Feasibility Study on Human Resources in Maternal Health with focus on Midwifery

Feasibility of professional midwives in Nepal

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Table of Contents

ACRONYMS

ANM	Auxiliary Nurse Midwife
BN	Bachelor in Nursing
B.P.K.I.H.S	B.P. Koirala Institute of Health Science
CTEVT	Council for Technical Education and Vocational Training
FIGO	Federation of Gynecology and Obstetrics
GON	Government of Nepal
HHESS	Himalayan Health & Environmental Service Solukhumbu
ICM	International Confederation of Midwives
ICN	International Council of Nurses
IOM	Institute of Medicine
MIDSON	Midwifery Society of Nepal
MDG	Millennium Development Goal
MMR	Maternal Mortality Ratio
MoHP	Ministry of Health and Population
MOU	Memorandum of Understanding
NAMS	National Academy of Medical Science
NSI	Nick Simons Institute
NGO	Non-Governmental Organizations
NHSP-IP	National Health Sector Programme- Implementation Plan
NHTC	National Health Training Center
NMR	Neonatal Mortality Rate
NNC	Nepal Nursing Council
PAHS	Patan Academy of Health Sciences
PCL	Proficiency Certificate Level

ToT	Training of Trainers
T.U	Tribhuvan University
SBA	Skilled Birth Attendant
SSMP	Safe Motherhood Programme
UN	United Nations
UNICEF	United Nations Children's Fund
UNFPA	United Nations Population Fund
WHO	World Health Organization

1 EXECUTIVE SUMMARY

In 2006, the *National Policy on Skilled Birth Attendants* was endorsed by the government of Nepal with a commitment to bring the achievement closer to reach the MDGs of improving maternal and newborn health. The shortage of Skilled Birth Attendants (SBA) was addressed through education, regulation; accrediting and licensing system to ensure safe practice. The major focus to date has been on the short term strategy of developing SBAs by providing a 2 months in-service training for already qualified doctors, nurses and Auxiliary Nurse Midwives (ANM) to enhance their midwifery skills. The policy also defines the long term strategy to sustain SBAs and to achieve that 60% of the deliveries are attended by qualified providers, through initiating the development of a cadre of professional midwives as a crucial human resource, for providing service, training and leadership in midwifery for the country.

Based on recommendations from various publications and workshops, UNFPA in collaboration with Family Health Division (FHD) appointed an international consultant to assess the feasibility to implement the long term measure in the SBA Policy (2006) in Nepal in November 2011. Within this context the general objective of the study was to explore the feasibility of establishing a professional midwifery workforce in Nepal. The result of the study aims to provide the government of Nepal with a guidance note that will assist with developing a strategy to extend, enhance and expand the impact of professional midwives to improve the maternal and newborn health in the country. The report details the findings and suggested recommendations to the government, development partners, professional organizations and Institutions for necessary priorities to develop professional midwives in Nepal.

KEY FINDINGS

- The SBA training programme was implemented by the MoHP in January in 2007, initially in 7 training sites and has gradually increased to 18 sites and about 2500 SBAs are trained. Since the inception of the programme, four follow up studies have been conducted and one SBA review workshop has taken place. The findings from these studies revealed in several of positive aspects of the training programme. Large gaps between the ultimate SBA training sites standards were however noticed and gaps in essential SBA skills were reported on. The result from these studies underpinned that further assessments were required to improve the quality of the training.

- There are a variety of pathways to become a staff Nurse with selected midwifery skills. None of these are however designed to prepare professional midwives in line with International Confederation of Midwives (ICM) *Essential Competencies for midwifery practice.* There is a draft Post Basic Midwifery curriculum developed in November 2011 which is intended to prepare those who have completed a Nursing Diploma (PCL) to become midwives. The programme builds on skills and knowledge developed to create shift in attitude, behavior and skills from nursing to midwifery.

- The purpose of a professional regulatory mechanism, whether through legislation or employment for midwifery practice is to protect the public from unsafe practices and to ensure quality of care. In Nepal, there is no existing regulatory framework to ensure that midwives/SBAs have appropriate standards and practice and are regulated to practice their full set of competencies. There is also no policy in place for recruitment, positions or job description for midwifery practice.

