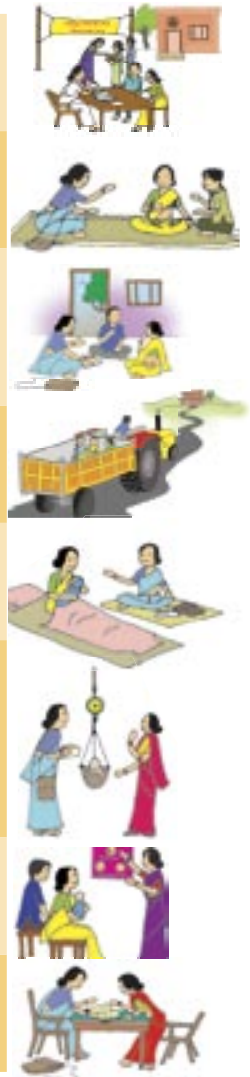
**Service Provider Skills:** ASHA would be trained in skills to provide a limited package of first contact care for mothers and newborns, in addition to preventive and promotive services. This actually enables a better realisation of the continuum of care. Provision of essential newborn care for the normal baby whether delivered in an institution or home is well within the purview of a trained and skilled ASHA.

### 10.2.2. The Village Health and Nutrition Day (VHND)

An ANM may have anywhere from 4 to 10 anganwadi centres in her area. On one fixed day, every month she visits each of these anganwadis which cater to one or more habitations/hamlets

**Measurable Tasks for the care of the mother and newborn:** The role of the ASHA in maternal and newborn health is to:

1.	Track and mobilise pregnant mothers to attend monthly clinics, such as the VHND and facilitate access to antenatal care services provided by the ANM.
2.	Prepare birth preparedness plans for pregnant women with support from family members and ANM.
3.	Conduct home visits to the pregnant woman to counsel the family on antenatal care- especially related to nutrition and rest, protection from malaria, alertness to danger signs and complications, and for making the birth plan.
4.	Support institutional delivery, including arranging for transport and escort to the facility and act as the birth companion if that is needed and possible.
5.	Make home visits in the postnatal period to diagnose and refer in case of complications such as bleeding or infection.
6.	Make newborn care visits (five visits on Days 3, 7, 14, 21, and 28, in addition to the delivery visit) to promote early and exclusive breastfeeding, ensure that the baby is kept warm, weigh the baby, counsel mother on recognition of danger signs to enable rapid referral in case of illness in the newborn.
7.	Counsel on and facilitate family planning measures as appropriate for the couple.
8.	Support the ANM in updating the Maternal and Child Health card, jointly issued by MoHFW & MoWCD.



(List of ASHA competencies is annexed in Annexe 2-D).

or a part of the village. This is referred to as the Village Health and Nutrition Day (VHND), and serves as a platform for the ANM to provide all outreach services such as ANC, PNC, family planning, immunisation, treatment for sick children and making of blood slides in fever cases. Both the AWW and ASHA support the ANM by mobilising those children, pregnant women and sick persons in need of care, to attend the VHND. In VHND, the provision of immunisation and antenatal care is also undertaken. The ASHA should also help to make it a community event, and make a special effort to ensure that women living in hamlets and those from marginalised communities are reached with services.



### 10.2.3. The Village Health and Sanitation Committee (VHSC) and the Panchayati Raj Institutions (PRIs)

The Village Health and Sanitation Committees (VHSCs) are village level bodies comprised of key stakeholders in a village and which serve as a forum for village planning and monitoring. Elected representatives (Members of the PRIs) are generally office bearers of the committee. The main functions of the VHSC and PRI are to ensure that:



- No section of the village community is excluded from these services.
- Service providers are available and are able to alert authorities in case of unscheduled cancellations of the immunisation day/VHND.
- Local transport arrangements are available for pregnant women, especially for those with complications and sick newborn to reach the referral facility, and that in an emergency, this transport is available on a cashless basis with reimbursement later.
- Nutrition supplement and food security programmes reach the pregnant and lactating woman.

