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Improving Postnatal Care and Prevention and Treatment of Postpartum Haemorrhage

*Report of the Regional Consultation
SEARO, New Delhi, 6–8 July 2009*

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10:35 – 12:30	Group Work	
13:30 – 14:00	Presentation of Group Work	
14:00 – 14:30	Discussion	
14:30 – 14:45	Utilization of data to improve programme implementation	Dr Lale Say
14:45 – 14:50	Introduction to Group Work	Dr Katherine Ba-Thike
14:50 – 15:30	Group Work: Development of a country work plan to improve data collection on key RH issues and plans for improvement	
16:00 – 16:30	Presentation of Group Work	
16:30 – 17:00	Conclusion and recommendations, closing	WHO-SEARO and HQ

12:15 – 12:30	Discussion	
13:30 – 15:30	Review of the proposed contents and timing of PNC	Dr Matthews Mathai
16:00 – 16:30	Review of the proposed contents and timing of PNC	
16:30	Reception	All participants
Tue, 7 Jul 2009		
Theme II: Prevention and Treatment of PPH		
08:30 – 09:00	Introduction of WHO Guideline on Prevention and Treatment of PPH	Dr Matthews Mathai Dr Katherine Ba-Thike
09:00 – 09:30	Discussion	
	Country presentation: Experience in prevention and treatment of PPH at primary care level	
09:30 – 09:45	➤ India	Participant, India
09:45 – 10:00	➤ Nepal	Participant, Nepal
10:30 – 10:45	➤ Myanmar	Participant, Myanmar
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15:00 – 15:30	Presentation of Group Work	
16:00 – 16:30	Discussions	

Wed, 8 Jul 2009

08:30 – 09:15	Framework for national monitoring of universal access to reproductive health (MDG target 5B)	Dr Lale Say Dr Katherine Ba-Thike
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Executive summary

The South-East Asia Region of WHO accounts for one third of the global maternal and neonatal deaths. The majority of these deaths are due to postpartum haemorrhage and other direct obstetric causes, and often relate to lack of appropriate care during childbirth and the immediate postnatal period. Therefore the achievement of Millennium Development Goal (MDG) 5 of improving maternal health depends largely on managing obstetric complications during the postpartum and postnatal periods, which will also contribute to the achievement of MDG 4 by reducing neonatal mortality.

In view of the aforesaid, a regional consultation was organized by the WHO Regional Office for South-East Asia in New Delhi from 6–8 July 2009 on Improving Postnatal Care and Prevention and Treatment of Postpartum Haemorrhage. The participants were from the health ministries and professional organizations from countries of the Region as well as the representatives from international organizations.

WHO's commitment to assisting countries in attaining MDGs 4 and 5 by improving the availability and access to comprehensive maternal and neonatal health (MNH) services, based on the primary health care approach was reiterated. The consultation provided a platform to discuss the issues of quality of MNH care focusing on the review of the existing guidelines related to postnatal care and prevention and treatment of postpartum haemorrhage. It prompted attention on the review and development of country strategies for improving postnatal care and prevention and treatment of postpartum haemorrhage.

Annex 2
Programme

	Subject	Facilitator/Speaker
Mon, 6 Jul 2009		
08:30 – 09:00	Registration	
	Inaugural Session:	
09:00 – 09:10	Message from the Regional Director, SEAR	Dr Dini Latief
09:10 – 09:20	Objectives of the Consultation and Introduction to the Programme	Dr Akjema Magtymova
09:20 – 09:35	Introduction of Participants	
09:35 – 09:40	Appointment of Chairperson and Rapporteur	Dr Dini Latief
09:40 – 09:45	Announcements	Ms Ritu Agarwal
09:45 – 10:00	Group photograph	
	Theme I: Postnatal Care	
10:30 – 10:45	Background of the Consultation: Issues on Postnatal Care (PNC) and Postpartum Haemorrhage (PPH) in the SEA Region	Dr Akjema Magtymova on behalf of Dr Ardi Kaptiningsih
10:45 – 11:00	Improving postnatal care for mother and newborn	Dr Matthews Mathai
11:00 – 11:30	Discussion	
11:30 – 12:30	Country's experience: Delivering post-natal care – contents and timing	
11:30-11:45	➤ Sri Lanka	Participant, Sri Lanka
11:45-12:00	➤ Indonesia	Participant, Indonesia
12:00-12:15	➤ Thailand	Participant, Thailand

Indicator	Category	Definition	Data source	Responsibility
2.2. Number of positive HIV treated	Additional indicators	Number of pregnant women attending delivery room whose blood tested positive for HIV and treated/total pregnant who are HIV positive	PMTCT project and HIS	Provincial Health Office, MOPH
2.3. Percentage of HIV+ve unattended ANC	Additional indicators	Number of pregnant women with HIV+ve unattended ANC /total pregnant who are HIV positive	PMTCT project and HIS	Provincial Health Office, MOPH

1. Introduction

Two thirds of maternal and newborn deaths occur in the first two days after birth. Postpartum haemorrhage is responsible for approximately one fourth of maternal deaths due to direct obstetric causes, while pre-term birth, asphyxia and severe infections contribute to two thirds of all neonatal deaths. Thus, the period following birth is critical for the health of mothers and their newborns. However, this period after childbirth is often neglected by health providers: postnatal care is not scheduled routinely, or even if in place, the content of care is merely limited to superficial observation. Though many national strategies in many Member countries of the South-East Asia Region encourage institutional deliveries or deliveries assisted by skilled attendants, the implementation of these strategies needs to improve. Efforts to reduce maternal and newborn health are gaining momentum through the Joint WHO-UNFPA-UNICEF-World Bank support to countries, which follows a pledge made by the heads of these agencies in 2008.

Revitalizing maternal, newborn and child health care in the context of primary health care (PHC) is one of WHO's priorities in the Region. Special attention is required to the delivery of quality comprehensive maternal and newborn care. The regional consultation held in New Delhi on 6-8 July 2009 focused on Improving Postnatal Care and Prevention and Treatment of Postpartum Haemorrhage.

Dr Dini Latief, Director, Department of Family Health and Research, WHO/SEARO opened the regional consultation by delivering a message of the Regional Director, Dr Samlee Plianbangchang. WHO's commitment to assisting countries in attaining MDGs 4 and 5 by improving quality of maternal and neonatal health (MNH) services was reiterated. It was pointed out that the consultation marked an important event focusing on the quality of maternal and newborn care during the critical period and within the context of primary health care.

2. Objectives

The main objective of the consultation was to facilitate countries in the South-East Asia Region in improving postnatal care and in prevention and treatment of postpartum haemorrhage in order to accelerate the achievement of the MDG 5. The specific objectives were: i) to review WHO guidelines on postnatal care and prevention and treatment of postpartum haemorrhage and ii) facilitate countries in development of strategies for improving postnatal care and prevention and treatment of postpartum haemorrhage.