- There are 5 institutions with affiliated hospitals who have the strengths and capacity to function as piloting institutes for the Post Basic Midwifery Programme. There is a genuine interest and willingness to start the programme from all sites. An international midwifery faculty has shown interest in conducting capacity training in midwifery model of care for the faculty members.

RECOMMENDATIONS – Short Term

1. **To conduct a National Evaluation of the SBA programme**
   Such evaluation could serve as a guidance note to the government of Nepal for designing the new National in-Service Training Strategy for Skilled Birth Attendants beyond 2012.

2. **Develop Strategic Directions for Professional Midwives**
   For effective management of the midwifery workforce in order to enhance midwives' contribution in midwifery service, strategic actions in relation to: Training and Education, Legislation and Regulation, Policy and Planning, Deployment and Utilization and Professional Associations needs to be taken into consideration.

3. **Implement the Post Basic Midwifery Programme at the 5 assessed Sites**
   This would contribute to the Ministry's human resource development programme for maternal and infant health. The programme is building on international standards within the context of Nepal and would create professional midwives who are in line with the SBA long term policy. Capacity building of faculty members in terms of midwifery model of care is essential as well as development of training manuals and log books for the programme. The curriculum needs to be approved by the Nursing Council.

RECOMMENDATIONS – Medium-Long Term

- One Professional Midwife/ shift at all maternity units from District Hospital to Tertiary Level
- Professional Midwives as SBA trainers at all SBA training sites
- One Professional Midwife/District Health Office

2 INRODUCTION

Midwifery personnel have long been acknowledged as a cornerstone for safe motherhood. Evidence demonstrates that access to midwifery is the key to safe pregnancy and childbirth and that developing midwifery provision is essential for reaching the Millennium Development Goal (MDG) 5. It is widely recognized that investing in professional midwives has made a tremendous difference in many countries. Educated midwives provide excellent care and make a vital contribution to reducing maternal mortality in the areas where they serve. Professional midwives can prevent up to 90% of maternal deaths where they are authorized to practice their competencies and play a full role during pregnancy, childbirth and after birth. They have a critical role in providing family planning, counseling, and preventing HIV transmission from mother to child.

Midwives provide professional care and advice for women during pregnancy, labour and the postpartum period, as well as the newborn care. Such services are crucial in Nepal, especially at the community level to ensure easy access to quality maternity and newborn health care. Currently only 19%[1] of all deliveries are attended by doctors, nurses or auxiliary nurse-midwives and the coverage of postnatal care are only 33%[2]. Consequently the maternal mortality ratio (MMR) is high (estimated at 281/100.000 live births[3]) and the neonatal mortality rate (NMR) is also high at 27 per 1,000 live births[4].

No woman should die trying to give life. The World Health Organization (WHO) recommends that a skilled attendant should be present at every birth. Increased investment is needed to provide midwifery skills and life saving services and to make midwives a priority within health programmes, policies and budgets.

[1] The State of the world Population, 2010
[2] Nepal Demographic Health Survey, 2011
[3] Nepal Demographic Health Survey, 2011
[4] The state of the world's midwifery report, 2011

3 BACKGROUND

In a joint statement in 2004 taken by WHO, United Nations Population Fund (UNFPA) and International Confederation Midwives (ICM)[5] a consensus was; addressing the shortage of midwives through midwifery education, regulation and association, would bring the achievement closer to reach the Millennium Development Goal of improving maternal health. Further, in 2006 an initiative was taken to strengthen the up scaling of the midwifery profession. UNFPA, WHO and ICM jointly with other partners launched an intensive country support to recognize the pivotal role of midwives in the role of reducing maternal and child mortality and morbidity.[6] To ensure that culturally appropriate evidence solutions were applied, global standards in midwifery education, regulation and development of midwifery associations were agreed to be followed.[7] [8]

Scaling-up the capacity and strengthening midwifery, is in line with various strategies and policy directions issued by several international and non-governmental organizations. Maternal and newborn health has been priority to Nepal for many years. In order to achieve MDG 5 and to reduce MMR to 134 from 281 per 100,000 live births by the year 2015[9], the Government of Nepal (GON) committed increased skilled attendants at birth to 60%. To achieve this target, the Ministry of Health and Population (MoHP) took the initiative to introduce the Skilled Birth Attendants (SBA) training and developed the *National Policy on Skilled Birth Attendants,* which is supplementary to the *Safe Motherhood Policy (1994).* This target was also reflected in the five years health sector strategy for Nepal - the Nepal Health Sector Programme Implementation Plan (NHSP IP-2) 2010-2015.

