MODULES ON MATERNAL, NEWBORN AND CHILD HEALTH: ONE TO NINE

- The framework of the nine modules is simple
- They each follow a three-stage route: objective, design and delivery of training, and learning outcomes
- While each module differs in the design and delivery of the training in terms of the number of training units/sessions and methods of training, the pathway is essentially the same
- This has been consciously done for easy comprehension and use by practitioners

See chapter on 'Using the toolkit to transform the performance of programme managers from within' for details on how to use the toolkit

MODULE ONE

VISIONING EXERCISES AT THE DISTRICT/BLOCK LEVELS AND THE FUNCTIONING OF QUALITY ASSURANCE CELLS AT THE STATE, REGIONAL, DISTRICT AND BLOCK LEVELS

Length of training: 2.5 hours

Number of facilitators required: 13 (as this module is more protracted than the others, some facilitators could take two to three sessions; to keep up interest and energy levels of the programme managers; but it is important to ensure that facilitators do not conduct two continuous sessions)

Module objectives

- tapping the huge untapped potential of programme managers to decipher the complexities of the local health systems, and then apply this understanding to design and evaluate interventions that improve health and health equity
- providing a conceptual understanding of 'visioning' for programme managers (to shape an individual vision that builds into a larger team vision and then into an integrated overall all-inclusive vision for all involved stakeholders) to take the lead in planning for better outcomes at the block and district levels
- undertaking detailed, meticulous visioning exercises for programme managers at the block and district level (that lays the foundation of a work culture focused on results) by involving an **understanding of objectives; developing a standard template** on how to plan a visioning workshop at the block and district level; and **providing an operational framework** to organise visioning exercises at block and district level that is inclusive of all stakeholders – the idea is to infuse these plans with managerial skills to design solutions to system problems
- teaching managers how to work as a team with all stakeholders to cohere synergy
- extending intense training on processes of data collection, analysis and utilisation that lies at the core of district/black envisioning and determines its success

- training participants to chart a realistic work plan (using the comprehensive suite of tools, approaches and data extended) for the forthcoming year of operation with focused outcomes
- understanding issues and challenges to quality assurance; and the structure and function of the Quality Assurance Committees at different levels of health governance

Suggested issues for training capsule

The training capsule could address these issues in the order given below:

- it can begin by connecting a set of shared beliefs, expectations, goals and values to a framework as this is what ***'visioning'*** is about
- arrive at a definition of envisioning; and its importance **(*it is an absolute pre-requisite and the non-negotiable starting point to determine objectives and the development of strategies to achieve them)***
- describe principles and intensive processes involved
- make apparent the urgent need for visioning exercises at the district level; its processes and all stakeholders who should be involved (establishing a clear understanding of their roles and responsibilities and fixing accountability)
- list details on how the district programme managers can make preparations prior to the workshop, implement the activities on the day of the workshop and address follow ups required
- make apparent the urgent need for visioning exercises at the block level; the processes and stakeholders who should be involved (establishing a clear understanding of their roles and responsibilities and fixing accountability)
- list details on how the block programme managers can make preparations prior to the workshop, implement the activities on the day of the workshop and address follow ups required of them
- familiarisation with nuanced modes of data collection and analysis – insights to be given on: the framework of SWOT analysis; 16 indicators of RMNCH+A needed for envisioning at their level; exhaustive facility and outreach checklists; checklist on block profile; and the indicator list (that forms the base for the district vision action plan)

- highlight the paramount importance of quality in healthcare; its definition, principles and components; and
- the structure and function of the Quality Assurance Cells at the regional, district and block levels

Suggested model for design and delivery of training sessions

Time	Session	Objective	Methodology	Facilitator/s	Training Aids
	Registration	Registration of participants	Signature of each of the participants obtained	One	Registration list
20 mins	Rope game in a large open space that allows room for participants to link hands and move around freely	To illuminate the validity of the district and block visioning exercises	Game and participatory discussions to understand and firm up rationale of vision building	One	A rope 30 meters in length Black cotton strips to blindfold each participant, 5 meters in length Handouts for each participant Diagram of vision building
5 mins	Outlining purposes of this module	To affirm expectations of the participants and lay down the components this module will address	Participatory, open discussions	One	Chart paper spiral Colour markers – red, green, blue, black (5 each) White board and duster

25 mins	Undertaking envisioning exercises; underlining their importance; starting the process of visioning exercises for the block	To understand the visioning exercise and its importance	Participatory, open discussions and PPT	One	LCD screen and projector White board Chart paper and marker
15 mins	Preparation for effective district/block visioning	To understand the preparatory work and follow-ups of district and block visioning	PPT, open discussions	One	LCD screen and projector White board Chart paper and marker
10 mins	Laying down objectives of work station and brief presentation on BTSP	To introduce training, share objectives and BTSP programme details	PPT and participatory, open discussions	One	LCD screen and projector
20 mins	16 RMNCH+A indicators; discussion on facilities and outreach	To understand the importance of the 16 indicators of RMNCH+A To understand contribution of the outreach and facility components within each	PPT, participatory, open discussions	Two	LCD screen and projector Handouts to know your block Handouts of 16 indicators of of RMNCH+A

		indicator for effective implementation			
10 min	Need to strengthen facility	To understand importance of facility strengthening	PPT, participatory, open discussions	Two	LCD screen and projector Handouts with block familiarisation details
20 Mins	Preparing roadmap for the next six months	To understand the nitty gritties of the preparation of Action Plan at block level	Practicum	Two	LCD screen and projector White board Chart paper and marker Handouts for making roadmap
20 mins	Quality Assurance Cells at different levels	To understand issues of quality and structure and functions of Quality Assurance Cells at different levels	Discussions and PPT	One	LCD screen and projector White board Chart paper and marker
5 mins	Session wind up and closure		Discussions	One	

Suggested training process

1

Forge the first connection with your audience; inaugurate the training of this very first module with two simple games that carry a powerful message '*every plan starts with a vision*' (20 mins)

This is perhaps among the most intense of modules. As it would set the tone for the rest of the modules, it would make eminent sense to start on a fun-filled note that helps the team articulate and understand the idea of a shared vision while having fun.

Use a game to come a full circle

After registering the participants and welcoming them to this very first module, direct the participants into a large, airy open space. Ask participants to form a circle and link hands. Make them move around in a circle; first slowly, then swiftly. The idea is to break their sense of restraint. And, also to demonstrate what it means to arrive at a full circle through envisioning.

After these merry, light hearted movements in the ice-breaker session, lead them into a game. Ask eight volunteers from the participant group to step forward. Encourage them to form the inner circle, while the other, larger group of participants remain standing on the outer circle. Hand the volunteers long, black strips of cloth and ask them to blindfold the participants on the outer circle. Ask the participants on the outer ring to identify the volunteers by touching their faces. Once again, allow for light hearted banter.

A rope, a blindfold and square peg in a circle

This done, the volunteers hand them a long rope, 30 metres in length. The volunteers then ensure that all the participants standing on the outer circle hold the rope. They are asked to identify what they are holding. Then the blindfolded participants are expected to form a square using the rope. Expectedly, the identification of volunteers will be wrong and the square will never get made.

Provoke the participants into thinking on this and understanding that working without a vision on district and block planning is like taking useless detours that mislead you from your objectives.

Question them closely on what goes wrong when implementation is undertaken without a vision. Their answers may range from: lack of strategic direction and clarity; one-sided decision making; working at cross-purposes; and lack of control over the processes. An easy link between 'envisioning plans with a vision' as opposed to 'planning without a vision' gets established. This can be further co-related to their efforts in block and district envisioning exercises minus a vision.

The message that should come across is: *pursuing goals need a vision, coordinated efforts, aggressive problem solving, long term commitment and firm resolve.*

2

Juxtapose objectives of the training against participant expectations (5 mins)

Once inside the training venue, the facilitator leads the session. S/he affirms the expectations of the participants from this module by encouraging participants to speak up. Then s/he in turn lays down the components this module will address. A balance between expectations and what is being delivered needs to be established.