3. Theme I: Postnatal care

3.1 Issues in Postnatal Care and Postpartum Haemorrhage in the South East Asia Region

Dr Akjemal Magtymova, Medical Officer-Making Pregnancy Safer, WHO/SEARO presented the situation on MNH and underlined the issues related to postnatal care (PNC) and postpartum

- Current system for obtaining core indicators: MCH and PMTCT data collection form from provincial health office, MOPH.
- Additional indicators on elements of SRH: from provincial health office, MOPH, national survey.

Indicators for STIs/HIV

Indicator	Category	Definition	Data source	Responsibility
1.1. Pregnant women whose blood tested positive for syphilis	Additional indicators	Number of pregnant women attending antenatal clinics whose blood tested positive for syphilis and required treatment/new pregnant women attending ANC clinic	HIS	Provincial Health Office, MOPH
1.2. Newborn with congenital syphilis	Additional indicators	Number of newborns with congenital syphilis/pregnant women attending antenatal clinics whose blood tested positive for syphilis	HIS	Provincial Health Office, MOPH
2.1. Pregnant women attending delivery room whose blood tested positive for HIV	Core indicators	Number of pregnant women attending delivery room whose blood tested positive for HIV /total delivery	PMTCT project and HIS	Provincial Health Office, MOPH

(3) Availability of national policy/plan on BF/BFHI.

Inputs:

- (1) Availability of Basic ENC/Comprehensive ENC facilities for 500 000 population (HMIS).
- (2) Availability of human resources/finance per norms (HMIS).
- (3) Availability of essential/advanced newborn care equipments per norms (Health sector surveys).
- (4) Availability of protocol for management of newborn emergencies (health sector surveys).

Process/quality:

- (1) Newborn infection rates (health sector surveys).

Output:

- (1) Percentage of births in institutions with emergency and comprehensive newborn care facilities (HMIS)

Outcome :

- (1) Percentage of births small for gestational age (HMIS)
- (2) Percentage of births breastfed within first hour of birth (DHS)
- (3) Intrapartum death rate (core) – HMIS
- (4) Early neonatal (0-7 days) death rate (core) – HMIS/VR
- (5) Cause-specific NMR (HMIS)
- (6) POA-specific NMR (HMIS)
- (7) Birth-weight -specific NMR (HMIS)

8. Thailand: STI/HIV

haemorrhage (PPH) in the Region. Often the period after childbirth is the most neglected period for the provision of quality care. There is scarcity of data on early postnatal care in countries of the Region but often women are discharged within hours following birth of the baby. Postnatal care for mothers and newborns is not well defined, including the frequency and timing of PNC visits and postpartum family planning. The assignment of responsibilities for provision of PNC at the community and primary care levels is ambiguous.

Postpartum haemorrhage is the major direct cause of maternal deaths. An effective referral system and quick actions by the community and the front-level health providers are required to save the lives of the women once PPH occurs. There are proven interventions for prevention and management of PPH, including active management of the third stage of labour. However those interventions often are not routinely administered. There are also controversial practices, e.g. the use of misoprostol by lay persons for prevention and treatment of PPH, the use of oxytocic drugs for augmenting labour both at the facilities and for home deliveries, which need to be reviewed. Dr Akjemal concluded that the consultation would give a platform to introduce a WHO guideline on prevention and treatment of PPH and to discuss what needs to be done in the countries to standardize postnatal care based on current evidence and available resources to maximize health benefits for mothers and their newborns.

3.2 Improving postnatal care for mothers and newborns

Dr Matthews Mathai, MPS Department WHO/HQ noted that 60% of maternal deaths occur in the postpartum period (with PPH

being a leading killer) while 24% and 16% occur during pregnancy and delivery respectively. Neonatal deaths account for 37% of all deaths among children under-five years of age. Birth asphyxia (23%), preterm birth (28%) and infections (26%, including tetanus 7%) account for the majority of newborn deaths. Most maternal (60%) and many neonatal (40%) deaths occur within the first 24 hours, while 99% of infant deaths within the first five days of life are symptomatic within the first 18 hours.

Despite these appalling epidemiological data, the postnatal period gets least attention from health providers (on average only 30% of PNC coverage in developing countries and 90% in developed countries). The 1999-2004 Demographic Health Survey (DHS) covering 30 countries in five WHO regions show large variations in provision of PNC among countries. For example, 61% of countries had some form of PNC with 48.7% institutional deliveries and 12.4% of non-institutional deliveries and mostly non-professional PNC. Institutional deliveries were characterized as “drive-through” deliveries and had little or no immediate PNC. Younger mothers, urban residents, those with higher educational status and household income would be more likely to receive PNC according to DHS. However, there is limited data on the content of PNC for mothers and newborns, and professional vis-à-vis non-professional care.

The 1998 WHO guideline on “Postpartum Care of the Mother and Newborn: A practical guide” covered a range of issues relevant to mothers and newborns, including women's perception of postpartum problems, the MNH challenges, nutrition, breastfeeding, etc. Routine postnatal care includes monitoring and assessment of maternal and neonatal well being, promotion, protection and support for breastfeeding, as well as

Indicator	Category	Definition	Data Source	Responsibility
Neonatal mortality rate	Impact	Number of neonatal deaths per 1000 live births	Vital Registration Under reporting is there No place corrections	
Perinatal mortality rate	Impact	Number of perinatal deaths per 1,000 live births	Vital Registration Under reported act amended to register all stillbirths still not implemented HMIS – under reported Active surveillance–perinatal audit Hospital morbidity/mortality data	MOH
Percentage of deliveries with LBW	Outcome	Percentage of Live births of less than 2500g out of live births	HMIS(under reported) DHS	MOH DCS

Extended and additional indicators for newborn care (Sri Lanka and Maldives)

Policy:

- (1) Availability of national strategic plan on intra-partum and newborn care.
- (2) Availability of national standards/protocol for intra-partum care/essential newborn care.

7. Sri Lanka: Newborn health

Indicator	Category	Definition	Data Source	Responsibility
Maternal mortality ratio	Impact	Number of maternal deaths per 100,000 live births	Routine active surveillance of MD *VR data under reported	MOH
Births attended by skilled personnel	Service use	Professionally midwifery qualified person attending delivery	DHS Survey	Department of Census and Statistics (DCS)
Contraceptive prevalence	Service use	Proportion of eligible couples using contraceptive methods	DHS Survey HMIS (under reported)	DCS MOH
ANC coverage four or more visits	Service use	Percentage of women attended ANC four times or more per estimated number of pregnancies	DHS HMIS	DCS MOH
Unmet need for FP	Service use	Proportion of women at risk of pregnancy wanting to space or limit child bearing who are not using contraception	DHS HMIS	DCS MOH
Adolescent birth rate	Outcome	Age-specific fertility rate for 15-19 age group	Vital Registration	

prevention, detection and treatment of maternal and neonatal complications and providing information and counselling on postpartum care.