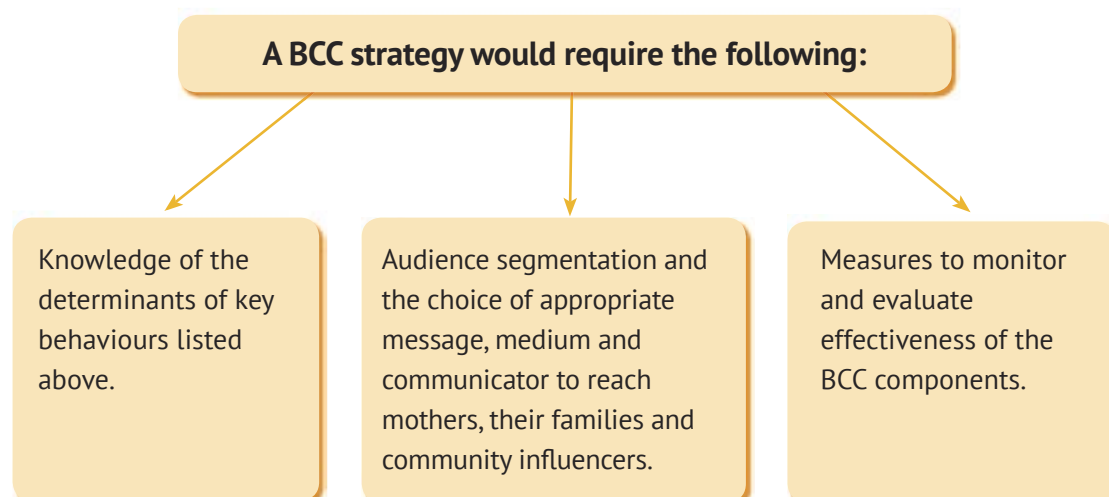
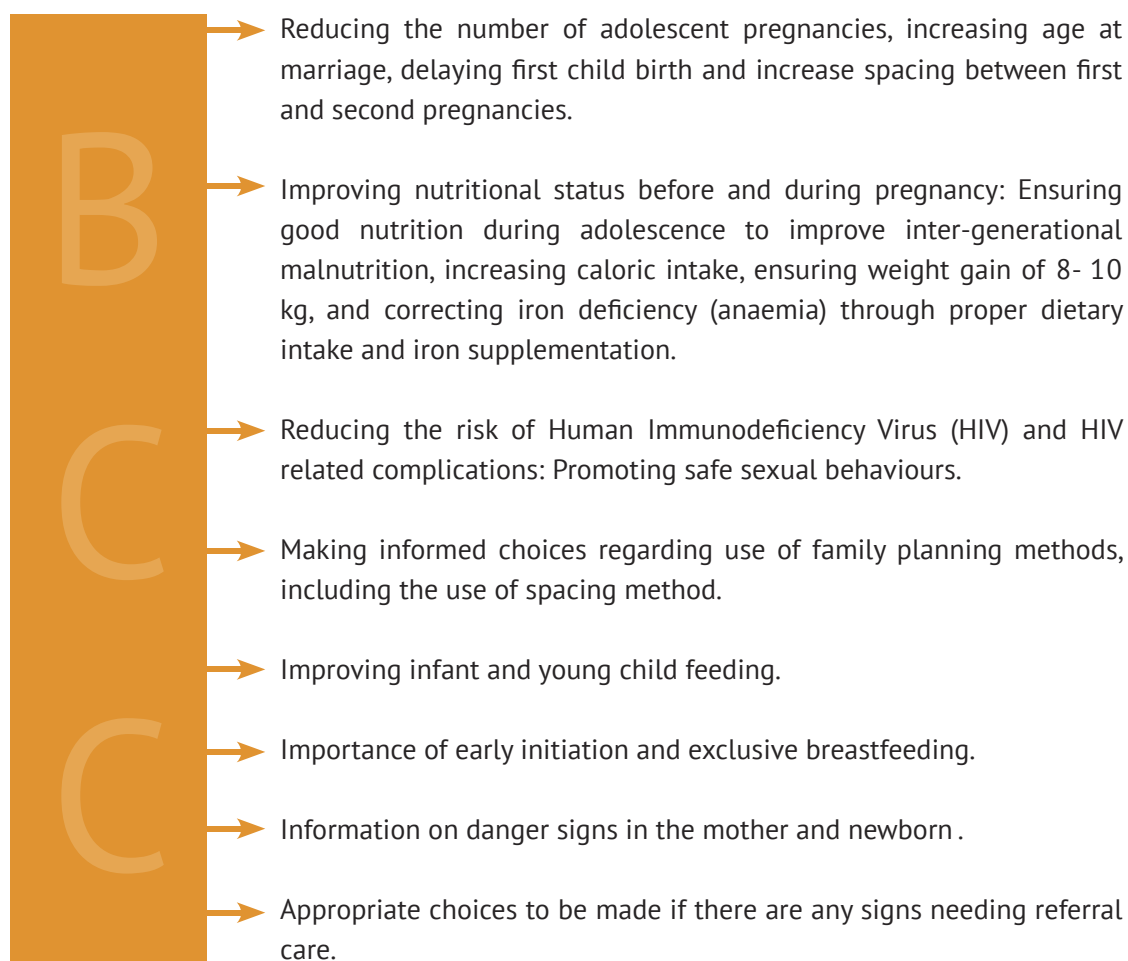
### Focus on the marginalised

There are some pregnant women who are too poor or too marginalised to seek even free care. Often they are single women without male support and perhaps with children to look after. This means that their circumstances are straitened by poverty and pregnancy. Lack of child care also limits their access to the facility. Other vulnerable women could belong to recent migrant communities who are not registered in the Sub-Centre and do not speak the local language. They could also belong to a SC or ST group which has historically been excluded from services. The ASHA and the VHSC must bring the knowledge of such gaps to the PRI and the health department. A substantial part of the problem is in recognising the existence of such marginalised sub-groups within the village.



#### 10.2.4. Behaviour Change Communication (BCC)

Behaviour Change Communication (BCC) is needed to promote positive health practices for maternal and newborn health, and to discourage harmful practices. At the national and state level, this is undertaken through mass media, to build an enabling environment and create societal acceptance for change. Village level interpersonal communication and community mobilisation, are however the major forms of BCC which lead to changed behaviour. Some of the main areas for a BCC strategy to target include:





Janani Suraksha Yojana is a central scheme that provides cash to the pregnant woman from poor and marginalised families, to encourage and empower her to be able to give birth to her child in the safety, comfort and care of an institution. There are costs involved in transport, diet and medical care that poor families have to meet in order to avail of delivery in health facilities. The JSY provides these costs in the form of a cash transfer to such families. The scheme also provides incentives for ASHA to promote institutional delivery and guide and support the pregnant woman to seek appropriate care. The scheme also provides payments for contracting in specialist services in the facilities at Rs. 1500 per case.

The JSY also provides a smaller sum as support for those poor women who opt for home delivery for reasons ranging from lack of access, confidence in institutional delivery services or their own cultural beliefs.

## 11.1. JSY benefit packages at a glance

Place of delivery	Rural		Urban	
	Package for mothers	ASHA package	Package for mothers	ASHA package
Institutional deliveries in				
• Low Performing States	1400	600 (200+250+150)	1000	200
• High Performing States	700	200	600	200
Home deliveries	500	Nil	500	Nil