3

Spell out definition, principles and primacy of district and block level visioning exercises (25 mins)

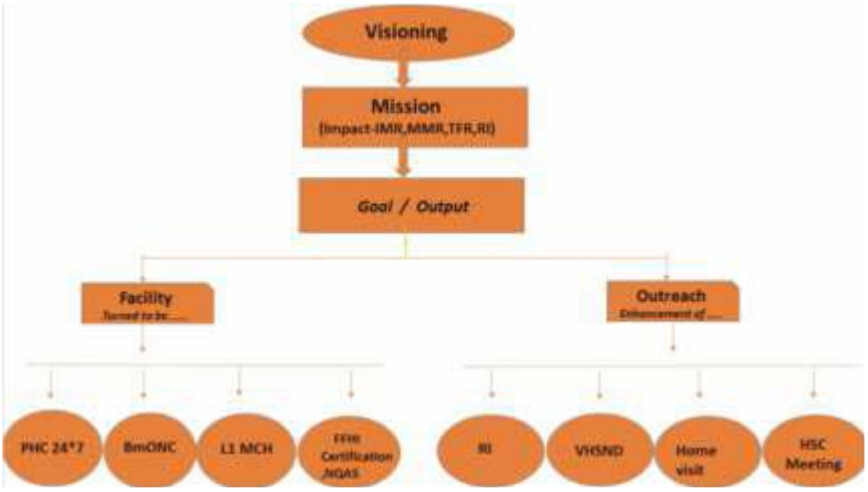
Why is there a need for district and block level visioning exercises and workshops? What is the role of the programme managers in this process?

This hugely interactive component will lend clarity to the definition, essential principles, processes, systems, modalities, formats and checklists for the preparation of a district and block visioning plans by providing an overview.

Each participant is asked to define 'visioning' using one word. A PPT explains the definition at length.

It has been long recognised that for optimal outcomes in maternal, newborn and child health, the entry point is visioning and planning at the bottom levels of the pyramid - the district and block. This is so as there is extensive focus on local variations and realities in district planning processes, otherwise ignored. The shift is thus from a vertical planning process to a horizontal one.

Envisioning in this context would mean formulating a vision based on strong empirical grounding (through rigourous analysis, compilation and management of baseline data); analysing data to set priorities; defining process of pre, during and post district/block envisioning workshops; adherence to indicators to better implementation; ensuring intensive participation of all stakeholders, common goals and firm institutional support of the government; and the setting up and monitoring of targets. Such a vision would lead to a convergence of objectives and consolidation of gains.



Recommended powerpoint presentations for use: 3-Block Visioning n Know ur block, (please attach from Visioning Work Station folder)

4

Get into the details of processes involved in the district and block level visioning exercises (15 mins)

Grounding de-centralised, participatory planning processes from the grassroots level upwards is a multi-dimensional initiative that demands a clearly organised sequence of processes to arrive at a meaningful plan.

Underscore the extensive preparatory work, logistics and coordination that go into both the envisioning of district and block workshops using PPTs and an open discussion format.

Flesh out the **preparatory processes** (identifying stakeholders; collecting district and block level data; fixing venue, date, issues for attention based on data analysis, logistics, and agenda in conjunction with the Medical Officer Incharge (MOIC) and Block Health Manager (BHM); and sending out invite letters to all stakeholders); t**he during workshop modalities** (preparatory work for the event; refreshments; ensuring speaker PPT presentations on data analysis and outreach and facility assessment and implementation process; and the taking of decisions for implementation based on this) and the **follow ups required post the workshop**.

Envisioning is a process of constructive collaboration. It means building a cogent plan through a face-to-face, consultative back and forth process of strategic negotiations and adjustments where a set of priorities and an action plan is arrived at. Each one of the various stakeholders who are to be involved will be identified. Participants should be asked to identify the stakeholders they deal with at the: facility level; FHWs; district and block officials and development partners.

Lay emphasis in the session on the fact that by pulling in the initiatives by different stakeholders (who do not trespass on each other's territory yet work together) and ensuring accountability and clarity of responsibility, the outcomes are redoubled.

And, as the government plays a key role in planning, place emphasis on how the BTSB can invigourate the government's undertakings and also narrow the distance between the government and development partners' aspirations. Use this section to also push for the idea of a centralised vision and mission so that there will be uniformity in effort and movement towards common goals.

Achieving results pivots on data gathering, analysis and its utilisation to derive results. Information and indicators collected must be aligned with programme

goals and strategies for clear benchmarks and results. This is why a focus on data collating and analysis becomes a central, crucial, and indispensable part of this module. It holds the potent seeds of future success. Make participants pursue the checklists for the visioning exercise; visioning MIS and planners provided in the Checklist and MIS booklet. (*see appendix*)

In short, ensure that the participants understand the frame … that the entire process of such systems thinking involves an unbroken chain of efforts: convening stakeholders; determining indicators; consensus on common goals; choosing methods; outlining outcomes; selecting design and adaptation.

Show mock agendas as a way to set a template for organising such workshops so that the various components that go into them are clearly understood and incorporated.

Recommended powerpoint presentations for use: 6 District visioning exercise/8 Block visioning exercise Ram Gopal (please attach from Visioning Work Station folder)

5

Train on SWOT processes and centre stage the significance of BTSB (10 mins)

Teach participants the SWOT analysis though PPT using a format of the SWOT analysis framework. Take them through its four components and invoke the relevance of this in district and block envisioning.

While the training units laid out before this focus on the deep-diving processes of envisioning of district and block plans in their minutest detail; here the spotlight is on how the algorithm of SWOT analysis in block planning can sharpen outcomes of the health and ICDS programmes under the BTSB which in turn can amplify the results of the government.

Recommended powerpoint presentation for use: 1- BTSB Jagriti (please attach from Visioning Work Station folder)

6

Make plain the contribution of outreach and facility to improve the 16 indicators of the RMNCH+A strategy (20 mins)

This unit of training is taken ahead by distributing a handout of on the contribution of outreach and facility to improve the 16 indicators of the RMNCH+A strategy *(see appendix)* and sifting through each one of them to understand how to make use of them.

File: 4-6 indicators of RMNCH word; **(please attach from Visioning Work Station folder)**

7

Shine the searchlight on the importance of improving facilities (10 mins)

Kick start this unit by making the participants understand the role of the health facility in saving a mother's life. Give a handout of a detailed format of a block profile to each participant. Its columns capture the details of each and every health personnel and the numbers of various facilities at the block level. Sensitise the participants to each column and urge them to use this as a crucial part of their block envisioning exercises. Invest time in making them fill some columns to understand how to go about it.*(see appendix)*

Remind them again of all the facility and outreach checklists and MIS included in the checklist and MIS booklet. Ask them to scrutinise them, one by one.

The booklet includes facility checklist, facility MIS; outreach checklists (ANM checklist; ANM meeting MIS; HSC checklist, HSC meeting MIS; RI/VHSND checklist; RI/VHSND meeting MIS and home visit); family planning checklist; block dashboard for RMNCHN + 1, and 2 and HSC wise monthly dashboard.(*see appendix)*

Underline quality improvement measures that block managers can take. They include: calling for an all-staff meeting at the hospital for specific and overall improvements; highlighting best practices for replication; promoting self-assessment by hospital staff; encouraging the use of the gap analysis tool; ensuring monitoring and follow ups; and addressing solutions at three-levels: clinical, management and infrastructure.

Recommended powerpoint presentation for use: 3-why facility strengthening and Qi process, (please attach from Visioning Work Station folder)

8

Roll out a practicum to chalk a roadmap for the next six months (20 mins)

Move the needle effectively. Set the stage for a detailed, practical and hands-on approach to aid participants develop an action plan for a district/block envisioning exercise based on an exhaustive checklist of indicators.

Hand out the checklist that outlines the stages of a life cycle of women in their reproductive age to develop an action plan for a district/block. Give them time and help, if needed.

The life cycle stages included are: reproductive age, pregnancy care, child birth and postnatal and newborn care. Each of these categories are further sub-divided into several areas that are to be monitored. Then, once again, each of these areas are further juxtaposed against indicators that are to be plotted at baseline and upon reaching the goal. Timelines for doing this and the health personnel responsible for this are to be filled.

When they finish understanding this, get them involved in the process of 'stock taking'. Display all checklists, MIS and indicators and allow for an understanding of all the processes involved in district/block envisioning exercises.

This will lay the ground for an inside look and for a new frame for the entire practice of developing an action plan for a district/block. They will now be clearer about objectives, strategies and operating approaches, and focused outcomes that should be an inherent part of an action plan.

Recommended powerpoint presentations for use: 2-16 indicators; and 5- how to prepare roadmap; (please attach from Visioning Work Station folder)

9

Interpret issues of quality assurance (QA) in health care and Quality Assurance Cells at various levels (20 mins)

Quality assurance involves several activities: streamlining structures, staff teamwork and client perspectives; determining quality indicators and applying them at all facilities; empowering clients to demand quality; increasing evidence-base for quality improvement measures; harmonising QA systems; evolving

governance platforms for adaptation; fixing gaps and conducting evaluations on 'cell' model effectiveness.