The technical consultation on Postpartum Care held in Geneva, in October 2008 organized by WHO/HQ focussed mainly on the aspects of PNC related to institutional delivery, such as timing of direct care by a skilled attendant after delivery, content of care during the immediate postnatal period, criteria for discharge to maintain health of the woman and her baby. Other issues discussed included timing and content of routine PNC after the immediate postnatal period. Sited references included Guidelines of the Society of Obstetricians and Gynaecologists of Canada, Canadian National Guidelines 2000, NICE Guidelines 2006, and the WHO Pregnancy, Childbirth Postpartum and Newborn Care (PCPNC) 2006, which mainly were structured for developed countries with universal coverage of facility deliveries and community maternity and child support.

There were inconsistencies in the definitions for length of stay used in the various studies and variations in recommendations by the different guidelines. Mothers with special needs were not addressed; none (except WHO) addressed home birth and birth without skilled attendant. Markedly, PNC remained a neglected area of research with limited evidence on how different approaches to routine postpartum/postnatal care affect maternal and newborn health outcomes.

3.3 Country Experience: delivering post-natal care – contents and timing

Country experiences from Sri Lanka, Indonesia and Thailand were presented on delivering postnatal care. In Indonesia standardized PNC for mothers and newborns at primary care level is provided by midwives at the maternity hut, village health post and health centre, while community activists are involved in health education and counselling at household level. According to the 2002-2003 and 2007 DHS the PNC coverage in Indonesia increased from 61.8% to 70.3%.

In Sri Lanka PNC coverage is 72% with an average of 2.7 visits. Skilled personnel assist 98% of deliveries (84% of deliveries take place at the tertiary level) and care of mother and newborn during immediate postpartum (first 24 hours) is considered as part of delivery care. Three PNC home visits by a public health midwife are scheduled during the first 10 days after delivery, one visit between the 11th to 28th day and one - around the 42nd day after delivery. This includes early registration of neonates at home, providing knowledge to the mother on newborn care, breastfeeding, self-care, nutrition and family planning; identification of neonatal and maternal risk factors, mental well-being, danger signs and appropriate referrals.

In Thailand, PNC coverage is as high as 89% for mothers and 89.6% for newborns during the first two weeks after delivery and 75.6% for mothers and 80.4% for newborn during 4-6 weeks postpartum. There are home visits at two weeks and six weeks postpartum periods by public health nurses from a health station. Immediate postnatal care at the institution includes maternal care (active management of third stage of labour/AMTSL using Ergotamine or Methergin IM, IV or Oxytocin

Indicator	Category	Definition	Data Source	Responsibility
			system	
Unmet need for family planning	Service use	Proportion of women who want to delay/stop child bearing but are not using any FP method	Periodical surveys DHS	MOHF
Adolescent birth rate	Outcome	Proportion of deliveries by adolescents	Vital registration system	MOHF
Neonatal mortality rate	Impact	Number of neonatal deaths /1000 live births	Vital registration system	MOHF
Perinatal mortality rate	Impact	Number of perinatal deaths /1000 live births	Vital registration system	MOHF
% of deliveries with LBW	Outcome	Number of low birth weight babies/total number of live births	Vital registration system	MOHF

No. of FP acceptance post CAC/PAC	Core	Number of women who had accepted FP services following CAC/PAC	HMIS	DoHS/MoHP
No. of post CAC complications	Core	Number of women treated for CAC complications	HMIS	DoHS/MoHP

6. Maldives: Newborn health

The current system for obtaining core indicators in Maldives: Vital Registration System; Health Information Management System, DHS, programme records, annual health reports, periodical surveys, online nutrition child surveillance system.

Indicator	Category	Definition	Data Source	Responsibility
Maternal mortality ratio	Impact	Number of maternal deaths/100,000 live births	Vital registration system	MOHF
Births attended by skilled personnel	Process	Number of deliveries conducted by a skilled birth attendant	Vital registration system	MOHF
Contraceptive prevalence rate	Service use	Proportion of contraceptive users, among women of reproductive age group (married)	National Health Surveys Programme records (LMIS)	MOHF
Antenatal care coverage	Service use	Percentage of women with minimum of four antenatal visits	HIMS National Surveys Online nutrition child surveillance	MOHF

after delivery of the placenta, close observation of blood loss during two hours in the recovery room) and newborn care (cord clamping, injection of Vitamin K and Hepatitis B vaccine, 0.5%Tetracycline eye ointment), early bonding and breastfeeding. During home visits, the condition of mother's and the baby's health is assessed with particular attention to danger signs. Advice is given on the development of the baby, breastfeeding, hygiene, nutrition, family planning methods and visit to the hospital for follow-up. Newborn health is also assessed at the hospital visit at two months which includes immunization and child development examination.

3.4 Group Work 1: review of the proposed contents and timing of PNC

The participants were divided into four groups for Group Work as follows: (i) Group 1: Nepal and India; (ii) Group 2: Thailand, Sri Lanka and Maldives; (iii) Group 3: Bhutan and Myanmar and (iv) Group 4: Indonesia and Timor-Leste. The groups used a draft table with the contents of PNC for the mother and the newborn. They provided detailed feedback on the *immediate PNC*, which in general was referred as health care for mother-baby dyad within the first 24 hours after delivery at a health institution, or within 48 hours in case of home delivery through a home visit.

This exercise demonstrated that there was a wide variation in timing of PNC across the countries of the Region. Table 1 below reflects the varied timing of PNC in countries of the Region as per feedback collected from the participants during this exercise. The exercise also showed that the content of PNC also varied across and within countries. There were gaps between policy, technical guidelines and practice. It was difficult to come

to a firm consensus on some aspects of PNC content as there was a diversity of views and limited evidence. These included e.g. identifying the criteria for referral in case of a LBW-baby, the use of antibiotics by community PNC providers, provision of iron tablets, etc.

The participants stressed the importance of initiation of and support to breastfeeding during the immediate postnatal period. It is also important to assess the woman and the baby to identify danger signs for immediate management and referral, if any. The importance of educating mothers and families on danger signs to allow adequate actions at the community and household levels was emphasized. Issues of nutrition, micronutrient and vitamin A requirements were also highlighted.