As a support to the SBA policy, the *National In-service Training Strategy for SBAs* (2006-2012) was endorsed and positioned the approaches and outlined plans, in line with the SBA policy, addressing the needs of existing public sector staff nurses, auxiliary nurse-midwives (ANMs) and doctors to enable them to be accredited SBAs with basic midwifery skills.[10] The initiative aimed at training ANMs and Staff Nurses with basic midwifery skills in order to increase provision of quality midwifery care at all levels. The strategy also underpins that the current ANM course will need to be increased to two years in order to include all essential basic competencies required to be trained as a midwife.

Likewise the policy defines the long term strategy through initiating the development of a cadre of professional midwives as a crucial human resource, for providing training and leadership in midwifery.

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[5] Critical Role of Skilled Attendants. A joint statement by WHO ICM FIGO. Geneva. WHO, 2004

[6] Scaling up the capacity of midwives to reduce the maternal mortality and morbidity. *Workshop Report New York 23-23 March 2006* (s. 52). New York: UNFPA, 2006

[7] Critical Role of Skilled Attendants. A joint statement by WHO ICM FIGO. Geneva, WHO, 2004

[8] The State of the world's midwifery report (SoMWy*).* New York, UNFPA, 2011

[9] Nepal Demographic and Health Survey, 2011

[10] Making Pregnancy Safer: the critical role of the skilled birth attendant. A joint statement by WHO, ICM and FIGO, 2004

4 RATIONALE

While the attendance of skilled personnel has increased from 19% in 2006 to 36% in 2011[11], there is still a long way to go, to achieve the national goal of 60% of births delivered by SBAs, by 2015. The recent workshop "*To review the implementation of the national status of the national SBA programme*" conducted in April, 2011[12] organized by the Family Health and Division and National Health training centre raised some concerns over that the ANM training is yet to be extended to a two years training as per suggested in the National Policy on SBA. In addition, the need to initiate the process moving the long term strategy forward through development of a 3 years post basic Bachelor programme in Midwifery was also addressed. Moreover the long term strategy in the SBA policy defines the process of initiating professional midwives as a crucial human resource for safe motherhood.

Likewise, in the publication *Human Resource Strategies: Options for Safe Delivery* by the GON, 2010[13] it was identified that it was a need of conducting a feasibility study of establishing a professional midwifery programme in order to achieve the long term measures of the SBA policy.

The National Skilled Birth Attendants Policy (2006) sets the long term strategy to develop an internationally recognizable midwifery programme in Nepal and suggests producing professional midwives in order to reduce maternal and infant mortality within the larger context of primary health care. In order to strengthen the capacity of the national health system in Nepal, in terms of cost effective options the government has acknowledged the vital to conduct a needs assessment and feasibility study addressing the pillars of a strong midwifery profession.

Within this perspective the general objective of the study was to explore the feasibility of establishing a professional midwifery workforce in Nepal. The result of the study aims to provide the government of Nepal with a guidance note that will assist with developing a strategy to extend, enhance and expand the impact of professional midwives to improve the maternal and newborn health in Nepal.

[11] Nepal Demographic and Health Survey, 2011
[12] To review the implementation of the national status of the national SBA programme, Workshop report, Nepal, 2011
[13] Human Resource Strategies: Options for Safe Delivery, Government of Nepal MoHP, 2010

5 OBJECTIVES AND METHODOLOGY

The key objectives as articulated in the terms of reference (Annex 1) are as follows:

1. To define the role, job functions and intended placements for the midwives
2. Establish norms for the number of midwives needed in the country
3. To explore legislative and regulatory frameworks to ensure midwives have appropriate standards of practice and are regulated to practice their full set of competencies as defined by the WHO and the ICM
4. To explain the essential skills and competencies needed for the separate cadre
5. To examine/identify which institutions that could educate the midwives and investigate whether the midwife teachers are competent in all aspects of midwifery practice. Recommend institution which can start this training and future expansion possibility with other institutions
6. Explore the costing of Midwifery training/schools
7. Define possible cost benefits of developing a separate midwifery cadre

5.1 STUDY DESIGN

The feasibility study was carried out by one international consultant in close collaboration with the Project Coordinator for MIDSON during the period of 14 November 2011- 2 March 2012. In order to conduct the feasibility study of establishing a professional midwifery profession in Nepal both quantitative and qualitative methodology was used. To meet the objectives a desk review of available documentation and data sources was conducted, as well as engagement of significant officials to explore the existing midwifery situation in the country.