In this session, give the participants a basic understanding on quality of care and structure and function of Quality Assurance Cell at the state, regional, district and block level.

They should be also given an overview of the facility level quality improvement committee/team and their roles. Their responsibilities include: meeting once every month; conducting a self-assessment of the facility using self-assessment tool (FAT software by CARE); developing a comprehensive action plan for the facility; developing a quarterly action plan for the PHC/Sub district hospital (SDH)/RH for quality improvement interventions; monitoring quality improvement; and tracking progress based on identified quality indicators at each level.

Discuss the role of the block manager while preparing for a QI meeting. The responsibilities include: fixing a date for the meeting with consensus of team member and giving prior information to district team; preparing an agenda after discussing with MOIC, BHM and other key members; highlighting gaps in staff performance and outreach facilities; reviewing progress of earlier meetings; raising issues regarding the ANM weekly meeting, ASHA *dewas* and joint meeting with ICDS; and taking initiative towards the facility certification processes.

Such learnings will enable programme managers to implement learnings in their programme area and add value to the BTSP process.

Recommended powerpoint presentations for use: 4 QAC (please attach from Visioning Work Station folder)

10

Concluding session (5 mins)

A recap of all important issues discussed.

Suggested posters for display

- Vision, mission, goals, output of district/block envisioning
- Format of block profile
- Logistics for block envisioning
- Diagrammatic representation for facility assessment and certification process
- Draft agenda for visioning workshop
- Mock SWOT analysis framework
- 16 indicators of RMNCH +A
- Process of self driven improvement
- Quality Assurance Cell hierarchy at regional, district and block levels

Suggested handouts

- Block profile: Know Your Block
- 16 indicators of RMNCH +A
- Indicators to chalk a vision for a block

Technical manual

PDF FILE

MODULE TWO

HEALTH FACILITY IMPROVEMENT, MANAGEMENT OF NORMAL AND COMPLICATED DELIVERY; USE OF SURGICAL INSTRUMENTS, MEDICAL EQUIPMENT AND ESSENTIAL DRUGS

Length of training: 2.5 hours

Number of facilitators required: 4-5

Module objectives

- building capacity of programme managers (**in conjunction with module three that follows**) to improve continuity and quality of antenatal, obstetric and neonatal services at the block and district health facilities; paying special attention to the period from conception to 42 days of delivery
- allowing programme managers to understand the principles underlying provision of such care for mothers and children
- alerting them to the package of facility-based services to be made available to beneficiaries: keeping the five 'w's' -- what, where, when, why and who -- in mind
- familiarising them with key strategies to improve provision of care for mothers and children by being attentive to issues of timely availability, access, quality, equity, risk mitigation measures, and the integration of antenatal care with obstetrics, postnatal care and also perinatal referral services

- fostering knowledge on ways to improve human resources (ensuring skilled birth attendants, for instance, as the first step and supervisors at the next step to ensure quality and skills, among other measures), infrastructure (ensuring facility preparedness to ensure institutional deliveries at basic or comprehensive levels to cite is one example), equipment, medicines and supplies needed for obstetric and newborn care
- enabling a comprehension of processes that lend impetus to the process of timely and quality routine and emergency obstetric and newborn care; and those that embed effective quality assurance mechanisms
- enabling them to work on methods to improve staff capabilities; review and update of healthcare management systems; adherence to protocols and guidelines; and also work on risk mitigation measures through early and effective involvement of all stakeholders

Suggested issues for training capsule

The training capsule could address these issues in the order given below:

- familiarisation of the anatomy and physiology of female reproductive system; the inner and outer layers
- understanding the process of conception and arriving at estimated date of delivery
- definition of normal labour; the four stages of normal labour with a focus on active management of the third stage of labour; and seven cleans to be ensured for normal delivery
- focusing on the critical perinatal period as the probability of mortality increases during this period
- understanding why women die during childbirth (direct and indirect causes); the three-delays
- alerting to the most common occurring complications during the process of labour and its management (post-partum hemorrhage; pregnancy-induced hypertension; eclampsia)
- identification of high risk pregnancy factors

- postnatal care of mothers and essential newborn care (focus on breastfeeding, cord care, assessment of mother and baby in the first 24 hours)
- preparedness of facilities for timely routine and emergency obstetric and newborn care (Basic Emergency Obstetric Care (BEmOC) and Comprehensive Emergency Obstetric Care (CEmOC)
- key strategies to improve provision of care for mothers and children by being attentive to issues of timely availability, access, quality, equity, risk mitigation measures, and the integration of antenatal care with obstetrics, post natal care and also perinatal referral services
- working on methods to improve staff capabilities; review and update of healthcare management systems; adherence to protocols and guidelines; and reducing risks through early and effective involvement of all stakeholders
- familiarisation with all medical equipments and surgical instruments and essential drugs: understanding of each and every surgical instruments (the seven-tray principle) and medical equipment; and essential medicines
- establishing preparedness of facilities at level one (HSC/non 24x7 PHC); level two (24x7 PHC, non FRU, CHC) and level three (FRU, PHC, SDH and DH)
- underlining the importance of pre-referral treatment (facility based management of complications before referral) in reducing maternal mortality and morbidity

Suggested model for design and delivery of training sessions

Time	**Session**	**Objective**	**Methodology**	**Facilitator/s**	**Training Aids**
	Registration	Registration of participants	Signature of each of the participants obtained	One	Registration list
45 mins	Overview of female	Understanding the processes of	PPT, practicum and open	Two or three facilitators	Overhead projector

	anatomy, reproductive system; normal delivery; identification of complications and its management	normal delivery; the danger signs; reasons for high risk pregnancy; postnatal care of mother and newborn; postpartum hemorrhage; pregnancy-induced hypertension; eclampsia; and instilling management principles to improve access and quality of services	discussion	can divide the subjects for facilitation	White board and marker Film on delivery Paper and pens for participants to draw the female reproductive system
15 mins	Level 1, Level 2, Level 3 facilities -- basic functional criteria	Evaluating essential components for creating new infrastructure in labour room at these levels	PPT and open discussion	One	Overhead projector
1 hour	Demonstration of essential equipment and instruments used in maternal and newborn care; and explaining the name and nature of essential	Understanding usage of instruments and equipment and the need to ensure their availability in the labour room; newborn care centre and operation theatre; and knowing details	PPT, open discussion and practicum	One	Overhead projector, a lineup of all surgical and medical instruments on tables; a poster on the list of essential drugs

	drugs	of essential drugs room, according to service provision			
30 mins	Question and Answer session and wrap up	Answering queries and a quick recap of issues			

Suggested training process

1

Provide an overview of female anatomy, reproductive system; normal delivery; identification of complications in labour and its management (45 minutes)

Open the session with a participative discussion on the worrisome maternal mortality rate that stands high in the state at 219 whereas the MDG goals for 2017 stand at 119. Of critical concern is the Census 2011 figures that put Bihar's Total Fertility Rate (TFR) at 3.9 (the highest in the country as opposed to the national average of 2.62) and its decadal growth at 25.07% (as against the national average of 17.64%).

a) Proceed to make the definitions of the terms given below clear

***Maternal Mortality Ratio*:** Refers to the number of women who die as a result of complications of pregnancy or childbearing in a given year per 100,000 live births in that year.

***Maternal Mortality Rate*:** is defined as the number of maternal deaths to women in the ages 15-49 per lakh of women in that age group.

***Life Time Risk*:** Life time risk is defined as the probability that, one women of reproductive age (15-49) will die due to child birth or puerperium assuming that chance of death is uniformly distributed across the entire reproductive span.

b) Explain the three delays responsible for maternal deaths

They are: delay in recognising complications and seeking skilled care; delay in reaching the health care facility; and delay in receiving care at the facility.

c) Raise the issue of direct and indirect causes of maternal deaths

- **Direct causes of maternal deaths**

Health complications at delivery - hemorrhage, eclampsia, sepsis, hypertension, infections, anemia, obstructed labour and toxemia – directly result in maternal deaths. Many pregnant women also die due to malaria, TB, hepatitis and anemia.