The groups had limited time to review in depth the content of early (days 2-7) and late (days 8-42) PNC in the draft WHO Report on Postpartum and Postnatal Care, which was prepared at a meeting held in Geneva in October 2008. One of the group suggestions was to schedule early PNC from two to six days inclusively for both the mother and the newborn; and for late PNC visit from 7 to 42 days for mother and from seven to 28 days for the newborn. The WHO PNC guideline of 1998 recommended postnatal care within the first six hours, six days and six weeks. While the countries have their own policy in implementation and timing of PNC, all participants agreed that *the first 24 hours are crucial for postnatal care to mothers and newborns, which must be provided by skilled attendants.*

The group work was followed by discussions. The key discussion points included:

Indicator	Category	Definition	Data source	Responsibility
Knowledge of at least 3 risk factors/ warning signs of pregnancy related complications	Additional	Number of pregnant women who know at least 3 risk factors	Survey	MoH
		$\frac{\text{Total number of pregnant women}}{\text{Total number of pregnant women}} \times 100\%$		
Births occurred in health facilities	Additional	Number of births occurred in health facilities	Survey	MoH
		$\frac{\text{Total births}}{\text{Total births}} \times 100\%$		
Direct obstetric case fatality rate	Additional	Number of maternal deaths due to direct obstetric cause	Survey	MoH
		$\frac{\text{Total number of obstetric morbidity}}{\text{Total number of obstetric morbidity}} \times 100\%$		
C-section as percentage of all live births	Core	Total number of C-section x 100%	HMIS	MoH
		$\frac{\text{Total number of deliveries}}{\text{Total number of deliveries}}$		

5. Nepal: abortion

The current system for obtaining core indicators in Nepal: Complicated Abortion Care (CAC) listed sites will report monthly to District Health Office (DHO) and DHO will report back to Health Monitoring Information System (HMIS)

Indicator	Category	Definition	Data Source	Responsibility
No. of CAC	Core	Number of women utilizing CAC services	HMIS	DoHS/MoHP
No. PAC (post abortion care)	Core	Number of women utilizing PAC services	HMIS	DoHS/MoHP

Indicator	Category	Definition	Data source	Responsibility
Maternal mortality ratio (MMR)	Core	$\frac{\text{Number of maternal deaths/year}}{100,000 \text{ live births}}$	Survey, HMIS	MoH, UNFPA, CSO
ANC and PNC	Core	At least 4 ANC visits. PNC: 1 st , 2 nd and 6 th week (Timor-Leste); 24 hrs, 3-5 days, 6 weeks (Myanmar)	HMIS	MW-DPHO- national (TLS) MW-RHC-Township-State/Division-National (MYA)
Births attended by skilled birth attendants	Core	Percentage of births assisted by those who are trained for management of labour (doctors, nurses, midwives) – do not include TBA and AMW	HMIS	MW-DPHO-national (TLS) MW-RHC-Township-State/Division-National (MYA)
Pregnant women tested for syphilis	Core	$\frac{\text{Number of pregnant women who received syphilis test}}{\text{Total number of pregnant women}} \times 100\%$	HMIS	MW-DPHO-national (TLS) MW-RHC-Township-State/Division-National (MYA)
Pregnant women tested for HIV	Core	$\frac{\text{Number of pregnant women who received HIV test}}{\text{Total number of pregnant women}} \times 100\%$	HMIS	MW-DPHO-national (TLS) MW-RHC-Township-State/Division-National (MYA)
Coverage of TT vaccination during pregnancy	Core	$\frac{\text{Number of pregnant women who received TT vaccine}}{\text{Total number of pregnant women}} \times 100\%$	HMIS	MW-DPHO-national (TLS) MW-RHC-Township-State/Division-National (MYA)
5 EmOC facilities per 500 000 population with at least one comprehensive EmOC	Core	<ul style="list-style-type: none"> • TLS: 65 CHS and 6 referral must have BEmOC (ongoing process) • Myanmar: based on WHO standard 	HMIS	MW-DPHO-national (TLS) MW-RHC-Township-State/Division-National (MYA)
Birth registration (Myanmar)	Core	Registration of births	HMIS	MW-RHC-Township-State/Division-National

- Recognition that recommendations on PNC content in IMPAC guidelines and other publications do not necessarily correspond with one another. There are no defined PNC content recommendations by timing of visit. Countries determine the contents and timing of PNC in accordance with available resources within their respective health systems and situation.

Table 1: Timing of Postnatal Care in countries of the South East Asia Region

No	Country	Duration of stay in service delivery point (SDP)	1st visit	2nd visit	3rd visit	Notes
1	Bangladesh*	6-24 hours	Within two days	3-6 days	7-42 days	Care for mother and the baby by nurse - midwives and community-based skilled birth attendants.
2	Bhutan	24-48 hours (varies for specific cases)	Within six days	Within 10 days	Around six weeks	Care for mother-baby dyad by health staff: health assistant, auxiliary nurse - midwife (in Basic Health Unit/BHU), medical officer (in BHU1).
3	DPR Korea*	5 days in health facilities for the normal cases	First day after being discharged	Second day: visited by midwife and household doctor	28 days: visited by midwife and household doctor	Care for mother-baby dyad by midwife, household doctor.
4	India	24 hours (varies for specific cases and could be extended to 2-3 days); updated guide -line recommend 48hours	1st-3rd day	Seventh day: visit by ASHA	Sixth week: mother and baby visit SDP	Care for mother-baby dyad by medical officer, nurse or auxiliary nurse - midwife in health facility.

No	Country	Duration of stay in service delivery point (SDP)	1st visit	2nd visit	3rd visit	Notes
5	Indonesia	24 hours (varies – could be extended if problems arise)	First week: – mother: Day 3 – newborn: 6- 48hrs	Mother: Day 14 Newborn: Day 3- 7	Mother: around Day 42 Newborn: Day 8- 28	Care for mother and baby by: community midwife.
6	Maldives	24 hours if uncomplicated	Third day after discharge	After 2 weeks	After six weeks: mother and baby visit SDP	Care is by obstetrician, pediatrician, medical officer, family health worker. In atolls: at least one visit to health facility and then follow-up home visits by TBAs and family health workers.
7	Myanmar	24 -48 hours if uncomplicated	First day	3- 5 days	Six weeks	Care by: medical officer or specialists if in health facility.
8	Nepal	24 hours (recommended); 5- 7 days for C-sections as per policy (less in practice)	24 hours (home deliveries)	Third day	Seven days	Care for mother-baby dyad at SDP by specialists and doctors, visits by community health workers/ volunteers. After six weeks: immunization and FP services.
9	Sri Lanka	24 hours (less in practice); 48-72 hours if complicated.	First three visits within 10 days	10-28 days	29-42 days	Care for mother-baby dyad by: public health midwife, nurse and medical officer.
10	Thailand	48 hrs if uncomplicated; 3- 5 days for C-section (policy and practice).	48 hours (while in SDP)	1- 2 weeks	4- 6 weeks by registered nurse	Visit by registered public health nurse.
11	Timor- Leste	24hrs if uncomplicated: 4- 5 days for C-section, varies.	Within first week	Two weeks	before six weeks	Care by: midwife, medical officer, specialists (varies by level of care).

- Lack of experience in using problem analysis approach to improve the coverage and quality of MPS/RHR services
 - Inadequate supervision, monitoring and technical support at the sub-national level
 - Poor recording system at all levels.
- iii) Inadequate technical capacity at all level:
- Knowledge and skill of MPS and RHR programme managers at all levels need to be improved (Timor-Leste)
 - Capacity in data management, analysis and utilization need further improvement.
- iv) Poor implementation:
- Work overload
 - Insufficiency of health staff.