5.2 DESK REVIEW

In consultation with the UNFPA country office in Nepal, development partners and professional organizations, available literature and other relevant documents such published articles, national workshop reports, SBA follow up reports, relevant policy documents and UN publications related to skilled birth attendance, professional midwives, midwifery education, regulation, and professional organizations were reviewed. In order to identify the gaps and explore the existing level of midwifery education, regulation and professional association; a follow up on the findings from the

ICM-UNFPA Gap Analysis in Dhaka, Bangladesh March 2010 was conducted. In addition, a rapid assessment approach[14] was used to identify the needs of strengthen midwifery in Nepal. The data received from the desk review were compiled, compared and analyzed based on international standards for midwifery education and practice.

5.3 DESCRIPTION AND PURPOSE OF THE STAKEHOLDER MEETINGS

The stakeholder meetings were attended by participants from various departments from the government of Nepal, professional organizations, Non-Governmental Organizations (NGO), UN agencies and bi-lateral organizations. The list of individuals who attended the meetings can be found in annex 2.

The purpose of the meetings were to introduce the feasibility study and to conduct a strategic mapping exercise with intention to identify different perspectives in relation to what has been done so far in midwifery in alignment with the SBA policy, what needs to be done within the next 1-3 year and what needs to be done right know in order to achieve the long term measure in the SBA policy. Beside this, strengths and weaknesses within the SBA program were also discussed.

5.4 SITE ASSESSMENT

Based on suggestions from the stakeholder meetings it was decided to conduct 4-6 site assessments including both academic and clinical sites in order to identify strengths and capacity of selected institutions to function as potential piloting institutes for the Post Basic Midwifery Programme. The site selection was done based on advice from Nepal Nursing Council. A range of five universities and five hospitals were chosen to cover the geographically area in the country. The selection criteria were that they had to be recognized teaching institutes with an interested and willingness to start the midwifery porgramme. The sites were:

- Patan Academy of Health Sciences, Kathmandu
- Patan Hospital
- Tribhuvan University, Institute of Medicine, Maharajgunj Nursing Campus, Kathmandu
- Tribhuvan University Teaching Hospital
- National Academy of Medical Sciences – NAMS, Kathmandu
- Paropakar Maternity and Women's Hospital, Kathmandu
- B.P. Koirala Institute of Health Sciences, Dharan (Eastern region)
- B.P. Koirala Central Teaching Hospital
- Nepalgunj Medical College, Kohalpur (Western region)
- Nepalgunj Medical College Teaching Hospital

[14] Strengthening Midwifery Tool Kit, WHO, 2011

5.5 THE SITE ASSESSMENT TOOLS

To identify the strengths of the institutions to meet the county needs for educate professional midwives, two different checklists were constructed. The checklists aimed to capture the existing situation in terms of midwifery education both at the academic site as well as the clinical site.

The checklist developed to assess the academic site was adapted from the ICM Global standards for midwifery education[15] and modified into the context of Nepal. This tool was selected as the draft Post Basic Midwifery curriculum is building of ICM's global standards and it was therefore decided to assess the schools based on these set of standards. The assessment tool covered areas such; organizational structure, midwifery faculty, student body and resources and services. In order to assess the clinical sites, JHPIEGO's *Site Assessment of Maternal and Newborn Health Programs*[16] was adopted to fit into the context of Nepal. This tool was chosen as it is well recognized and proven with success in other countries. The clinical site assessment focused on available equipment and supplies for the birthing area. Further, general maternity data, human resource structure and caseload were assessed.

During the procedure of construction, the checklists were critically reviewed by representatives from Nepal Nursing Council, UNFPA, MIDSON and the national consultants who developed the Post Basic Midwifery curriculum.

5.6 DATA COLLECTION

The data collection took place during last week of December 2011 and lasted until the first week of February 2012. The team, consisting of the consultant and the Project Coordinator at MIDSON were in contact with responsible authorities of each institution before the actual assessment took place. One week prior the assessment a letter was sent out to the Nursing Colleges in respective universities explaining the background and the objectives of the study. Data were gathered through interviews with the governing body of the university and hospital as well as with the principal and matron. In terms of equipment and supplies for the birthing areas, data were collected through observation.