- **Indirect causes of maternal deaths**

Several studies in India show that women's inability to survive childbirth is linked to socio-economic reasons. Indirectly contributing to their deaths are: lack of education, poverty, malnutrition, poor health, high levels of anemia, young age at marriage and delivery, lack of awareness or access to contraception, repeated pregnancies in quick succession, unsafe abortions, domestic violence, absence of health care and emergency obstetric care, low level of institutional deliveries, low provision of iron and folic tablets and irregular antenatal checkups.

d) Display the diagram of the female reproductive system

Involve the programme managers in an activity. Ask the participants to replicate the diagram on a piece of paper. This will break the tedium of PPT and discussions.

e) Explain the process of conception and pregnancy

After this activity, explain the process of conception, the concept of pregnancy, duration of normal labour, the process of calculating the expected date of delivery (using the process of nine months and seven days after the last day after the last menstrual cycle) and the four stages of normal delivery.

f) Show an animated 3D video of a normal delivery

g) Place emphasis on the active management of the third stage of labour (AMTSL)

First step: administration of injection Oxytocin (10 IU) within 1 minute of delivery

Second step: controlled cord traction (CCT)

Third step: massage uterus after placental expulsion

h) Emphasise seven cleans to be ensured for normal delivery and newborn care

1. Clean hands of care provider (thoroughly washed with soap and water)

2. Clean delivery surface (clean and airy room clean bed)

3. Clean cord cutting instrument (new blade/sterilised scissor)

4. Clean cord care (use of sterilised thread to tie the cord)

5. Clean water for delivery

6. Clean perineum (use of sanitary napkin or clean cotton cloth)

7. Clean cloth to dry and wrap the baby

i) **Discuss postnatal care of mother and baby, procedures for assessment of baby, exclusive breastfeeding and cord care**

Assessment of the baby

The newborn should be referred for further evaluation if any of the following danger signs is present:

- has stopped feeding
- is excessively sleepy/has no spontaneous movement
- is cold to touch (Temp <36.5 ^{0}C)
- suffers hyperthermia (Temp >37.4 ^{0}C)
- has difficulty in breathing <30 or >60 per minute
- has erratic heart rate: <100 or >160 per minute
- displays redness of umbilical cord or has a discharge from it
- has pustules over skin
- suffers convulsion, and is
- diagnosed with jaundice within first 24 hours

Explain the need for regular assessment of mother within the first 24 hours. Identify the danger signs as:

- vaginal bleeding
- uterine contractions
- high body temperature
- erratic heart rate/pulse rate

- blood pressure

Emphasise the need for counselling on nutrition, personal hygiene and birth spacing and family planning.

j) Elaborate on the ten essential steps for newborn care

10 Steps of Essential Newborn Care

1. Call out the time of birth
2. Deliver the baby onto mother's abdomen
3. Dry the baby's head and body
4. Assess breathing and resuscitate if needed
5. Clamp and cut the cord
6. Start Skin-To-Skin care
7. Initiate breastfeeding
8. Clean the eyes
9. Administer vitamin-K
10. Weigh and label the baby

k) Underscore identification and management of complications as key steps

For management of PPH, list these steps as key

- shout for help: mobilise all available health personnel
- evaluate vital signs: pulse, BP, respiration rate and temperature
- establish IV line (draw blood for blood grouping, Rh-typing and cross matching and catheterize the bladder)
- start rapid infusion of 1 liter of ringer lactate/normal saline by intra venous route with 16 gauge needle rapidly in15-20 minutes
- massage the uterus until it is hard and give 10 IU of Oxytocin IM
- give oxygen @ 6-8 liters per minute by mask

- monitor vital signs and blood loss (every 15 minutes) and monitor fluid intake and urinary output

Check to see if placenta has been expelled:

- if placenta is retained/not delivered: Inj Oxytocin 20 IU in 500 ml of RL @40-60 drops per minute and refer to FRU*.
- if placenta is completely delivered, feel the consistency of uterus per abdomen. If uterus is contracted and firm: Look for tears/lacerations, and pack in vagina and refer to FRU.
- if uterus is soft and flabby (Atonic PPH): Inj Oxytocin 20 IU in 500 ml of RL @40-60 drops per minute.

For management of eclampsia, list these steps as key:

Pre-eclampsia

- the cure for pre-eclampsia (and eclampsia) is the delivery of the fetus and placenta in optimum time (> 37 weeks)
- antihypertensive drugs have limited role in controlling BP. Antihypertensive agents can be used when BP reaches at 160/110 mm Hg (**Nifedipine** 5 mg under the tongue/orally **OR Labetalol** 10 mg IV **OR Hydralazine** 5 mg IV/IM can be started)
- prevent complication like eclampsia (if convulsion starts even at 140/90 mm of hg of blood pressure magnesium sulphate may be administered)

Eclampsia

- prevent onset of convulsion if BP reaches at 160/110 mm hg by administering magnesium sulphate
- arrest convulsions by magnesium sulphate
- expedite delivery of baby as early as possible
- magnesium sulphate is the drug of choice (loading dose- 4gm IV over 3-5 min followed by 10 gm. Deep IM (5 gm. In each buttock)
- maintenance dose – 5 gm. IM 4 hourly in alternate buttock until 24 hours after last convulsion or delivery
- do not leave the woman on her own: call for help

- place woman into the left lateral position
- maintain airway at all times and give oxygen

- ringer lactate - 1 litre in 6-8 hours; (30 drops per minute)

l) Highlight the critically of strengthening facilities and staff competencies using management principles

Programme managers need to be actively involved in strengthening facilities and the capacities of staff working with them to improve continuity and quality of obstetric and neonatal services at the block and district health facilities. They need to be attentive to issues of timely availability, access, quality, equity, risk mitigation measures, and the integration of antenatal care with obstetrics, postnatal care and also perinatal referral services. Ensuring the adherence to protocols and quality assurance mechanisms is an important function.

They must first work on strengthening facilities that extend delivery services and then set their sights on co-opting those who do not. Health facilities can be classified as Basic Emergency Obstetric Care (BEmOC) and Comprehensive Emergency Obstetric Care (CEmOC) depending on the level of 'signal' services they perform. Managers need understand the numbers of facilities in each category within their districts or blocks; their caseloads; the level of efficiency of these facilities; and the number of pregnant women seeking services to arrive at an improvement plan. They must work toward fully operationalising them and ensuring the availability of a critical link: referral transport.

They must ensure planned interventions to keep the supply of medicines, equipment and instruments unbroken.

2. Extend understanding L1, L2, L3 basic functionality criteria (15 minutes)

Public health facilities are categorised into L1, L2 and L3 on the basis of their performance, caseload, functions, number of beds and geographical location.

Extend an understanding of them through this second session. It is vital for public health programme managers who wish to improve services. They need to be aware of how many such facilities fall in their areas, their state of readiness, and ways to improve services.

Some facilities operate at a level lower than their own. Managers will be confronted by issues on how to facilitate processes to improve their performance. It is important to tell them that they will also have ensure linkages between these facilities; grapple with how to upgrade performance levels; and perform vulnerability mapping exercises to identify areas not being served by any of these facilities.

	Level 1 (SC/non 24x7 PHC)	Level 2 (24x7 PHC/non-FRU CHC)	Level 3 (FRU CHC/SDH/DH)
Basic Function	• Normal delivery; initial management & referral in case of complications • Essential New Born Care	• Normal delivery; BEmOC including signal functions and referral in case of complications requiring CEmOC • Care of the sick newborn and referral after stabilization • Management or referral of HIV positive mother and newborn	• Normal delivery, CEmOC services including comprehensive signal functions, management of complications, C–section and referral of complications to tertiary level care where required. • Care of sick newborn including Kangroo Mother Care • Management of HIV positive mother and newborn
Beds (Minimum)	2–6	6–30	30 or more
Geographic Area	Cluster of 5–8 villages	Sector or block	Block or district
Criterion	Minimum 3 normal deliveries per month	Minimum 10 deliveries per month including management of complications	Minimum 20–50 deliveries per month including CS

Labour Room Services for L1, L2 & L3

Essential components for creating new infrastructure	Level 1	Level 2	Level 3
Labour Room	• As per the number of delivery tables envisaged. Each delivery table and medicine trolley will require at least 10x10 ft space • Windows with smoked glass, well lighted, draught-free environment, interior tiling of walls and floor • Labor table (min 2) with mackintosh, Kellys pad and buckets • Stepping stool for every labor table; light for conducting deliveries; • 6 trays as mentioned in the table • NBCC • Equipment for autoclave/ sterilization • Wall clock	Same as in Level 1, plus the following: • Size of LR as per the case load and number of Labor tables, changing area and buffer zone, utility room, attached hand washing area and toilet • Air conditioning • NBCC with adequate number of radiant warmer as per case load	Same as in Level 2, plus the following: • Stainless steel top labour table with foam mattress, sheet and pillow as per case load (Min 4) • Central supply of oxygen/oxygen concentrator and suction facility • Air conditioning, functional telephone connection, ultrasound machine, foetal monitor, pulse oxymetre, etc

Population Wise Number of Facility Calculation (L1, L2, L3)

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

3) Foster understanding of the use of all surgical and medical instruments in the labour room, newborn care corner (NBCC) and operation theatre; and the role of essential drugs according to service provision (one hour)

A surgical instrument is a specially designed tool for performing specific actions during surgery. How does one ensure that the right surgical instrument is there in the right hand at the right time? This is a challenge that health service providers and managers grapple with alike. How do managers ensure the presence of all these instruments and equipment at all times?