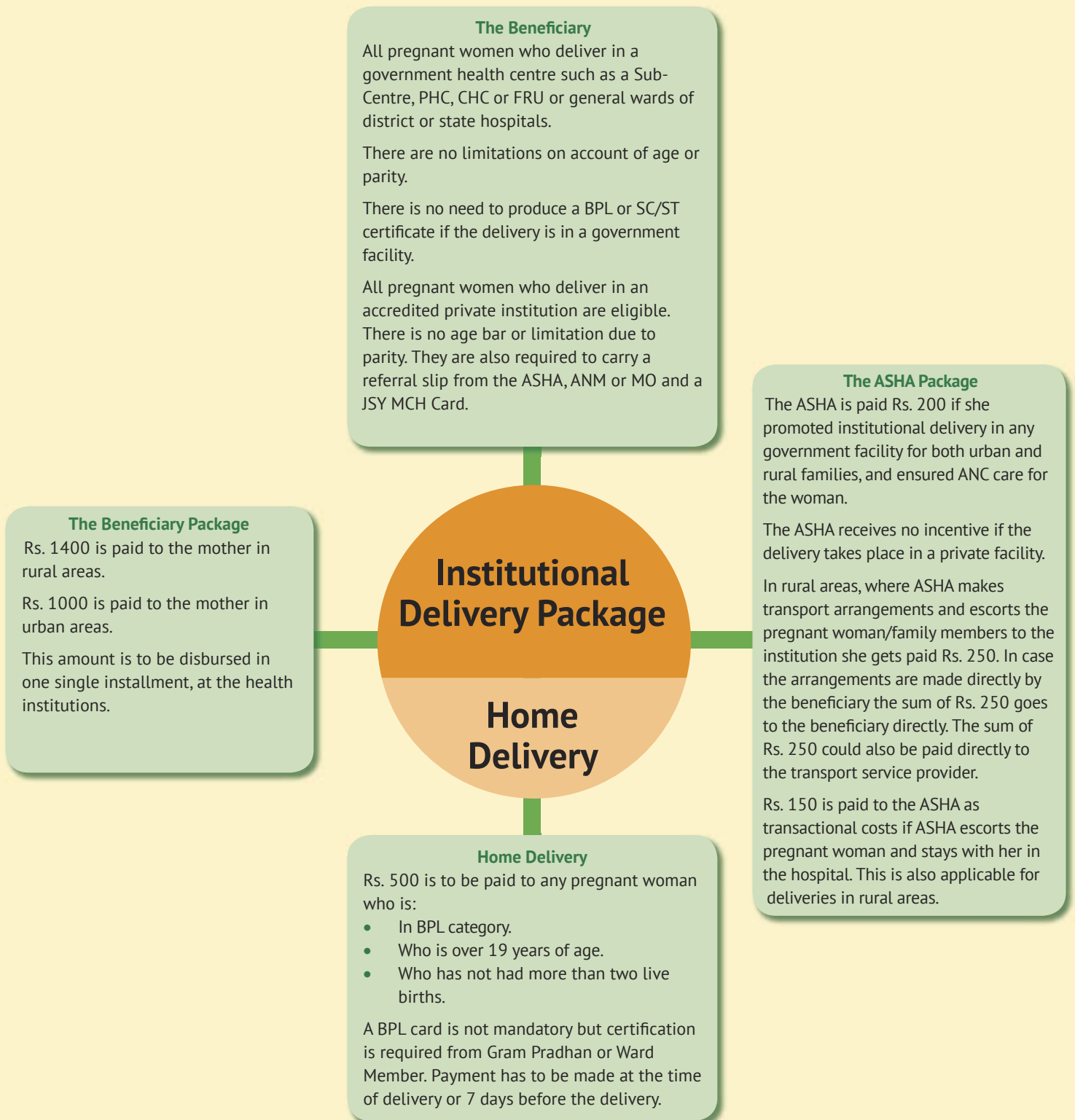
Note: ASHA package is applicable only for deliveries in the public sector.



Rs. 1400 given as incentive for institutional delivery

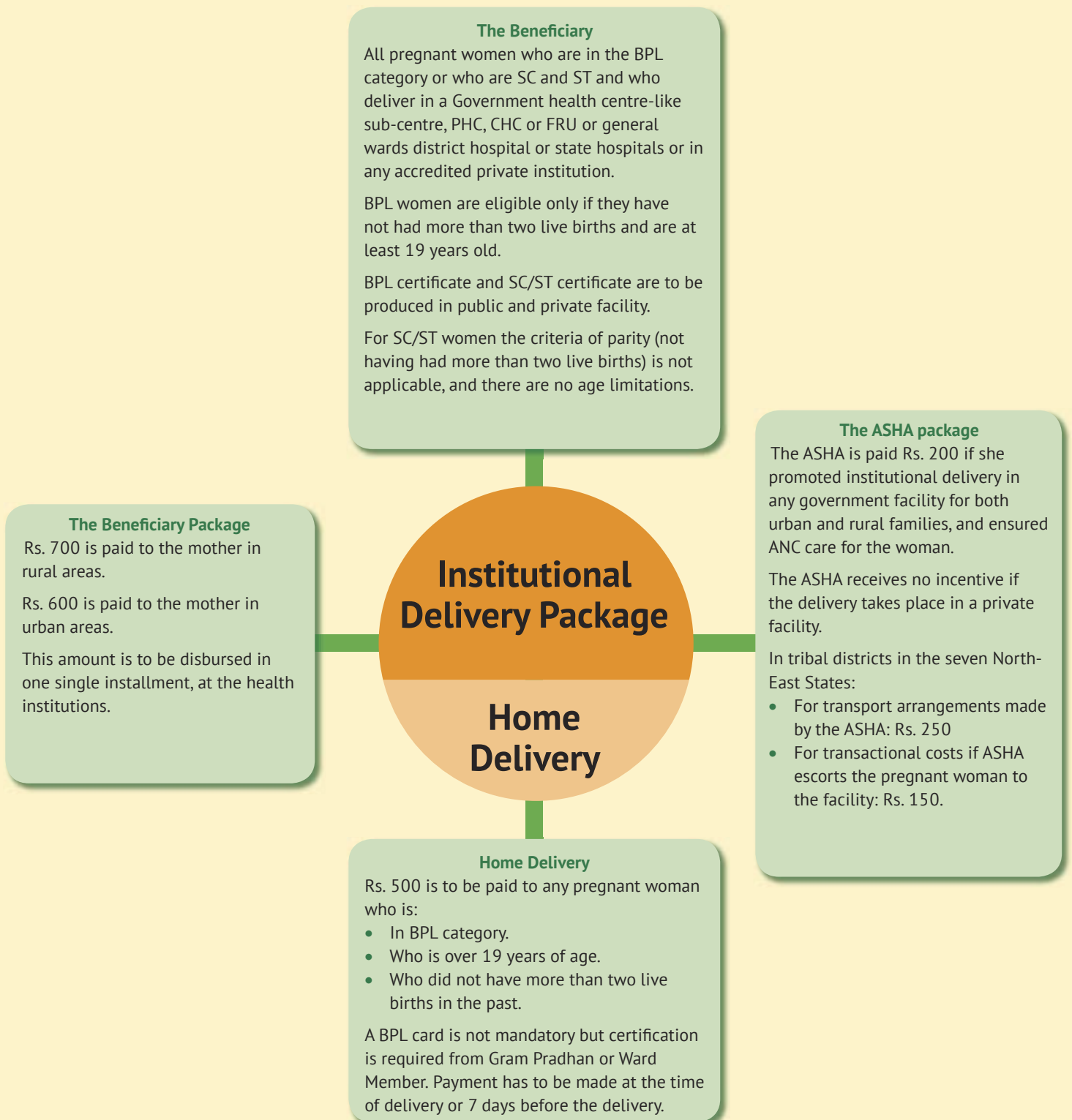
## 11.2. JSY Financial Package for Low Performing States

This includes Assam, Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Orissa, Rajasthan, Uttar Pradesh, Uttarakhand, Jammu and Kashmir.