[15] http://www.internationalmidwives.org/Portals/5/2011/DB%202011/MIDWIFERY%20EDUCATION%20PREFACE%20&%20STANDARDS%20ENG.pdf (accessed December, 2011)

[16] Site Assessment and Strengthening for maternal and newborn health programme, JHPIEGO, 2005

5.7 DATA ANALYSIS

All data from the site assessments were registered, documented and analyzed manually. The data were systematically described and summarized and presented through descriptive statistics.

5 FINDINGS

Nepal is in the initial phase to search for cost effective options to enhance the capacity of the existing service providers in order to build a sufficient educated cadre of professional midwives to improve the maternal and newborn health services in the country. Based on the terms of reference the data received from the desk review, stakeholder meetings and site assessments was compiled, compared and analyzed based on international standards for midwifery education and practice.

5.1 WHY FOCUS ON PROFESSIONAL MIDWIVES

Professional midwives are concluded to be the key to safe pregnancy and childbirth and to respond to the need of MDG 4, 5 & 6. It is widely recognized that investing in professional midwives has made a tremendous difference in many countries. Historical evidence tells us that ensuring skilled attendance at all births by professional midwives at the primary health care level combined with effective referral to facilities in case of complication has been fundamental in most of the countries that have succeeded in reducing maternal mortality and morbidity. The history of midwives in Sweden is particularly well documented and revealing in this respect. Most developed countries have followed a similar path to Sweden, as have some countries who were classified at the time of their success as low-income countries, for example Malaysia, Thailand, Tunisia, Sri Lanka, Jordan, Mexico, Cuba, and China[17].

The specific competencies of midwives played a key role in these success stories. Equally, because they held these competencies they were usually well respected and supported by their colleagues the gynaecologists/obstetricians and were considered part of the overall health system. Among the health professionals that classify as skilled birth attendants, midwives are unique in that their competencies[18] also encompass delivery of essential sexual and reproductive health (SRH) services at the primary health care level. Therefore, they can provide pregnancy and delivery care within the full package of SRH services, including family planning to prevent unwanted pregnancies and recourse to abortion.

[17] State of the World Midwifery Report, UNFPA, 2011

[18] *Essential Competencies for Basic Midwifery Practice* (http://www.internationalmidwives.org)

With formal training and support, midwives' competencies include skills in counselling women to make informed choices regarding family planning, provision of contraceptive methods, identification of reproductive tract infections and STIs and health promotion including education about reproductive health and HIV and AIDS. They also play an important role in post-natal and post-abortion care through identification and referral of women with complications from childbirth or unsafe abortion that can lead to death or morbidities, such as obstetric fistula. Midwives' counselling competencies can contribute to preventing women from becoming infected with HIV in pregnancy. Safe delivery practices implemented by midwives can also help to reduce transmission of HIV to the newborn.

The essential midwifery competencies also recognize cultural competency as crucial and include skills related to knowledge of cultural norms and practices surrounding sexuality, sexual practices and childbearing and provision of services that are acceptable based on prevailing social and cultural norms. Midwives have traditionally worked closer to the community than many other healthcare providers; they often work in close proximity to the women and families most in need. Their cultural competencies have enabled them to build trust with the community and as a result, serve as a liaison between the community and the formal health sector in many countries.

Investing in midwives has been identified as the quickest and the most cost-effective solution for scale-up in skilled attendance at all birth. In a shorter time span with fewer resources, midwives can be educated in the scope of practice across the continuum of care from pre-pregnancy to childhood. Midwives don't just deliver babies: they save lives and deliver health to the whole family and community and facilitate their access to the health-care system. Midwives play a most important role in the community, and offer woman-centered care.[19][20][21]

[19] UNFPA. (2011). *The State of the world's midwifery report (SoMWy).* New York.
[20] WHO. (2004). Critical Role of Skilled Attendants. A joint statement by WHO ICM FIGO. Geneva.
[21] Fauveau, V. S. (2008). Human Resources for maternal health: multi-purpose or specialists? . *Human Resources for Health , 6*.