To allow for an understanding of what surgical instrument is used for what procedure, and to tackle the issues listed above, a practical demonstration of surgical instruments is best.

a) **Arrange the seven trays required for delivery with surgical instruments required for each**

The seven trays are: delivery tray, episiotomy tray, IUCD tray, Manual Vacuum Aspiration (MVA)/Electrical Vacuum Aspiration (EVA) tray, baby tray, medicine tray and emergency drug tray.

Organise a reward-based game around it. Ask the managers to identify surgical instruments and their roles. Award a prize to every correct answer. Below are samples of some of the trays.

1. Delivery Tray

1. Artery forceps-curved: 2
2. Cord-cutting scissor-curved (135mm):1
3. Sponge holding forceps: 1
4. Sim's Vaginal Speculum
5. Bowl for antiseptic lotion
6. Stainless steel kidney tray: 1
7. Stainless steel tray with cover: 1
8. Gauze pieces, cotton swabs
9. Sanitary pad
10. Gloves: 2 pairs

2. Episiotomy Tray

all contents of delivery tray, plus

1. Episiotomy scissor-angular (145mm): 1
2. Needle (round body & cutting): 1
3. Needle holder: -1
4. Chromic catgut-size 0
5. Dissecting forceps-standard (toothed-145mm): 1
6. Dissecting forceps-standard (nontoothed-145mm): 1
7. Suture cutting scissor: 1

3. IUCD Tray

1. Cusco's and/or Sims' Speculum-1
2. Volsellum-1
3. Uterine sound-1
4. Sponge holding forceps-1
5. Anterior vaginal wall retractor-1
6. Thread cutting scissor-1
7. Straight artery forceps-1
8. Kelly's forceps/long placental forceps (used for PPIUCD insertion)

4. Manual Vacuum Aspiration (MVA) / Electrical Vacuum Aspiration (EVA) tray

1. Gloves- 1pair
2. Speculum-1
3. Anterior vaginal wall retractor-1
4. Posterior vaginal wall retractor-1
5. Sponge holding forceps-1
6. MVA syringe-1
7. Medical Termination of Pregnancy (MTP) cannulas-multiple
8. Urinary catheter-1
9. Small bowl of antiseptic lotion-1
10. Sterilised gauze/pads

5. Baby tray

- Two pre-warmed towels/sheets for wrapping the baby
- Cotton swabs
- Mucus extractor- 1
- Sterilised thread for cord/cord clamp
- Inj. Vitamin K
- Needle and syringe
- Bag and mask/Ambu bag
- Nasogastric tube and gloves

Baby should be received in a pre-warmed towel

Medicine tray

Medicine	**Use in**
Inj.Oxytocin 5IU/10IU	AMTSL
Tab.Misoprostol 200mcg	AMTSL
Inj.Magnesium sulphate(MgSO4)	Pre-Eclampsia & Eclampsia
Inj.Xylocaine	During Episiotomy for Anaesthesia purpose
Inj.Vit K	For new born
Inj.Calcium Gluconate	Antedote for Mag-Sulph(Pre-Eclampsia & Eclamsia)

Emergency Drug Tray

Medicine	**Use in**
IV Fluids	For Management of PPH
Inj.Carboprost	For PPH
Inj.Atropine Sulphate	For Hypovolemic Shock
Tab Nifedipine	For Pre-eclampsia
Inj.Diazepam	For Eclampsia
Inj.Dopamine	To increase mean arterial pressure in septic shock (hypotension)
Inj.Dexamethasone	For mother of pre-terms
Inj.Betamethasone	For mother of pre-terms
Inj.Labetalol	For Pregnancy Induced Hypertension
Inj.Epinephrine	For Anaphylaxis
Inj.Hydrocortisone	For Anaphylaxis
Inj.Adrenaline	For Anaphylaxis
Tab Inj Frusemide	As diuretics

b) **Display the undermentioned surgical instruments on a table. Spend time to explain the use of each surgical instrument to the programme managers in the sequence that it is used in the delivery process.**

The surgical instruments to be arranged are: artery forceps, cord cutting scissor, sponge holding forceps, Sims' speculum, Allis tissue forceps, episiotomy scissor, needle holder, surgical needles, dissecting forceps (toothed and plain), stitch cutting scissor, Cusco's speculum, uterine sound, Volsellum, Babcock's forceps, ring forceps, MVA syringe-1 with MTP cannulas, and surgical blades.

c) **Use the below mentioned medical equipment for similar display and explanation**

Include foetoscope, foetal Doppler; radiant warmer; mucus sucker; suction machine, oxygen concentrator, catheters of different kinds; Ambu bag/bag and mask, cord clamp, endotracheal tube with laryngoscope, nasogastric tube, and autoclave machine

d) **A lesson on essential drugs needed can be reinforced by a second look at the medicine and essential drugs trays**

Recommended powerpoint presentation for use: Module one revised 25 August

Suggested posters for display

- Seven cleans for normal delivery
- Active management of third stage of labour
- Management of postpartum hemorrhage and eclampsia
- Surgical instruments for delivery
- List of essential drugs

Suggested handouts

On L1, L2 and L3 facilities

Technical manual

PDF format

MODULE THREE

HEALTH FACILITY IMPROVEMENT, INFECTION MANAGEMENT, ENVIRONMENT PROTECTION, ORGANISATION OF LABOUR ROOM AND OPERATION THEATRE

Length of training: 2.5 hours

Number of facilitators required: 7 (ideally)

Module objectives:

- underlining methods and guidelines on infection control to enable programme managers apply scientific and management expertise to address preventable deaths of women from complications of pregnancy and childbirth
- harnessing the strengths of programme managers to expand the use of current solutions in infection control and develop new ones to ensure that mothers and newborns stay healthy
- focusing on infrastructure considerations (that include space, design, power, water, hygiene and sanitation and equipment and drug requirements), also called environmental management practices that should be integrated with basic essential primary care services, to enable programme managers deliver safe services by being responsive to maternal and newborn needs in their planning; addressing barriers; and realigning health with care by strengthening systems through innovations
- building capacity of programme managers (**in conjunction with the previous module two**) to improve continuity and quality of antenatal, obstetric and neonatal services at the block and district health facilities; addressing gaps; and paying special attention to the period from conception to 42 days of delivery
- fostering a knowledge on ways to improve human resources (ensuring skilled birth attendants, for instance, as the first step and supervisors at the next step to ensure quality and skills, among other measures), infrastructure (ensuring facility preparedness to ensure institutional

deliveries at basic or comprehensive levels to cite is one example), equipment, medicines and supplies needed for obstetric and newborn care

- enabling a comprehension of processes that lend impetus to the process of timely and quality routine and emergency obstetric and new born care; and those that embed effective quality assurance mechanisms
- enabling them to work on methods to improve staff capabilities; review and update of healthcare management systems; adherence to protocols and guidelines; and also work on risk mitigation measures through early and effective involvement of all stakeholders
- ***Suggested issues for training capsule***

The training capsule could address these issues in the order given below:

- concept, importance and methods of infection control
- include information on investments in standard and additional precautions to stem breaches in infection control practices: the types and steps of hand washing (medical and surgical); the use of different types of personnel protective equipment (apron, mask, gowns, hub cutter, colour coded bins, puncture proof containers, sterilised gloves and eye googles) and processes to undertake while using them; instrument processing after use (the steps and methods involved); sterilisation (using autoclaving, chemical methods and electric boiler); high level bio medical waste management (collection, segregation and disposal); fumigation process of labour room and operation theatre; and the need for certification
- lend understanding of how the physical environment impinges on the working and efficiency of the health care providers. Effective, low-cost interventions exist, but they need to be brought into practice. A start can be made by improving the use of existing resources – by learning important lessons in delivering more with less. Information should be focused on how programme managers can help in reorganising the existing space in the health centre and considering important renovations and refurbishments
- pay specific attention to organising the labour room, NBCC and operation theatre in systematic and planned way with all the essential equipment and drugs in a functional state (this should be sub-divided to include

requirements within the technical, operational, tool and job aids and monitoring and assessments parameters)