### 11.3. JSY Financial Package For High Performing States and the seven North- East States

This includes Andhra Pradesh, Goa, Gujarat, Haryana, Himachal Pradesh, Karnataka, Kerala, Maharashtra, Punjab, Tamil Nadu, West Bengal, and the north-eastern states of Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura.



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### Skilled Birth Attendance at Sub-Centre: Equipment, Supplies and Drugs<sup>6</sup>

Suggested list of required furniture, other fittings and sundry articles at the Sub-Centre as per Indian Public Health Standards (can be modified as per the local situation).

#### A. Furniture and Sundry Articles

##### Furniture

Examination table  
Labour table with mattress, pillow and Kelly pad  
Writing table, armless chairs  
Medicine chest  
Wooden/Steel screen, curtains  
Foot stool  
Bedside table  
Revolving stools  
Almirah  
Wooden side rack  
Basin stand

##### Sundry articles

Plastic buckets, basins, mugs  
Lamp/torch/candle and matchbox  
Kerosene stove  
Saucepan with lid  
Mackintosh  
Drum with tap for storing water (where piped water supply is unavailable)  
Dustbin

##### Supplies

Cleaning material (detergent)

##### Linen

Bedsheets  
Towels for mother  
Towels for baby  
Blankets for mother and baby  
Clock

#### B. Equipment and Supplies

##### For Obstetric Care

##### Minor equipment

Blood pressure apparatus with stethoscope  
Weighing machine (adult)  
Weighing machine (baby)  
Inch tape  
Thermometer (oral and rectal)  
Partograph Charts  
Instrument tray with cover (310 x 195 x 63 mm)  
Kidney trays (1 big and 1 small)

Dressing drum  
Cheatle forceps  
Cord cutting scissor (Umbilicus – Blunt )  
Artery forceps  
Surgical scissors, cord-cutting scissors  
Sponge holder  
Foetoscope  
Intravenous stand  
Vaccine carrier  
Ice pack box

##### Supplies

Hypochlorite solution  
Disposable syringes and needles (10 cc, 5 cc and 2 cc)  
Foley urethral catheter  
Intravenous set  
Sponge holding forceps

##### For Newborn Corner

Radiant warmer/200-watt bulb  
Neonatal Ambu bag with face mask  
Oxygen cylinder  
Nasal catheter  
Mucus extractor  
Cord ties

##### For Laboratory Equipment

Haemoglobinometer (Sahle kit) with reagents and lancet  
Dipsticks (for testing urine albumin and sugar)  
Reagents such as sulphuric acid, acetic acid, Benedict solution  
Specimen collection bottle (in case uristix and diastix not available)  
Microscope glass slides (100 in a packet)  
Cover slips (25 in a packet)

##### Supplies

Test-tubes, holder, test-tube stand  
match box, spirit lamp

#### C. Drugs & Supplies

##### Kit A

ORS IP

IFA tablets—large  
Folic acid tablets IP  
IFA tablets—small  
Trimethoprim and sulphamethoxazole tablets IP (paediatric)  
Methylrosanilinium chloride BP (gentian violet crystals)  
Zinc sulphate dispersible tablets USP  
IFA syrup (as per standards provided)  
Water-miscible vitamin concentrate IP (Vitamin A syrup)

##### Kit B

Methylethylergometrine tablets IP  
Misoprostol tablets  
Oxytocin injection  
Paracetamol tablets  
Methylethylergometrine injection  
Albendazole tablets  
Dicyclomine tablets  
Chloramphenicol eye ointment  
Povidone iodine ointment  
Cotton bandage  
Absorbent cotton  
Intravenous fluids (Ringer lactate)

##### Others

##### Drugs

Gentamicin injection  
Magnesium sulphate injection 50%  
Oxytocin injection  
Ampicillin capsules  
Metronidazole tablet  
Misoprostol tablets  
Paracetamol tablets  
ORS  
(Individual drugs to be refilled in kits as required)

#### D. Infection Prevention and Waste Disposal

Sterile gloves  
Plastic apron, caps, masks, shoe cover, eye wear  
Surgical brush for scrubbing  
Boiler/Steriliser  
Autoclave (pressure cooker)

Note: This list of annexures containing equipment, supplies and drugs is not comprehensive. For details, refer to the appropriate GoI guidelines and protocols.

## Home Delivery with Skilled Birth Attendant<sup>6</sup>

### A. Home Delivery Kit

The delivery kit should contain disposable items, as well as supplies and essential drugs required for conducting a home delivery.

**POCKET 1:** Disposable delivery kit (soap; new blade; clean thread; clean sheet; gloves; plastic apron; gauze piece)

**POCKET 2:** Drugs  
Gentamicin injection  
Magnesium sulphate injection 50%  
Oxytocin injection  
Ampicillin capsules  
Metronidazole tablet  
Misoprostol tablets  
Paracetamol tablets  
ORS

**POCKET 3:** Supplies  
Syringes with needle  
(2 ml, 5 ml, 10 ml)  
Needles 22 G  
Intravenous set

Ringer lactate solution, 500 ml  
Adhesive tape  
Blood pressure apparatus with stethoscope  
Foetoscope  
Measuring tape  
Partographs  
Dipsticks for testing sugar and proteins in urine  
Puncture-proof box  
Thermometer  
Spirit, cotton and gauze  
Torch  
Foley's catheter  
Mucus sucker  
Ambu bag and mask  
Mouth gag  
Trash bag

### B. Home Birth Checklist

Clean home  
Clean surfaces in room where woman will give birth  
Light for birth attendant (flashlight)  
Clean gowns for mother  
Sanitary napkins

Bath towels  
Clean sheets  
Plastic sheeting to protect mattress (to be placed under sheets during delivery – can cut up large plastic bags if necessary)  
Disinfectant soap  
Cord clamp/Thread which can be boiled.  
Disposable sterile new blade (to cut the cord)  
Disposable single-use gloves  
One trash can (preferably lined with plastic bags) for trash and/or waste products  
Clean cotton blankets to receive newborn  
Diapers  
Clean clothes for newborn  
If it is cold, a source of heat should be provided so that the newborn is not born into a cold environment. A 200 watt bulb is appropriate. A traditional heating option, which generates minimal smoke, in case there is no electricity, may be used.