Future plan

- i) To continue support to priority activities:
- Recruit an expert in programme management (Timor-Leste)
 - To adapt training such as mid-level manager training.
- ii) Strengthen supervision/monitoring/evaluation
- iii) Develop clear mechanism for reporting and recording system
- iv) Strengthen coordination and collaboration of HMIS and MCH/RHR departments.

Development of framework of indicators to monitor maternal health

Indicator	Action Plan
	Interprogramme (MoH) and intersectoral (FPCB, Ministry of Women Empowerment, Ministry of Education, professional organizations, faith-based organizations) coordination
	Drafting data collecting system in National Policy and Strategy in Reproductive Health
	Obtaining ABR data through Adolescent Health Programme Recording Reporting System
	Monitoring and evaluation
FP Unmet Need	Assesing existing systems for data collecting and measuring FP unmet needs
	Advocacy to policy makers regarding the importance of FP unmet needs toward improving RH/Maternal Health
	Interprogramme (MoH) and intersectoral (FPCB, Ministry of Women Empowerment, Ministry of Education, professional organizations, faith-based organizations) coordination
	In collaboration with other related stakeholders, MoH managed one-door FP data collection and analysis
	National FP programme data collecting
	Monitoring and evaluation

4. Myanmar and Timor-Leste: Maternal health

Challenges in current data collection system and how to strengthen data collection:

- i) Clarify key MNH indicators and its documentation: definition (ANC, PNC, SBA for Timor-Leste), data collection procedures and data utilization.
- ii) Poor programme management capacity at all levels:

* The information from Bangladesh and DPRK were provided outside of the meeting.

- It was recommended that the PNC guidelines should reflect three types of deliveries: institutional, home delivery by skilled birth attendant (SBA) and home delivery by traditional birth attendant (TBA) to address the situation and the needs in the countries.
- With regard to institutional care, the minimal requirement for uncomplicated cases should include immediate post delivery check up, repeat check up after two hours and then before discharge.
- Other issues: day of visit for early PNC, type of provider who should do it, male or female provider's preference, cases of rape, maternal well-being, mother-baby bonding, adolescent mothers, domestic violence and sexual abuse, ensuring quality of care through setting and implementation of standards of care, monitoring and supervision at various levels and the role of public and private sectors in provision of PNC.
- Functions and roles of TBAs in the countries: the examples of a successful SBA-TBA partnership in Indonesia were cited where the SBA is primarily responsible for assisting the delivery, while the TBA assists the SBA and takes an active role in postpartum care of the mother and baby and in health education of families. Such care may include providing emotional support to the mother, cleaning the baby, helping the family members in preparing hot water, food, etc.
- All groups agreed that the first 24 hours after delivery are critical to prevent postpartum haemorrhage and

shock. All women with institutional deliveries must stay in hospital for at least 24 hours.

In summary, it was agreed that professional supervision and care is essential during the first 24 hours after delivery as part of immediate postnatal care. Later, postnatal contacts were discussed but no conclusions made due to lack of evidence and diversity of country situations.

Day 1 consensus:

- First 24 hours after childbirth are crucial to maternal and newborn survival
- It should be ensured that mother and baby are under professional supervision at least in the first 24 hours

4. Theme II: Prevention and treatment of postpartum haemorrhage

4.1 Introduction of WHO guideline on prevention and treatment of postpartum haemorrhage

Dr Matthews Mathai briefed the participants on WHO’s guideline development process which was through a series of consultations with global experts and a systematic review of literature on prevention and management of postpartum haemorrhage (PPH). PPH is the leading cause of maternal mortality worldwide, but is higher in low-income countries and very high in some countries of the Region. Evidence-based guidelines indicate that injectable Oxytocin is the drug of choice as it has minimal side effects, is cheap, available and most

- % of facilities providing AFHS
- % of health providers trained in AFHS.

3. Indonesia: Family planning

Indicators

Area	Indicators	Problems
Family Planning	Adolescent birth rate (age-specific fertility rate for ages between 15-19 yrs)	<ul style="list-style-type: none"> ➤ Cultural barrier ➤ Interpreted as low priority Family/community stigma ➤ Not listed in the HMIS and DHS ➤ Taboo
	Sexually active women between 15-49 years at risk of pregnancy, not pregnant, not on contraception, non-lactating, who report trying to become pregnant for two years or more	<ul style="list-style-type: none"> ➤ Access problem ➤ HMIS vs FPCB reporting system ➤ Self-reliant for FP services ➤ Not regularly monitored ➤ Family vs programme interest

Action plan

Indicator	Action Plan
Adolescent birth rate	Assesing the current status of adolescent birth rate (ABR)
	Advocacy to policy makers to include ABR as an essential indicator for RH
	Establish group work for developing mechanism and data collecting system for ABR

2. India: Gender and adolescence

Current surveys for obtaining core indicators are NFHS (every five years), DLHS (every three years), SRS (every three years) and monthly data collection from the public system at all levels. A web-based HMIS has been launched recently. Core indicators being monitored are: MMR, births attended by SBA, ANC coverage, NMR, CPR, unmet need for FP and adolescent birth rate.

Gender indicators are already in the system:

- Sex ratio between 0-5 yrs
- % of girls between 15-17 years who are in school compared to boys
- Currently married women who are participating in household decisions/income contribution
- % of currently married women married before age 18
- Ever married women who have ever experienced domestic/spousal violence

Additional Indicators:

- Number of reported cases of rape and prosecution
- Birth rate of women between 15-19 years
- Women and men aged 18-24 years who became parents before legal age
- Age-specific use of spacing FP methods.

Indicators to be developed:

- % undergoing family life education

nurses can administer it at all levels. Ergometrine is also effective, but has side effects of nausea and vomiting and is not used if the woman has high blood pressure.

Dr Mathai presented evidence that Misoprostol should not be used except where the other drugs were not available or there was no SBA to administer the drug of choice. He said that the original recommendation for Misoprostol use was based on an Indonesian study, which actually showed no significant advantage of Misoprostol, while other studies have shown that it actually caused more blood loss, fever and rigors than other oxytocics while the costs are higher. The facts from the Region were shared:

- Misoprostol is recommended for PPH *prevention but not for treatment* in India by auxiliary nurse-midwives at sub-centre level; Nepal, through community-based action by family and community health volunteers in remote areas; Myanmar, by auxiliary midwives in township hospitals; Indonesia, through community-based action initiated by professional organizations in collaboration with the Ministry of Women Empowerment and women's organizations.
- Ergometrine is used for prevention of PPH in Sri Lanka and Thailand.

The latest WHO recommendations on Prevention and Management of PPH were distributed to all participants. It recommends:

- Injectable Oxytocin 10 IU as drug of choice.
- Misoprostol should be used only if Oxytocin is not available.

- The combination of Oxytocin and Ergometrin has no advantage over 10 units Oxytocin though might if 5 units of the latter are used alone.
- Intra-umbilical Oxytocin can be used to remove retained placenta.
- Crystalloids are intravenous fluids of choice.
- Late cord clamping is correct with a few exceptions.
- There is no significant gain by measuring blood loss except clinically.