- technical aspects should address requirements for the examination corner; labour room; NBCC and service station and look at tools that technologies that can better service provision and abate dangers
- operation aspects should systematically address methods of improvements that programme managers can spur in the areas of -- organsing labour room and NBCC; availability of instruments and drugs; infection control; maintaining registers; identifying gaps (using Facility Assessment Tool (FAT); improving staff capabilities; fixing staff accountability; review and update of healthcare management systems; adherence to protocols and guidelines; use of tools to measure and assess data; and also work on risk mitigation measures through early and effective involvement of all stakeholders
- emphasis should be placed on monitoring and assessment: the various process and outcome indicators for the organisation of labour room must be highlighted

Suggested model for design and delivery of training sessions

Sl No.	**Session**	**Content**	**Methodology and resources needed**	**Duration**	**Number of Facilitator/s**
1	Overview of quality improvements needed in infection control and organisation of labour room; NBCC, service station and operation theatre	Explain the quality improvements needed in infection control and organisation of the labour room; NBCC; service station and operation theatre (in the technical and operational areas) and highlight how they will be brought out through role play and the recreation of a PHC set up for maternal and childcare	A talk to explain the issues tackled in this section and how the recreation of a PHC (with an ANC room; labour room; NBCC, and operation theatre) and role play will help ingrain an understanding of issues	5 mins	One

2	An enactment of the crucial role/s that health programme managers can play within facilities; especially in the area of re-organisation of labour room in conjunction with the MOIC	The block manager influences and persuades the MOIC to realign the labour room arrangements to enable quality, woman-focussed care	Explanation of session by facilitator quickly and role play Resource: labour room with as many the essential items that go into its making (listed in table at the beginning of the module)	5 mins	Facilitator to explain session: One Actors : Two Playing the roles of block manager and the MOIC
3	Infection control	The importance of personal protective equipment and a step-by-step instruction on how to prepare hypochlorite solution demonstrated through role play	Explanation of session by facilitator quickly and role play Resource: mask, gloves, one litre water, plastic tub, bleaching powder, tablespoon	10 minutes	Facilitator to explain session: One Actor: One Playing the role of a staff attendant
4	ANC room; its functions and processes and registration of pregnant women	Demonstration through role play of: registration process and organisation of the observation corner; ANC checkup process, and adherence to ANC protocols and documentation	Explanation of session by facilitator quickly and role play	15 minutes	Facilitator to explain session: One Actors: Two Playing the roles of an ANM and expectant mother

5	Labour room set - up and the process of normal delivery	Organisation of labour room and demonstration of normal delivery (three stages) through the use of mannequins and an actor	Explanation of session by facilitator on how to ensure a well set-up labour room; role play by actors and the use of mannequin to show delivery process	30 minutes	Facilitator to explain session: One Actors : Three Playing the roles of ANM 1, ANM 2 and expectant mother
6	Demonstration of neonatal resuscitation(baby not crying)	Showing the processes of -- drying, stimulating, immediate cord cutting, transfer to radiant warmer, positioning, re-stimulation, using positive pressure and ventilation (ambu bag) on a baby; displayed by the use of a neonatal mannequin. ANM 1 and 2 will demonstrate the process of neonatal resuscitation in mannequins	Explanation of session by facilitator quickly and role play	10 minutes	Facilitator to explain session: One Actors: Two Playing the roles of an ANM1 and ANM2
8.	Demonstration of decontamination, cleaning and sterilisation	Processing of instruments, packaging autoclaving, chemical sterilisations and storage shown through role play	Explanation of session by facilitator quickly and role play the process	10 minutes	Facilitator to explain session: One Actors: One Playing the role of staff attendant
9	Video on how to organise the	Video explains zoning, swab test, basic	Video plays and trainer explains the	12 minutes	One

	operation theatre	organisation	key points		
10	***Sikhey baton baton mein***-quiz with a difference	15 questions are posed to the programme managers; prizes awarded to those giving right answers	Quiz	10 minutes	Two
11	Wrap up session	Core messages repeated	All trainers	5 minutes	
12	Observations on a mood-0-meter	Participants put down their rating of this session	Mood-0-meter chart	10-15 minutes	

Suggested training process

The misalignment between the goals of 'health' and the processes of 'care' has caused the death of tens of thousands of mothers and newborns. This module is an attempt to iron out the deficiencies and provide quality care by addressing the two critical components of infection control and health facility infrastructure management.

While the enclosed technical paper addresses the issues comprehensively in theory, this module can attempt a practical display of the approaches to betterment.

An effort can be made to recreate a PHC. To ensure quality in service delivery in the public facilities, programme managers have to ensure that the facility is in a state of readiness to give timely prompt services. To provide optimal maternal and child services, a facility should have following four areas: examination corner, labour room, NBCC and service station. The re-creation attempted in this model should show all these four areas together on stage. It will make for a visually compelling depiction of the infrastructure and to show how improvements can be affected.

The examination corner is an area where the woman is examined when she comes for delivery before transferring her to labour room. This is a place where adequate privacy with curtains between examination tables should be maintained. A pregnant woman will go to the delivery/labour room if she is in active phase of labour, i.e. cervical dilatation = or > than 4 cm. Every labour room and obstetric OT should have a NBCC with a radiant warmer, a functional bag and mask of appropriate size, essential equipment and drugs. Every labour room should have a demarcated service area for the paper work (recording/ reporting, etc.) -- service station -- which should not be completely segregated from the patient areas, so that the staff on duty can quickly respond to any exigency or the requirements of the women in labour.

The session can begin with a facilitator explaining the issues to be addressed and the role the recreation of the PHC and the actors will play to highlight issues. Role plays in each session can enable a depiction of processes and methods needed in a woman's journey to safe motherhood and show the kind of attention newborns should be given.

1

Chart a creative route. Tap into acting abilities. Use role play to enact of the crucial role of health programme managers within facilities, especially in the area of re-organisation of labour room for better services. This has to be done in conjunction with the Medical Officer In Charge (MOIC) (5mins)

Open this segment with a role play situated in the labour room. The idea is to understand how to re-organise the labour room in a systematic and planned way with all essential equipment and drugs in a functional state. And, to advocate the required improvements in its organisation with the relevant health official to facilitate better quality service delivery.

Role play: A block manager enters an unoccupied labour room with an MOIC. He complements the MOIC for its impeccable state and the orderliness of its arrangements. He then negotiates for the accommodation for another bed in this room. Arguing that there is a spare, unused bed in the facility, he tries to persuade the MOIC to accommodate it after erecting a partition between the

prevailing one and the new bed. The meeting is a success. The MOIC sees the logic of the manager's argument in view of the anticipated case load. The block manager has these figures ready on his fingertips as he has calculated them prior to the meeting, based on the expected number of pregnancies and deliveries monthly for the block derived from ASHA and AWW records**.** He also gently suggests that some missing elements in the labour room be made available and that the room also be draught free as required by the protocol.

2

Find a story to demonstrate the importance of infection control and its application in clinical practice for infection prevention (10 mins)

A staff attendant demonstrates the process of the preparation of 0.5% chlorine or hypochlorite solution to decontaminate instruments, soiled linen before cleaning, and mopping of the labour table and labour room floor.

Mangroo, a staff attendant, enters and explains why this process is needed. He begins by washing his hands using the medical hand wash procedure for two minutes. He then wears a plastic apron and slips on utility gloves. He proceeds to demonstrate the process of preparing of 0.5% chlorine step-by-step with verbal instructions.

1. Take one litre of water and pour it in plastic tub/bucket
2. Take 15 grams (three teaspoons/1 tablespoon/1 match box) of fresh 33% bleaching powder (calcium hypochlorite) in a plastic mug
3. Add little water from the plastic tub/bucket into the mug to make a stock solution
4. Allow the residue in the mug to settle down. Then pour the clear solution into the plastic tub/bucket and stir it to get 0.5% chlorine solution.

When he is done, he has a question for the participants. How can one calculate the amount of bleaching powder for a given volume of water or its weight?

The answer is simple. The weight of bleaching powder in gm (w) = **[concentration of desired solution (w/v)] ÷ [concentration of bleaching powder (w/w)] x (Volume of water in ml).** Suppose the concentration of desired solution (w/v)= 0.5% and the concentration of bleaching powder (w/w)= 33% and we have to prepare 1000 ml of 0.5% chlorine solution, the way to calculate the weight of

bleaching power is: (0.5% ÷ 33%) X 1000 = 15.15 gm= 3 teaspoon= 1 tablespoon= 1 match box for 1 litre of water. For 20 litre of water we need 15.15 X20=303 gm= 60 teaspoon =20 tablespoon= 20 match box of bleaching powder.