## Drugs and Equipment for Institutional Delivery at the 24x7 PHC: The Basic Emergency Obstetric Care Level<sup>12,23</sup>

### A. A fully equipped and operational labour room must have the following:

- A labour table with foam mattress, Macintosh and Kelly's pad
- Shadowless lamp
- Wheel chair
- Cabinet Instrument
- Dressing drum
- Trolley for patients
- Instrument trolley
- Wheel chairs
- I/V Stand
- Suction machine
- Facility for Oxygen administration
- Sterilisation equipment-Autoclave
- 24-hour running water with Infection Prevention equipment and supplies
- Electricity supply with back-up facility (generator with POL)
- Attached toilet facilities
- Emergency drug tray: This must have the following drugs:
  - ◆ Inj. Oxytocin
  - ◆ Inj. Diazepam
  - ◆ Tab. Nifedepine
  - ◆ Inj. Magnesium sulphate
  - ◆ Inj. Lignocaine hydrochloride
  - ◆ Inj. Gentamicin
  - ◆ Sterilised cotton and gauze
  - ◆ Adequate number of gloves
  - ◆ Sterile syringes and needles
  - ◆ Sterile drip/IV sets
- Delivery kits, including those for normal delivery and assisted deliveries (forceps delivery/vacuum delivery, surgical kit)
- Inj. Vitamin K

### B. An area earmarked for newborn care– the Newborn Corner, with facility for temperature maintenance

Open care system: radiant warmer with trolley, drawers, oxygen bottles  
 Resuscitator, hand operated, neonate  
 Weighing scale  
 Pump suction, foot operated  
 IV cannula 24,26G  
 Light examination, mobile 220-12V  
 Extractor mucus, 20ml, sterile, disposable, Dee Lee  
 Towels for drying wrapping baby  
 Tube, feeding  
 Oxygen cylinder  
 Sterile gloves

### C. Instruments and supplies for a pelvic examination

Sim's/Cusco's vaginal speculum  
 Anterior vaginal wall retractor  
 Sterile gloves  
 Sterilised cotton swabs and swab sticks in a jar with lid  
 Kidney tray for keeping used instruments  
 Bowl for antiseptic solution  
 Steel tray with lid to keep sterile/HLD instruments for use  
 Antiseptic solution: Chlorhexidine 1% or Cetrimide 2% (if povidone iodine solution is available, it is preferable to use that)  
 Cheatle forceps with a dry bottle to hold it  
 Proper light source

### D. Instruments/Supplies required for MVA

Sim's vaginal speculum/Cusco's vaginal speculum (small, medium, large)  
 Anterior vaginal wall retractor  
 Sponge holding forceps  
 Volsellum (small toothed)/Allis long forceps  
 MVA syringe and cannulae of sizes 4-8 (two sets; one for back up in case of technical problems)  
 Sterile gloves  
 Steel tray with lid to keep sterile instruments for use  
 Strainer for tissues  
 Sterilised cotton swab  
 Sterile kidney trays (for keeping instruments in case of re-use and for sterile saline or sterile water for flushing in case of blocked cannula)  
 Kidney tray for emptying contents of syringe  
 Bowl for antiseptic solution for soaking cotton swabs  
 Basin with antiseptic solution for washing gloved hand  
 Tray containing chlorine solution for keeping soiled instruments  
 Cheatle forceps with a dry bottle to hold it  
 Proper light source/functional torch  
 Syringe for local anaesthesia (10 ml) and Sterile Needle (22-24 gauge)  
 Local anaesthetic agent (Inj. 1% Lignocaine, for giving para cervical block)  
 Sterile saline/sterile water for flushing cannula in case of blockage

## Equipment and Drugs for Institutional Delivery at FRU: The Comprehensive Emergency Obstetric Care Level<sup>11,13,15,23</sup>

In addition to the equipment available at Level 2+ in the labour room, the following additional equipment, emergency drugs and supplies should be available in the OT and blood storage unit

### Neonatal Stabilisation Unit

Open care system: radiant warmer  
Resuscitator, hand operated  
Laryngoscope set, neonate  
Weighing scales (baby)  
Suction pump, foot operated  
Thermometer  
Light examination, mobile  
Hub cutter  
IV Cannula 24,26 G  
Mucus extractor  
Feeding tube  
Oxygen cylinder  
Sterile gloves  
Suction tube  
Disinfectant, chlorhexidine

### Equipment for Operation Theatre

Diathermy machine  
Dressing drum all sizes  
Lamps shadowless: Ceiling lamp, Portable type  
Steriliser  
Suction Apparatus  
Stand with wheel for single basin  
Table operation, hydraulic: Major, Minor  
Trolley for patients  
Trolley for instruments  
X-ray view box  
Wheel chairs

1. Anaesthesia Equipment for OT*	Standard quantity
Boyle's type Anaesthesia Machine made of stainless steel body with antistatic wheel and facility to lock. ● Two A type cylinders for oxygen and nitrous oxide with pressure reducing valve. ● Pressure gauge to monitor the pressure of gases in cylinders. ● Rota meter with bob in for accurately calculating the flow of gases. ● Two vaporisers: One for Isoflurane and one Fluotech Mark 4 for Halothane ● Soda-lime canister with circle absorber with closed circuit tubings ● Breathing circuit: Magill and Bains two sets of each ● Proper guarantee with spare part coverage	1
Pulse Oximeter	1
Laryngeal Mask Airway -Size 3.0 & 4.0: multiple usage (autoclavable) and disposable size 3.0 & 4.0 for doing infective cases	2 of each size
Pro-seal Laryngeal Mask Airway (autoclavable) Size 3 & 4	2 each
Ambu Bag (Self-inflating bellows-silicon) with Ruben valve, Face mask (anatomical) & oxygen reservoir bag Adult	2
Suction Machine: Electrical operated, heavy duty with 2 bottles of 5 liters capacity each	1
Suction Machine: Foot operated	1
Needle, Spinal, (disposable), Size 22G, 24G and 25G. (Pencil tipped with introducer)	1 each/day
I/V Cannulae – 16G, 18G, 20G, 22G & 24 for neonates	1 each/day
I/V Set plain and blood transfusion set	1 each/day
Anatomical Face Mask- Sizes: 2, 3, 4	1 each
Guedal's Airway – Sizes: 2, 3, 4	1 each
Suction Catheter- Sizes FG. 6,8,10,12,14,16,18	1 each/day
Urinary Catheter	1/day
Stylet for Endotracheal Intubation	1
Laryngoscopes Macintosh curved blade for Adult, Medium, extra-large & straight blade for neonates with spare bulbs and batteries	2
Endotracheal Tubes, internal diameter of 2.5, 3.0, 6.0, 6.5, 7.0, 7.5, 8.0, 8.5 mm	
Magill Forceps Adult and pediatric	1 each