National guidelines and implementation practices on prevention and management of PPH were presented by the representatives from the health ministries of India, Nepal and Myanmar. These were followed by discussions and the following issues were noted:

- PPH prevention and management protocols should be included in pre- and in-service training.
- On prevention of PPH:
 - According to studies by pharmaceutical companies, Oxytocin is quite stable for one year if refrigerated, and loses only 4-5 % of its potency if kept in shade as is common in labour rooms. It can be kept in a simple water cooler to maintain potency, while heat-stable varieties were being looked into by researchers.
 - In the absence of personnel to offer active management of the third stage of labour, it is recommended that the trained health worker offer Misoprostol 600 microgram orally immediately after

Annex 1

Group Work 3: Development of Framework of Indicators to Monitor MDG5

For this Group Work, each country team focused on one aspect of reproductive health.

1. Bhutan: Cervical cancer and genital tract cancers

Indicator	Category	Definition	Data source	Responsibility
Number of facilities	Coverage	Facilities providing Pap smear/VIA	RH Programme	RH Programme
Number of cyto-technicians trained	Coverage of training	Number of new cyto-technicians trained	RH Programme	RH Programme
Number of female nurses who can do Pap Smear (PS)/Visual Inspection with Acetic acid (VIA)	Coverage	Number of nurses trained to do PS/VIA	RH Programme	RH Programme
% of women screened	Coverage	Women between 20- 60 yrs screened	Annual cytology reporting	RH Programme Cytology Unit (NRRH)
% of unsatisfactory smears	Quality	Not being able to read slides	Annual cytology reporting	RH Programme Cytology Unit (NRRH)
% of abnormal reports	Coverage	Includes Bethesda reporting	Annual cytology reporting	Cytology Unit (NRRH)

- with regard to the postpartum haemorrhage prevention and treatment the evidence is there, which lead to programmatic actions that need to consider respective country health systems, aspects of human resources, cost-implications, logistics systems and referral linkages in order to improve quality of care and save mothers' lives;
- also had a chance to look into the indicators related to the MDG 5B target, which is achievement of universal access to reproductive health by 2015 and strengthening national level monitoring.

Dr Latief commended the participants for their hard work during this intensive three day technical consultation. She emphasized WHO's commitment to assist countries in attaining MDGs 4 and 5. The current programmatic attention is to improve access to quality maternal and newborn health through primary health care and health systems strengthening. She reaffirmed WHO's technical and financial support for country action plans identified during the consultation for the improvement of MNH services (including PPH, PNC) and a broad spectrum of RH programmes.

Furthermore, Dr Latief underscored the importance of WHO, UNFPA, UNICEF and other partnerships working with the governments and their concerted efforts to improve maternal and newborn health. It was noted that the consultation once again reflected this effective collaboration and partnership. She thanked the country participants and the representatives from the UN partner agencies (UNFPA and UNICEF country offices and the UNFPA Regional Office in Bangkok) for their active participation.

the birth of a baby. In such cases no active intervention to deliver the placenta should be carried out. This recommendation was based on current best evidence and it is understood that there are ongoing studies awaiting publication.

Misoprostol was not included in the current WHO Model List of Essential Medicines as the estimates of its efficacy compared with placebo are not consistent across trials. There is also a significant risk of increased shivering and fever and there is an unresolved concern of a possible increase in the risk of maternal mortality. The Expert Committee will reassess Misoprostol for this indication following the publication of ongoing/completed studies.

Facts about PPH

- PPH is the major cause of maternal death:
 - Two thirds of haemorrhage-related deaths are due to PPH
 - Two thirds of PPH are due to atonic PPH.
- Active management of third stage of labour (AMTSL) reduces PPH by 62% (95% Confidential Interval: 44-68%):
 - Uterotonic administered immediately after birth of baby
 - Cord clamping and cutting
 - Delivery of placenta by controlled cord traction followed by uterine massage.
- WHO recommends that **active management of the third stage of labour should be offered by skilled attendants to**

all women.

- On treatment of PPH:
 - The use of Misoprostol in addition to other injectable uterotonics is not recommended since it does not provide any additional protection.
 - In the absence of any other uterotonic or if all other measures fail, Misoprostol can be offered at a dose between 200-800 microgram orally or sublingually as a last resort.
 - Temperature above 40° Celsius and altered consciousness has been observed with doses of Misoprostol 800 micrograms or higher.
 - Participants argued that bimanual compression of uterus to control PPH was seen as one of the important methods to control PPH while waiting for transfer or surgical treatment along with tamponade – used in some countries of the Region (e.g. Bhutan, Nepal, Sri Lanka). It was agreed that case series should be used to make recommendations on rare events.
- Community distribution of Misoprostol for prevention and treatment of postpartum haemorrhage:

WHO does not recommend distribution of Misoprostol to community-level health workers or women and their families for routine or emergency use. WHO recommends research at the community level to investigate how PPH can be managed effectively at this level.

6. Conclusions and closing session

Closing remarks were made by Dr Dini Latief of SEARO and Dr Katherine Ba-Thike representing the WHO-HQ Team. Dr Ba-Thike pointed out that the consultation provided a platform to discuss multiple issues related to postnatal care and prevention as well as management of postpartum haemorrhage, the lead obstetric reason of maternal deaths. These issues included reviews of WHO recommendations and national practices on the prevention and management of postpartum haemorrhage; as well as standards, timing, and contents of postnatal care. The participants shared information on PNC policies and practices that varied widely among the countries.

A consensus of the consultation is that the first 24-hour is crucial for the lives of both mother and her baby, and that professional supervision was important, especially within the immediate postpartum period. It goes beyond the scope of this consultation to agree on the content and timing for the later PNC observations. While WHO has started the process of reviewing PNC core care standards, it is important for the countries to continue the process of improving PNC in their respective countries. Dr Ba-Thike concluded that the discussions during the consultation:

- helped to reveal the areas for technical and programmatic attention to postnatal care, which is to be given more attention while – at the same time – it should be placed within a continuum of care approach, as a package of antenatal, intrapartum and postnatal care;

indicators, one or two, which have shown limited progress and prepare an action plan/proposal in introducing identified solutions to address identified issues.

Through this exercise the country teams were able to draft outlines of proposals and/or discussion points to be carried out with their respective ministries for improving national monitoring. Country presentations were made – at a random selection – by the teams from Bhutan, Indonesia and Sri Lanka. The objectives of the proposal from Bhutan was to review the MDGs 4 and 5 indicators that are currently in use in Bhutan and to develop strategies to improve data collection using the existing systems. Reporting systems are well established in Sri Lanka and for the MDG 5B reporting the next steps was to prioritize indicators, agree on definitions, data sources and target setting for both national and sub-national levels. Improvements in hospital statistics and vital registration systems were defined as crucial, besides mainstreaming the MDGs monitoring plan in the national, provincial and district MNH strategic plans.