He leaves the room after he has filled out the duty chart with the date and time of preparation of the hypochlorite solution**.**

3

Utilise an effective storyline. The story set in the examination room will demonstrate the importance of the three ANCs, its processes; and help understand the arrival of the critical moment when a woman needs to be wheeled into the labour room (15 mins)

The actor playing ANM1 greets the audience and directs their attention to items that must be part of the examination room

Essential equipment in examination room

1.Wheelchair and/or stretcher	2. Examination table with foot step and curtain for privacy	3. Foetoscope/doppler
4. Table and chair for doctor	5.BP apparatus with stethoscope	6. Thermometer
7. Wall clock	8. Adult weighing scale	9. Measuring tape
10. Emergency drug tray	11. Hub cutter	12. Puncture proof container
13. Colour coded bins	14. Partograph	15. Cetrimide swabs
16. Disposable gloves	17. Records/registers	18. Refrigerator
19. Utility gloves	20. Mother Child Protection (MCP) Card, safe motherhood booklet	21. Intrauterine Contraception Devise (IUCD) Client Card
22. Sterilised swabs and instruments	23. Washbasin	24. 0.5% chlorine solution and a tub;
25. Examination tray	26. Delivery tray in case of emergency	27. Bucket and Kelly's pad
28. IV stand	29. Scissor	30. Telephone

Role play: A pregnant woman comes into this well-lit examination room. She greets the actor playing ANM 1. She says she is due for her final ANC examination. She complains of discomfort. The actor who plays ANM I comforts her and asks her whether this is her first or second child. On ascertaining it is her second, she examines her ANC card and asks whether she has had her iron tables as per schedule. She also checks her BP, pulse rate, eyes for anemia/pallor, and measures her abdomen. She then draws the curtain to make an internal examination. She requests the woman to lie on the examination table. She then proceeds to wash her hands using the six recommended steps, slips on her gloves and mask. She then begins her examination. She declares that the woman's cervix has dilated 8 cms and that she is ready to be taken to the delivery room to deliver her baby. She assuages her fears and says that she will be with her every step of the way.

4

Use the enactment mode yet again to demonstrate the essential elements of a labour room; the proper use of personal protective equipment (apron, mask, cap, gowns, hub cutter, colour coded bins, puncture proof containers, sterilised gloves, plastic slippers and disposable foot wear, and eye goggles) and the three stages of labour

Role play: The actor playing ANM 2 enters. She greets the audience and runs through the essential items needed in the labour room as per protocol guidelines.

Essentials in a labour room

1. Labour table with mattress, sheet, pillow (numbers as per case load), macintosh, foot-rest	2. Brass V drape to collect blood and amniotic fluid
3. Wall clock with seconds hand	4. Wall mounted thermometer
5. Suction apparatus	6. Equipment for adult resuscitation
7. Equipment for neonatal resuscitation	8. Delivery trolley
9. IV drip stand	10. Screen/partition between two tables

11. Stool for birth companion	12. Lamp – wall mounted or side
13. Autoclave drums for instruments, linen, gloves, cotton, gauge, threads sanitary pads	a. Autoclaved delivery set for each delivery
14. Refrigerator	15. Sphygmomanometer, adult and newborn thermometer and newborn weighing machine
16. Consumables like gloves, apron, cotton, thread, gauze, sanitary napkins, catgut, IV drip sets, needle, cord clamp, medicines (injectable, oral and parenteral, leucoplast etc.	17. Pulse oximeter
18. Steriliser	19. Oxygen cylinder
20. Oxygen concentrator	21. Partograph
22. Labeled plastic jars for drugs and injectables with date of expiry written on them against each drug	23. Coloured bins for bio medical waste management
24. Hub cutter	25. Puncture proof container
26. Plastic tubs for 0.5% chlorine solution	27. Intra natal protocols for AMTSL and PPH etc.)
28. Wheel chair/patient's trolley	29. 7 Trays: Delivery tray, Episiotomy tray, Medicine tray, Emergency drug tray, Baby tray, MVA tray, PPIUCD tray
30. Hand-washing area and toilet for the admitted clients	31. Foetoscope/foetal Doppler
32. Stethoscope	33. Display of SBA quality protocols, and shadow less lamp
34. Mosquito repellent	35. Protocols and record registers

She then demonstrates the use of all the personal protective equipment one by one. And, emphasises the need for a toilet, ANC room, NBCC, and service station adjoining the labour room.

She points to the protocols that must be posted on the walls of the room:

- Simplified partograph

- Vaginal bleeding before 20 weeks
- Vaginal bleeding after 20 weeks
- Management of PPH
- Eclampsia
- AMTSL
- Breastfeeding
- Hand washing (above washbasin)
- Preparation of 0.5% bleaching powder solution
- Infection prevention

Meanwhile the actor playing ANM1 wheels in the expectant mother who has just been examined in the examination room and is ready to deliver.

She explains to the other ANM that the woman is ready to deliver. They both speak calmly to the mother. They help the woman change into a robe. Then the ANM 2 requests ANM1 to help her with the delivery if she is not required in any other room. The ANM2 agrees. They both wash their hands using the six prescribed steps; wear the labour room gown, slippers and mask. They slip on two gloves - the bigger one on the outside, the tighter one inside. They examine the expectant mother's vital signs and foetal heart rate. A foetal Doppler allows the mother to hear her baby's heartbeat.

At this stage, the actor playing the expectant mother leaves the room. A mannequin is brought in. The wondrous process of delivery is depicted using this dummy. Every step of the process is shown, including the monitoring and management of labour using partograph, active management of third stage of labour and hygienic cord care. The dummy baby is received in a pre-warmed cloth.

5

Repeat the use a fictional scenario to demonstrate how to handle emergencies in the labour room; a demonstration of neonatal resuscitation (10 mins)

In continuation of the earlier session, this session underlines how to deal with emergencies. In this case, the two ANMs have to contend with a baby who does not seem to be breathing.

Seeing this, the ANMs cuts the cord first. One ANM rushes the baby to the NBCC and places baby in radiant warmer. She massages the baby's feet and stimulates

blood flow by massaging the baby. She also uses the pumping machine and the ambu mask to revive the baby.

The other ANM asks the staff attendant to summon the doctor immediately. Meanwhile, she continues to attend to the mother. She first reassures herself that there is only one baby. She then delivers the placenta, turning it left and right and checks to see if it is fully out. She disposes the placenta in the yellow bin. She then proceeds to give a uterine massage to the mother, talking to her in a reassuring manner and assuaging her fears for the baby. She checks for excessive bleeding. When all the indicators are fine for the mother, she disposes off her gloves in the bleach solution that has been prepared by the staff attendant.

In the interim, sounds of the baby crying are heard. The ANM 1 has been successful in reviving the baby. The mother is informed that all is well with her baby.

The actor playing ANM 1 briefs the managers on what records she will need to update the:

- Labour room register
- Refer in register
- Refer out register

She also alerts the audience to the fact that she will have to ensure stocks of instruments, drugs, personal protective gear and bleaching powder. This will require working out the numbers based on expected number of deliveries in the month; the expected date of delivery; and the approximate quantity of items needed (keeping a ten percent margin for wastage). It will also mean coordinating with the stock keeper.

The actor playing ANM2 who is with the baby talks about the do's and don'ts for newborn babies.

Do's	**Don'ts**
Always wash your hands before handling the baby	Do not keep all babies as a routine under the radiant warmer
Rooming in of baby with the mother	Do not delay breastfeeding beyond half an hour as that may lead to rapid decrease in

	suckling reflex of the baby
Keep the baby warm	Do not use pre lacteals even water
Take extra care to maintain baby's temperature in preterm and low birth weight (LBW) baby	Do not apply anything on the cord
Keep the cord dry and clean	Do not apply anything on the cord
Breastfeed the baby exclusively for first six months	Do not bathe the newborn for 24hrs after birth
Early initiation of breastfeeding is essential for a good reflex action	Do not forget to undertake routine checkup
Any signs/symptoms of complications must be referred and attended to by a doctor	
The care provider should observe every two hours in the first six hours and every six hours from 6–24 hours after delivery	
If the newborn has a low birth weight then at least three additional visits should be ensured	

She also reminds the audience that she needs to fill the newborn register.

She also quickly runs through the organising of the operation theatre; its essential components; its three zones (protected; clean and sterile); the do and don't; and the quality control measures.