2. OT Surgical Instruments for CEmONC Services	Standard quantity for one patient
<b>A. Cesarean Set (a minimum of at least 2 sets would be needed)</b>	<b>2 Sets</b>
Instrument Tray with cover – Stainless Steel 31 x 19.5 x 6.5cm	1
Towel Clips (Backhaus) 13cm	6
Sponge Holding Forceps (Forester; Straight; serrated) 25cm	4
Artery Forceps Straight – CRILE (Small) 14cm	6
Halstead Mosquito Forceps 12.5cms ( 3 straight, 3 curved)	6
Tissue Forceps 21cm non-toothed	4
Needle Holder (Mayo – Hegar) Straight	2
Surgical Knife Handle (One each of no. 3 and No. 4. No. 3 for blade sizes 10,11,12 & 15 and No. 4 for blade sizes 20, 21, 22, 23	2
Packet Triangular Point Suture Needles 7.3 cms; size 6	1
Packet Round Bodied Needles No. 12; size 6	1
Catgut No. 1-0 (plain)	1 foil
Polyglycolic suture (eg Vicryl) 1-0	2 foils
Polydioxone (PDS) 1-0	1 foil
Nylon 1-0	1
Retractors- Doyens (big and small)	1 each
Operating Scissors, Curved, blunt Pointed, Mayo, 17cm	1
Operating Scissors, Straight, Blunt Pointed, Mayo, 17cm	1
Scissors Straight MAYO Blunt/blunt pointed 23cm	1
Suction Nozzle (small, medium, long)	3
Suction Tube (Yankauer) 23cm long, 23 French Gauze (8mm dia)removable tip and tubing connector	1
Dressing forceps (Tissue) 18cm – one each of toothed (1x2 teeth) and non - toothed	2 sets
Dressing forceps (Tissue) 25cm – one each of toothed (1x2 teeth)	1 set
ALLIS forceps 20cm, 4x5 teeth, multiple ratchets used to grip arteries and digestive tissues	4
BABCOCK forceps 20cm, multiple ratchets used to grip arteries and digestive tissues	2
Uterine Haemostatic forceps (Green Armitage) 21cm	4
<b>B. Hysterectomy Set</b>	<b>1 set</b>
All of the above <b>PLUS:</b>	
Hysterectomy Forceps curved – (one each of HEANEY 23cm; MOYNIHAN 23cm; WERTHEIM 24cm straight toothed and WERTHEIM 25cm non – toothed	4
Right angle retractor	1
Devers retractor	2
<b>A. Emergency Drugs (including neonates) for OT</b>	<b>Standard quantity for one patient</b>
Nefidipine (tablet and capsules both) (5, 10mg)	5 tabs and capsules each
Inj. Labetalol	5 ampoules
Inj. Calcium Gluconate	10ml X 2 ampoules
Inj. Magnesium sulphate	0.5 gm X 10 ampoules
Inj. Oxytocin	10 Ampoules
Inj. Dextrose (25%)	2 ampoules
Inj. Dextrose (10%) (2ml/kg)-neonates	2 ampoules
Inj. Adrenaline 1:10,000 sol (for neonates (0.01-0.03mg/kg)	2 ampoules
Inj. Naloxone 0.4mg/ml ( for neonates (0.1-0.2 mg/kg)	1 ampoule
Inj. Adrenaline	2 ampoules
Inj. Aminophyline	2 ampoules
Inj. Atropine sulphate	4 ampoules
Inj. Chlorpheniramine	2 ampoules
Inj. Diazepam 5mg/ml	2 ampoules
Inj. Chlorpheniramine	2 ampoules
Inj. Mephentermine	1 vial
Inj. Ephedrine	2 ampoules

A. Emergency Drugs (including neonates) for OT	Standard quantity for one patient
Inj. Oxytocin 10 units/ml 1ml/ampou	2 ampoules
Inj. Ergometrine maleate	2 ampoules
Misoprostol 200 ug	3 tablets
Inj. Furosemide	1 ampoules
Inj. Hydrocortisone 100mg/ml	100ml 2 vial
Inj. Dexamethasone	2 ampoules
Inj. Pentazocine	2 ampoule
Inj. Diclofenac	4 ampoule
Halothane	20-50ml
Isoflurane	20-50ml
Inj. Lignocaine hydrochloride, 2ml ampoule, 5% heavy	1 ampoule
Inj. Lignocaine hydrochloride, 2ml ampoule, 2%, 30ml vial	1 vial
Inj. Bupivacaine hydrochloride 0.5% 20ml vial	1 vial
Inj. Bupivacaine hydrochloride 0.5% heavy for spinal 4ml ampoule	1 ampoules
Inj. Suxamethonium hydrochloride	1 vial for 5 patients
Inj. Atracurium	2 ampoules
Inj. Vecuronium bromide 4mg/amp	2 ampoules
Inj. Neostigmine Methyl sulphate 0.5mg/ml 1ml/amp	5 ampoules
Inj. Thiopentone sodium	1 vial for 3 patients
Inj. Propofol	2 ampoules
Inj. Ketamine 50mg/ml	1 vial
Inj. Dopamine	2 ampoules
Inj. Normal saline	10 ml x 2 ampoules
Inj. Promethazine hydrochloride 25mg/ml, 2ml/ampoule	1 ampoule
Inj. Ampicillin sodium 250mg/ml 5ml/vial	2 vials
Inj. Gentamycin sulphate 40mg/ml, 2ml/vial/amp	2 ampoules
Inj. Cloxacillin sodium 250mg/vial	8 vials
Inj. Metronidazole 5mg/ml 100ml/bottle	4 bottles
Salbutamol Inhaler	1
Inj. Insulin 40 units/ml, 10ml vial	1 vial

#### 4. Infection Prevention for OT

##### Infection Prevention Equipment & Supplies for OT

- Autoclave (horizontal) with electricity or heat source
- Autoclave drum
- Autoclave tape
- Boiler with heat source or electricity

#### 5. Equipment and Supplies for Blood Storage Unit

##### Equipment

- Blood bag refrigerators having a storage capacity of 50 units of blood.
- Deep freezers for freezing ice packs (available with Immunisation Programme).
- Insulated carrier boxes with ice packs (used for cold chain).
- Microscope and centrifuge (available at all laboratories in FRUs).