Indonesia outlined challenges and activities to overcome problems in relation to the availability of indicators related to family planning, adolescent pregnancy and unmet need for family planning. Cultural factors (taboo and stigma), as well as the perception of family planning as a low-profile programme were cited as obstacles in achieving relevant MDG 5 targets.

The country participants were encouraged to hold further discussions with the relevant authorities and technical staff to further refine the proposals for possible funding. WHO (HQ and SEARO) and UNFPA informed the participants about the availability of funds to support country proposals.

Oxytocin (10 IU/IM) versus oral Misoprostol (600 mcg) for PPH prevention

- Misoprostol is associated with more blood loss (more than 1 litre, 1.3 times); use of additional uterotonics (1.4 times); shivering (3.3 times); diarrhoea (2.5 times); increased temperature (more than 38° C, 6.6 times).
- No difference in blood transfusion.
- WHO recommends that **Oxytocin should be offered in preference to Misoprostol for prevention of PPH.**

Treatment of PPH

- Oxytocin is the uterotonic of choice for treatment.
- When PPH occurs following AMTSL with oxytocin, continue with oxytocin infusion
 - No additional benefit with adjunct Misoprostol.
- When PPH occurs in the absence of AMTSL, use only oxytocin for treatment
 - Misoprostol associated with more additional blood loss
 - More side effects with misoprostol, i.e. high temperatures more than 40°C.

4.2 Group Work 2: Preventing postpartum haemorrhage and reducing its case fatality rate

Each country team developed plans for active management of the third stage of labour (AMTSL) and treating PPH at different levels of care. Also, data collection and analysis of information on case fatality rates and maternal deaths due to PPH at national and sub-national levels were discussed.

Ensuring the implementation of AMTSL by skilled birth attendants was a blueprint of the country action plans to prevent postpartum haemorrhage. To achieve that, India's team developed a detailed plan for capacity building through training, e.g. pre-service training for doctors, nurses, auxiliary nurse-midwives (ANMs) by involving the medical and nursing councils; to continue with in-service training to upgrade skills (both public and private health workers). The Government supports a three-week training module for medical officers and ANM/nurses in the public sector. This should be supported by the Government through a policy decision to implement AMTSL and declare PPH prevention as a national priority; sensitization of staff at all levels and logistic support to ensure availability of commodities and essential medicines.

Likewise, the Thailand group emphasized the importance of political commitment and a consistent integration of AMTSL into the clinical guidelines, nursing, medical curricula, hospital accreditation tools, including training and supervision at all levels to encourage universal implementation of AMTSL.

The team from Maldives said that the ante- and post-natal care guidelines were in the process of development. They also noted that presently trained TBAs were posted in the atoll and island health facilities for PPH management at the community level: the protocols for the TBAs were being developed where the role of TBAs was to detect the danger and call for help of skilled professionals for management of PPH. The Maldivian team also highlighted the high staff turn-over rate and the need for introduction of local protocols for expatriate staff.

The Myanmar team listed the following main programmatic components in their plan: establishment of a protocol on AMTSL

key indicators considering this fact. The national monitoring plans should have targets set for key indicators.

5.2 Group Work 3: Development of framework of indicators to monitor MDGs 5

For this group work all country participants were requested to review current country systems for obtaining core indicators. Each country was also assigned to identify additional indicators on elements of reproductive health, their definition, data source and responsibilities for data collection and interpretation, as follows: for Bhutan: cervical cancer and genital tract cancers; India: gender and adolescence; Indonesia: family planning; Myanmar and Timor-Leste: maternal health indicators; Nepal: abortion; Sri Lanka, Maldives: newborn health; Thailand: STI and HIV. The presentations by the groups are provided in Annex 1.

5.3 Group Work 4: Development of country work plans to improve RH data collection

This group work aimed at assisting the participants to outline proposals for funding to improve national-level monitoring of universal access to reproductive health (MDG target 5B). The participants had two choices: (a) to identify one or two key priorities among the outcome/impact indicators from the WHO/UNFPA Indicator Framework and corresponding interventions with reference to the document that were necessary to improve the selected priority outcomes. Each country was to identify main problems in relation to the availability of indicator(s) and develop an action plan to address them, or (b) to identify among the selected input or process

STI/RTI	Policy on STI control (different population groups)	PHC SDPs providing comprehensive case management	Condom use in last sex	Men reporting urethritis episode
Sexual health	School-based SRH education is mandatory	No. of providers trained in youth-friendly services	Adolescents receive comprehensive sexuality education	Adolescent birth rate

Lack of capacity to interpret data at sub-national levels/sub-populations; fragmented data collection systems due to vertical programmes and the need for harmonization were cited as some of the programmatic challenges in interpreting RH data. While selecting indicators, it is crucial to consider data availability, its quality and sources, alternative ways of data synthesis in cases where data are not available or are of questionable quality. Impact indicators need to be interpreted together with outcome indicators, e.g. skilled attendant at delivery and maternal mortality.

At the national level a wider set of indicators is selected according to priorities and needs – e.g. uptake of HIV testing in HIV prevalent countries, caesarean rates keeping in mind concerns of under-use or over-use, syphilis in pregnant women (congenital syphilis), etc. The WHO/UNFPA indicator framework is useful for diagnosing reproductive health issues at country level and in designing intervention packages and programmes. Some aspects of reproductive health are amenable to health care, others need more structural changes. Countries should select

for prevention of PPH: skill-based training of SBA on AMTSL; supervision and monitoring using checklist by supervisors. In addition, provision of regular and adequate supply of essential drugs and ensuring safe blood supply was prioritized along with collaboration with NGOs and other partners for improving transportation to referral centres.

Nepal, in addition to building capacity through pre- and in-service training of doctors, nurses and ANMs on AMSTL, underscored the issues of adequate deployment of SBAs along with supportive supervision and on-site coaching. Strengthening supply of drugs, and necessary consumables was mentioned as a prerequisite for adequate management of PPH. Nepal's team recognized the role of public-private partnership (e.g. partnership of professional organizations, medical colleges, private hospitals and nursing institutions) as well as community involvement in addressing the problem. The current programme initiatives in Nepal use financial schemes to provide free maternity services to encourage women to choose health institutions for delivery. Another pilot initiative includes a community distribution of Misoprostol by female community health volunteers (FCHV) in mountainous districts and selected remote hilly areas. This programmatic choice was questioned by the participants, whereas the rationale behind this was, according to the rapporteur, to make available Misoprostol to the women where first choice uterotonics were not available. Most tertiary and primary level health facilities use Oxytocin and Ergometrine as uterotonics of choice, whereas Misoprostol use was being studied through a pilot as an alternative for hard-to-reach population groups.