6

Demonstrate live the processing of surgical instruments, medical equipment and linen; use of autoclave and glutaraldehyde for regular sterilisation; proper collection, segregation, treatment and disposal of bio-medical wastes; and regular cleaning and sterilisation of labour room, new born care corner and operation theatre

(a)

- *Actors who play staff attendants will begin by explaining the four steps of instrument processing. Soiled instruments, used surgical gloves, and other reusable items can transmit disease, if infection prevention procedures are not properly followed*

Step-1:decontamination/disinfection: By dipping and soaking contaminated instruments, soiled items etc in 0.5% chlorine solution for 10 minutes and wiping soiled surfaces such as labour tables, hospital beds etc with a 0.5% chlorine solution, most of the infectious agents are killed. Decontamination makes inanimate objects safer to handle before cleaning.

Step-2: cleaning: After instruments and other reusable items have been decontaminated, they need to be cleaned thoroughly to remove visible dirt and debris, including tissue, blood and body fluids.

Step-3: sterilisation or high-level disinfection (HLD): Sterilisation can be achieved using steam under pressure in an autoclave, dry heat in Hot Air Oven, or a chemical like 2-4% Glutarldehyde. HLD can be achieved by boiling over 20 minutes, or soaking items in 2-4% Glutaraldehyde over 20 minutes.

Step-4: storage: Sterilised and HLD items must be stored in a clean, dry area. Sterile packs and containers should be dated and rotated, using a "first in, first out" approach. Wrapped packages that remain dry may be used up to one week, and wrapped packages sealed in plastic up to one month. In this given time if they are not used, they should be sterilised again. All autoclaved and wrapped instruments should have a tag (signolac strip) which will indicate the status of sterilisation after autoclaving.

(b)

- *The actors then explain the process of sterilisation by autoclaving (that is a process of sterilisation by steam under pressure). An autoclave is kept in front to explain*

1. Hand washing
2. Wear mask and gloves
3. Disconnect autoclave from plug and open it by loosening the locking screw
4. Fill the autoclave with distilled water or clean water till the water level mark

5. Paste signolac tap inside and outside of the lid of the autoclave drum. Put the autoclave drum inside and close the lid by tightening the locking screws present diagonally opposite to each other
6. Close the air exhaust valve and vacuum release knob
7. Switch on the autoclave
8. Sterilise the instruments at 121 degree centigrade temperature and at 15 PSI pressure over 20 minutes
9. Switch off the autoclave; allow the steam to come out or pressure gauge to come down from 15 PSI to 0 PSI
10. Release the steam valve to completely release the residual steam and then tighten the valve. Close the valve when water is removed completely
11. Remove the water by opening water valve. Open the autoclave lid by loosening the locking screw
12. Take out the surgical bin carefully and close the holes with belt n clips
13. Examine the temperature indicator strip or Signolac tap
14. Store sterilised instruments at proper place

(c)

- *They then proceed to explain the processes of sterilisation using a chemical method*

1. Medical hand wash
2. Wear sterile mask and gloves
3. Take sterile tray/Glutaraldehyde tray with lid and fill 3/4th tray with 2% Glutaraldehyde solution
4. Immerse instruments in 2% Glutarldehyde solution and close the lid of tray
5. Stick a label on tray containing name of solution, percentage, date and time of preparation, expiry date.
6. Keep the instruments in solution for 10- 24 hours (Do not add extra instruments during this period)
7. Remove instruments with cheatle forceps after 10-24 hours and put them in another tray with sterile water/normal saline.
8. Rinse them properly in different tray with sterile water/normal saline and finally keep them on dry and sterile towel.

9. Once instruments dried store them in sterile container

(d)

- *The process of high level disinfection using electric boiler is tackled next by the actors*

1. Medical hand wash
2. Open the lid of boiler and remove the tray with handle
3. Fill the boiler with 3/4th of clean water and put back the tray with handle
4. Keep cleaned instruments in tray
5. Close the lid of boiler and switch on the power
6. Once water start boiling, allow it to boil for 20 minutes
7. After 20 minutes, switch off the boiler and open lid carefully
8. Remove the instruments with cheatle forceps and keep them on sterilized towel
9. Allow instruments to dry and store them in sterile bin or tray

(e)

- *The actors address the routine of packing of instruments*

1. Wash hands properly
2. Take one clean tray and spread a green napkin inside the tray
3. Arrange all instruments in proper way
    - Keep all the instruments in one direction
    - Ensure that tips of instruments are not in contact with each other
    - Sharp instruments should be covered with cloth
    - Write down the information like name of tray (Delivery tray/Episiotomy tray/IUCD tray etc), number of instruments in tray, date of sterilisation and signature of nurse on label and paste it on top of the packed tray
    - Paste temperature indicator with date of last sterilisation and date of expiry on the pack.

(f)

In the final analysis, the actors talk of the different categories of bio medical waste to familiarise the managers with the process of BMW segregation and the disposal mechanisms.

Type of Waste - Segregation - Disposal options as per the Schedule-I by the Pollution Control Board					
S. No.	**Colour**	**Point of Generation**	**Category of Waste**	**Treatment**	**Disposal**
1		Labor Room / OT	1 = Placenta, Body Parts, Organs 2 = Animal Body Parts 3 = Laboratory Waste - Microbiological or Biotechnical	No Treatment	Incineration / Deep Burial
2		Dressing Room / Labor Room / OT / Wards	3 = Laboratory Waste - Microbiological or Biotechnical 6 = Soiled Cotton/Bandages, clothes with Blood or body Fluid	Auto-Claving / Micro-Waving	Incincration / Microwaving / Auto-Claving
3		Injection Room / Wards	4 = Sharps - Needles, Scalpels, Blades, Broken Glass (Collect in a separate Puncture-proof Poly Bag) 7 = Tubings, Disposable IV Fluid Bottles	Disinfecting with 1% Hypochlorite Solution	Disinfect with 1 % Hypochlorite Solution and bury in Sharp Pit
4		Dispensary / Wards	5 = Discarded / Outdated Medicine 9 = Ash from Incineration of BMW 10 = Chemicals from disinfection activities	Destruction	Secured Landfills.
5	Laboratory, Washing, Cleaning, House-Keeping, Disinfecting activities		8 = Liquid Waste from Laboratory, Wards, OT, LR, Wash area, Toilets etc.	ETP or Disinfect with 1% Hypochlorite Solution (in small places)	Discharge in the Municipal Sewerage line

Note:

1. Deep burial shall be an option available only in towns with population less than 5 lacs and in rural areas.
2. Chemical treatment using 1% hypochlorite solution or any equivalent reagent must be ensured that chemical treatment ensures disinfection.
3. Mutilation/shredding must be done so as to prevent unauthorized reuse.
4. There will be no chemical pretreatment before incineration. Chlorinated plastics shall not be incinerated.

7

Screen a video to capture issues relating to organising the operation theatre; ensuring proper clothing for staff; the three zones within a facility; the regulation visitor entry; sterilisation; fumigation; and segregation of wastes to increase recall value (12 mins)

As this module has discussed most issues, throw the spotlight on the process of fumigation in the operation theatre and labour room after the film viewing.

Fumigation is a process of sterilising the operation theatre and labour room, using formaldehyde gas. For fumigation, list these elements are important:

- thoroughly mop the windows, doors, floor, walls and all washable equipment with 0.5% chlorine solution before cleaning
- thoroughly clean the windows, doors, floor, walls, AC Filters and all washable equipment with soap and water
- close windows and ventilators tightly. If any openings found, seal it with cellophane tape or other material
- switch off all lights, ACs and other electrical and electronic items
- Calculate the room size in cubic feet (L×B×H) and calculate the required amount of formalin (40% Aqueous solution of Formaldehyde (HCHO))
- adequate care must be taken by wearing cap, mask, foot cover, spectacles

8

***Sikhey baton baton mein*: roll out a quiz with a difference**

Organise a quiz with 15 questions and 15 prizes. As the sessions have been information heavy, this should be planned as a fun session to lighten the mood and let the participants recapture all they have learnt, in a relaxed manner.

9

Observe a two-minute silence and pledge

Request the participants are requested to keep a two minute silence for all the mothers and newborns who have died in the absence of timely care.

Make them take a collective pledge that as programme managers they will do everything within their ability to stop mothers and newborns from an untimely and unnecessary death.

Suggested posters for display

Observation room

- ANC visits

- Preventing infections
- Hand washing

Labour room

Protocols on

- Simplified Partograph
- Vaginal bleeding before 20 weeks
- Vaginal bleeding after 20 weeks
- Management of PPH
- Eclampsia
- AMTSL
- Breastfeeding
- Hand washing (above washbasin)
- Preparation of 0.5% Bleaching Powder Solution
- Infection prevention

Posters on

- Essential drugs
- AMSTL
- Sterilisation of equipment

NBCC

- Breastfeeding
- New born resuscitation protocol

Suggested handouts

Check list of housekeeping

Technical manual

PDF format