##### Consumables

- Pasteur pipette, glass tubes, glass slides, test tube racks, rubber teats, gloves disposable rubber gloves

##### Reagents

- All the reagents - Anti-A, Anti-B, Anti-AB, Anti-D (Blend of IgM, IgG), Antihuman Globulin (Polyclonal IgG & Complement) should come from the Mother Blood Bank.

##### Disinfectants

- Bleach & Hypochlorite Solution

\* All equipment, drugs, supplies for anaesthesia from "Maternal Health Division, MoHFW/AIIMS. Life Saving Anaesthesia Skills for Emergency Obstetric Care. Guidelines for Trainers" (except details of Boyle's machine)

## Equipment, Drugs and Supplies for the Sick Newborn Care Unit at the District Hospital<sup>10</sup>

### A. Furniture and General Equipment

Electronic weighing scale  
 Infantometer  
 Emergency drugs trolley  
 Procedure trolley  
 Refrigerator  
 Spot lamp  
 Portable x-ray machine  
 Basic surgical instruments  
 Nebuliser  
 Multi-channel monitor with non-invasive BP monitor  
 Room Thermometer  
 Generator (15 KVA)

### B. Equipment and Supplies for Individual Patient Care

#### Equipment

Servo-controlled Radiant Warmer  
 Low-Reading Digital Thermometer (centigrade scale)  
 Neonatal Stethoscope  
 Neonatal Resuscitation Kit (oxygen reservoir, masks, Neonatal laryngoscope)  
 Suction Machine  
 Oxygen Hood

Non stretchable measuring tape  
 Infusion pump or syringe pump  
 Pulse Oxymeter  
 Double Outlet Oxygen Concentrator  
 Double Sided Blue Light  
 Phototherapy  
 Flux meter  
 CFL Phototherapy  
 Horizontal Laminar Flow  
 Window AC (1.5)/Split AC  
 Central AC

#### Supplies

Cord clamp  
 Dee Lee's Mucus Trap  
 Neoflon (intravenous catheter) 24G  
 Micro drip set with & without burette  
 Blood Transfusion Set  
 3 way stop cock  
 Suction Catheters  
 Endotracheal Tubes  
 Feeding Tubes  
 Chemical disinfectants  
 Glucostix and multistix strips (in container)  
 Capillary Tubes for microhaematocrit (in containers)  
 Normal saline, 10% Dextrose infusion bottle

### C. Emergency Drugs

Adrenaline (1:10000) (inj)  
 Naloxone (inj)  
 Sodium Bicarbonate (inj)  
 Aminophylline (inj)  
 Phenobarbitone (inj)  
 Hydrocortisone (inj)  
 5%,10%, 25% Dextrose  
 Normal saline  
 Ampicillin with Cloxacillin (inj)  
 Ampicillin (inj)  
 Cefotaxime (inj)  
 Gentamycin (inj)

### D. Equipment for Disinfection of Sick Newborn Care Unit

Electric heater/boiler  
 Washing machine with dryer (separate)  
 Electronic fumigator  
 Vacuum Cleaner  
 Vertical Autoclave  
 Autoclave drums (large, medium & small sizes)  
 Disinfectant Sprayer  
 Container for liquid disinfectant  
 Formalin Vaporiser  
 Hot Air Oven  
 Ethylene oxide (ETO) Steriliser

## Core Competencies of Skilled Birth Attendants<sup>5,21</sup>

- Identify illnesses and conditions detrimental to health during pregnancy, perform first-line management (including performance of life-saving procedures when needed) and make arrangements for effective referral.
- Provide advice and assist in the development of a micro birth plan.
- Provide advice on diet, rest, post-partum family planning and birth spacing, prevention of sexually transmitted infections including HIV.
- Perform vaginal examination, every four hours to check progressive labour.
- Identify the onset of labour; monitor maternal and fetal well-being during labour and provide supportive care.
- Monitor maternal and foetal well-being on a partograph and identify maternal and foetal distress and take appropriate action, including referral when required.
- Identify delayed progress in labour and take appropriate action, including referral where appropriate.
- Manage a normal vaginal delivery. Manage first degree of vaginal tears.
- Manage the third stage of labour actively – injectable oxytocics, controlled traction on cord, uterine massage.
- Assess the newborn at birth and provide essential newborn care - provision of warmth, cord care and prevention of infection, early initiation of breastfeeding.
- Identify any life threatening conditions in the newborn and take life-saving measures, identify, where necessary, perform active resuscitation as a component of the management of birth asphyxia, and referral where appropriate.
- Identify haemorrhage, sepsis and hypertension in labour, provide first-line management (including use of oxytocics, antibiotics and parenteral anti-convulsants e.g. magnesium sulphate, where needed as stabilisation preceding referral) and if required, make an effective referral.
- Provide postnatal care to women and their newborn infants and post-abortion where necessary.
- Assist women and their newborns in initiating and establishing exclusive breastfeeding, including educating women and their families and other helpers in maintaining successful breastfeeding.
- Identify illnesses and conditions detrimental to the health of women and/or their newborns in the postnatal period, apply first-line management (including the performance of life-saving procedures when needed) and if required, make arrangements for effective referral. This would include parenteral antibiotics. (Not yet approved).
- Digitally remove retained products of conception, when seen at the vulva, prior to referral.
- Ensure observance of standard precautions to prevent infection and appropriate waste segregation and disposal.

## Core Competencies of Skilled Birth Attendants Providing Institutional Care at 24x7 PHCs at Level 2 (BEmONC)<sup>9</sup>

The first 17 functions are core competencies of all SBAs. In 24X7 PHCs providing Level 2 care, some SBAs would be trained to a higher level of competence to provide the additional BEmONC services given below. These categories of health professionals currently include Medical Officers and in the future, Staff Nurses who have received training as nurse practitioners.