In Bhutan, the policy encourages institutional delivery and cadres of health staff are trained either in pre- or in-service in

midwifery skills. There are two levels of care (a) home and basic health unit (BHU) and (b) comprehensive emergency obstetric care (EmOC) centres. Oxytocin is made available at BHU level and to be taken to home from BHUs. Monitoring of maternal mortality could be done through home/BHU reporting, hospital death reporting and an annual review of maternal mortality. There is monthly EmOC facility reporting where the data on unmet need for EmOC and the case fatality rate is presented.

Indonesia shared the results of an assessment of AMTSL practices conducted in 2006 in collaboration with POPPHI (Prevention of PPH Initiative). The assessment was done by direct observation of 104 home-based deliveries by community midwives and deliveries in 27 hospitals. In Cirebon District, 66% of midwives surveyed had been trained in AMTSL with 95% of Oxytocin was used and 5% of Oxyocin and Ergometrin combination. The results of observations in 27 hospitals (MOH-POPPHI, 2006) showed high compliance with basic AMTSL components, in particular the use of uterotonics. The plan on prevention and management of PPH by levels of care as outlined by the Indonesian team is shown below.

Level	Action	Monitoring
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needs and assess progress in sexual and reproductive health. All countries are required to report against the core set of indicators and thus this should receive priority. *Unmet need for family planning* and *pregnant women tested for syphilis* are the examples of core indicators. Countries with high coverage of reproductive health services and relatively developed health information systems could report on additional indicators (e.g. “women screened for cervical cancer”). There is also a set of extended indicators which are relevant to countries with particular problems (e.g. female genital mutilation).

An example with a range of indicators related to context (policy and social), access (availability, information and quality), utilization of services and health outcomes against each element of reproductive health is given in Table 3 below.

Table 3: Sample range of reproductive health indicators

	Contextual	Access	Use	Outcome
Maternal health	Anaemia testing as part of basic ANC package	EmOC availability	Facility delivery	Deaths due to postpartum haemorrhage
Family planning	Country funding for family planning	Unmet need for family planning	Contraceptive prevalence rate	Total fertility rate
Abortion	Legal status of abortion explicit	No. of facilities offering safe abortion services	Post-abortion FP counselling	Abortion-related maternal deaths

The MDG target 5B recognizes that care during delivery alone is not sufficient and that key components of reproductive health directly impact on reaching MDG 5. These core aspects of reproductive health are listed in the WHO Global Reproductive Health Strategy: i) promoting family planning; ii) improving maternal and perinatal health; iii) preventing unsafe abortion; iv) controlling sexually transmitted and reproductive tract infections and v) achieving sexual health (including adolescents). The universal access to reproductive health signifies: i) equal access to all aspects of reproductive health for everyone with equal need; ii) expanded coverage and reach of reproductive health services to achieve health; iii) progress can be monitored by appropriate provision of inputs; increased uptake; sustained usage of services and improved outcomes.

While selecting a set of indicators for national RH monitoring frameworks, countries should consider *core indicators* that are applicable to all (or most) countries and *additional indicators that relate to actions* that contribute to universal access. For countries where more progress has been made, other issues may arise and, therefore, require other specific indicators. There would be several layers of indicators, including national level targets, targets in countries – with disaggregated data – for sub-national levels and for sub-populations. One national monitoring plan would guide on definitions, numerator, denominator, data sources and frequency of data collection.

A WHO-UNFPA document on “National-level Monitoring of the Achievement of Universal Access to Reproductive Health” provides a common core set of indicators together with additional indicators for further reference. This would allow policy makers, researchers and health professionals to identify

Level	Action	Monitoring
Community	<ul style="list-style-type: none"> ➤ BPCR Program (IEC, health seeking behavior, community involvement) ➤ Competent provider (AMTSL, bimanual/aortic compression, tear suturing) ➤ Proper early detection of risk factors, PPH symptoms and signs ➤ Adequate supplies (Oxytocin, IV line/solution) ➤ Optimum and timely referral 	<ul style="list-style-type: none"> ➤ Local area monitoring MNH, HIS ➤ Partograph ➤ Medical record ➤ MCH Handbook ➤ Postnatal visit
PHC (Basic EmONC)	<ul style="list-style-type: none"> ➤ Competent provider (AMTSL, bimanual/aortic compression, tear suturing) ➤ Proper early detection of risk factors, PPH symptoms and signs ➤ Adequate supplies (Oxytocin, IV line/solution) ➤ Optimum and timely referral 	<ul style="list-style-type: none"> ➤ LAM MNH ➤ Partograph ➤ MCH Handbook ➤ Postnatal visit ➤ Facilitative supervision ➤ On the job training on BEmONC ➤ Maternal-Perinatal Audit

Level	Action	Monitoring
Hospital (Comprehensive EmONC)	<ul style="list-style-type: none"> ➤ Practice of AMTSL ➤ Competent provider ➤ Proper early detection of risk factors, PPH symptoms and signs ➤ Adequate supplies ➤ Blood transfusion ➤ Surgical procedures (B-Lynch Method, hypogastric and uterine artery ligation, hysterectomy) 	<ul style="list-style-type: none"> ➤ LAM MNH ➤ Partograph ➤ MCH Handbook ➤ Postnatal visit ➤ On the job training on CEmONC ➤ Maternal-Perinatal Audit

The team from Sri Lanka referred to improving the quality of services, adherence to the protocols and guidelines at all levels. At primary level the focus should be on early identification of risk factors, including anaemia correction. While at the facility, the priority was to address the issues related to health system, such as laboratory facilities, blood transfusion services, and those related to human resources. The monitoring plan included introduction of obstetric formats into the Health Information Management System and implementing the near-miss maternal case (severe maternal morbidity) surveillance.

Timor-Leste presented a detailed action plan which recognized the pivotal role of SBAs in the prevention and management of PPH. For skills building it was suggested to continue with the BEmOC and CEmOC training for all midwives and adaptation of WHO (PPH) guidelines to the country situation for advocacy and quality of care improvement purposes.

Community level actions included building community awareness and participation through the Integrated Community Health Services Programme and family health promoters. The plan indicated the need for technical/financial commitments from donors and respective UN agencies (WHO, UNFPA).

5. Strengthening national monitoring on reproductive health

5.1 Framework for national monitoring of universal access to reproductive health: MDG 5B

Dr Lale Say from the Department of Reproductive Health and Research, WHO/HQ, presented concepts and indicators for national-level monitoring of MDG5 related to improving maternal health with a focus on MDG 5B target, which is to achieve universal access to reproductive health by 2015 (Table 2 for the MDG targets 5A and 5B).

Table 2: MDG 5 Targets and Indicators

MDG 5: Improving Maternal Health		
Target	5A: Reduce maternal mortality by 75% from between 1990 and 2015.	5B: Achieve, by 2015, universal access to reproductive health.
Indicators	5.1 Maternal mortality ratio 5.2 Births attended by skilled health personnel	5.3 Contraceptive prevalence 5.4 Antenatal care coverage 5.5 Unmet need for family planning 5.6 Adolescent birth rate