- Treatment of moderate and severe anaemia in pregnancy.
- Treatment of bleeding in the antenatal period and post-partum
- Treatment of hypertensive disorders in pregnancy:
- Treatment of sepsis.
- Treatment of abortions.
- Infection prevention.
- Use vacuum extraction in vaginal deliveries.
- Managing vaginal tears.
- Perform manual vacuum aspiration for the management of incomplete abortion.
- Removal of a retained placenta (associated with bleeding).
- Management of the sick and low birth weight newborn – including management of birth asphyxia, sepsis and low birth weight.
- Management of neonatal sepsis including with injectable antibiotics.
- Ensure implementation of standard precautions for infection prevention.
- Ensure proper waste disposal systems are in place as per IMEP Guidelines.

## Core Competencies of Skilled Birth Attendants Providing Institutional Care at FRUs at Level 3 (CEmONC)

The FRU provides skilled attendance by specialists. This is the apex institution for managing and providing 24 hour comprehensive care for major pregnancy related complications in the mother and the newborn. In addition to BEmOC services provided at the 24X7 PHC, this facility must be able to provide safe surgery and blood transfusion. For every 100 women who become pregnant, 5-15 will need surgery for complications. It is mandatory that this facility has an obstetrician/or a non-specialist MBBS doctor who has received Emergency Obstetric Care (EmOC) training, an anaesthetist or an MBBS doctor who has received training in Life Saving Anaesthesia (LSAS) skills, a paediatrician or an MO trained in newborn care for the “Stabilisation Unit” to provide higher level of newborn care skills.

- In an institution providing institutional delivery at the FRU

level, the skilled birth attendants would have the following additional skills to manage and provide comprehensive care for all major life threatening complications in the mother and the newborn:

- ◆ Diagnose maternal emergencies, provide appropriate medical treatment as well as surgical, and perform assisted vaginal delivery, manual removal of a retained placenta, Caesarean Section.
- ◆ Provide medical management at the secondary care level for all complications in pregnancy and childbirth in the mother – haemorrhage, seizures, sepsis, abortion complications, prolonged obstructed labour.
- ◆ Provide initial care and stabilisation of sick newborns not requiring intensive care, support mothers to breastfeed and provide breastfeeding support, referral services.
- ◆ Diagnose and provide initial care and stabilisation of sick newborns, care of low birth weight newborns not requiring intensive care, breastfeeding and feeding support to mothers, and referral.
- ◆ Cross match blood and provide blood transfusion services.
- ◆ Ensure implementation of standard precautions for infection prevention.
- ◆ Ensure proper waste disposal systems are in place as per IMEP Guidelines.

## Competencies to be Developed in ASHA after 20 Days of Training

Competencies	Knowledge required	Skill required
<b>General Competencies</b>	<ul style="list-style-type: none"> <li>● Knowledge about qualities that need to be inculcated to successfully work as ASHA</li> <li>● Knowledge about village and its dynamics</li> <li>● Clear understanding of role and responsibilities</li> <li>● Understanding of who are the marginalised and the specific role in ensuring that they are included in health services</li> </ul>	<ul style="list-style-type: none"> <li>● Conducting a village level meeting</li> <li>● Communication skills – especially interpersonal communication and communication to small groups</li> <li>● Skill of maintaining diary, register and drug kit stock card.</li> <li>● Tracking beneficiaries and updating MCH/ Immunisation card.</li> </ul>
<b>Maternal Care</b>	<ul style="list-style-type: none"> <li>● Key components of antenatal care and identification of high risk mothers</li> <li>● Complications in pregnancy that require referral</li> <li>● Detection and basic management of anaemia</li> <li>● Facility within reach, provider availability, arrangement for transport, escort and payment</li> <li>● Understanding labour processes (helps to understand and plan for safe delivery)</li> <li>● In malaria endemic areas, identify malaria in ANC and refer appropriately</li> <li>● Understanding obstetric emergencies and readiness for emergencies including referral</li> </ul>	<ul style="list-style-type: none"> <li>● Diagnosing pregnancy using Nishchay kit</li> <li>● Determining the Last Menstrual Period (LMP) and calculating Expected Date of Delivery (EDD)</li> <li>● Tracking pregnant women and ensuring updated Maternal Health Cards for all eligible women</li> <li>● Developing birth preparedness plans for the pregnant woman.</li> <li>● Screening of pregnant woman for problems and danger signs and referral</li> <li>● Imparting a package of health education with key messages for pregnant women</li> <li>● Attend and observe delivery and record various events</li> <li>● Recording pregnancy outcomes as abortion, live births, still birth or newborn death)</li> <li>● Recording the time of birth in Hrs, Min and Seconds, using digital wrist watch</li> </ul>
<b>Home Based Newborn Care</b>	<ul style="list-style-type: none"> <li>● Components of essential newborn care</li> <li>● Importance of early and exclusive breastfeeding</li> <li>● Common problem of initiating and maintaining breastfeeding which can be managed at home</li> <li>● Signs of ill health or a risk in a newborn</li> </ul>	<ul style="list-style-type: none"> <li>● Provide normal care at birth (dry and wrap the baby, keep baby warm and initiate breastfeeding)</li> <li>● Observation of baby at birth and 30 seconds for breathing and crying</li> <li>● Identify birth asphyxia (for home deliveries) and manage with mucus extractor</li> <li>● Conduct examination of new born for specific abnormalities.</li> <li>● Provide care of eyes and umbilicus</li> <li>● Measure newborn temperature</li> <li>● Weigh newborn and assess if baby is normal or low birth weight</li> <li>● Provide assistance for initiating breastfeeding and counsel for exclusive breastfeeding</li> <li>● Ability to identify hypothermia and hyperthermia in newborns</li> <li>● Keep newborns warm</li> </ul>

Competencies	Knowledge required	Skill required
<b>Sick Newborn Care</b>	<ul style="list-style-type: none"> <li>● Knowledge of risks of pre-term and low birth weight.</li> <li>● Knowledge of referral of sick newborns – when and where?</li> </ul>	<ul style="list-style-type: none"> <li>● Identify low birth weight and pre-term babies.</li> <li>● Care for LBW, pre-term babies</li> <li>● Manage breastfeeding problems and support breastfeeding of LBW/Pre-term babies</li> <li>● Identification of signs of sepsis and symptomatic management.</li> <li>● Diagnose newborn sepsis and manage it with cotrimoxazole</li> </ul>