5.2 GLOBAL STANDARDS FOR MIDWIFERY EDUCATION

Despite all global actions towards strengthening the midwifery profession, there is still in some countries a vast confusion what a midwife is and what she does. A major component might be the variation in educational level that is offered to become a midwife. Many countries still consider initial education programme at secondary school level to be sufficient, while some countries state university-level education as the minimum entry level. In 2009, WHO published global standards of initial education for nurses and midwives. These global standards were developed with inputs from ICM and International Council of Nurses (ICN) with the aim to establish competency-based outcomes and ensure future nursing and midwifery workforce to strengthen health systems to meet the health need of the population.[22]

Initial Education

The planned educational programme that provides a broad and sound foundation for safe autonomous practice for nursing and midwifery and a basis for continuing professional education. In simpler terms, "Initial education" refers to the first programme of education required for a person to qualify as a professional Nurse or Midwife

Global standards for initial education of professional nurses and midwives, WHO, 2009

In 2010, ICM launched the *Global standards for midwifery education,* and is one of the essential pillars to strengthen midwifery worldwide by preparing professional midwives to provide high quality, evidence-based health service for women.[23] These standards will help to set benchmarks for preparing midwives based on global norms. Further, the standards aim to support government and policy makers to define the expectations for performance and scope of midwifery practice for a given country. The standards include:

- Entry level of students is completion of secondary education
- Minimum programme length of a post-nursing programme is 18 months
- Minimum programme length of a direct entry programme is three years
- Theory and practice elements with a minimum of 40% theory and a minimum of 50% practice
- The midwife teacher has a formal preparation in midwifery
- The midwife clinical preceptor/clinical teacher is qualified according to the ICM *Definition of a midwife*

[22] Global standards for the initial education of professional nurses and midwives, WHO, 2009
[23] http://www.internationalmidwives.org/Portals/5/2011/MIDWIFERY%20EDUCATION%20GLOSSARY%20ENG%20FINAL12.5.pdf

According to ICM, UNFPA, WHO and FIGO a midwife is an accountable professional; she is an accredited health care provider and she holds a licensed and/or a registration to practice. She is a person who has met the ICM *Definition of the Midwife* (see figure 2) and has been educated and trained to proficiency in the ICM *Essential Competencies for Basic Midwifery Practice*. The title Midwife is therefore protected and indicates that the midwife fulfill the ICM identified core competencies and act as an autonomous professional.[24]

"A midwife is a person who has successfully completed a midwifery education programme that is duly recognized in the country where it is located and that is based on the ICM *Essential Competencies for Basic Midwifery Practice* and the framework of the ICM *Global Standards for Midwifery Education*; who has acquired the requisite qualifications to be registered and/or legally licensed to practice midwifery and use the title *midwife*; and who demonstrates competency in the practice of midwifery

Source: International Confederation of Midwives, 2011

Figure 2; International Definition of Midwife

5.3 CURRENT MIDWIFERY SITUATION IN NEPAL

5.3.1 EDUCATION

In order to respond to the growing health care needs of the people of Nepal through development of appropriate Human Resource for Health, GON started professional nursing training in 1956. The original idea was to produce different levels of nursing health professionals ranging from the grassroots, mid-level and the higher level, so that they could provide graded nursing care from the community to tertiary level under the National Health Service System. A system of professional and academic career ladder development has been inbuilt and ensured.

Midwifery education, and education programs designed to prepare professional midwives that fulfill international standards is yet in its early phase. However, there are a variety of pathways to become a nurse with selected midwifery skills in Nepal. There are 5 public universities with a number of affiliated nursing colleges and more than 100 private once, providing a combined nursing and midwifery programme. The length of pre-service education programs shows great variation according to policies of deployment of midwifery workers. The five most common types of training are:

[24] http://www.internationalmidwives.org/Portals/5/2011/MIDWIFERY%20EDUCATION%20GLOSSARY%20ENG%20FINAL12.5.pdf

1. Auxiliary Nurse-Midwives (ANMs), 18/29 months
2. Proficiency Certificate Level in Nursing (PCL), 3 years
3. Generic Bachelor in Nursing (BSc), 4 years
4. Bachelor in Nursing (BN), 2 years
5. Master of Nursing (Women Health and Development), 2 years

It appears that none of the above curricula covers the ICM basic competencies for midwifery practice. The international definition of a midwife is not officially recognized. The professional qualifications functioning as a classroom or clinical instructor is one level above the actual programme teaching. There is no formal preparation to become a teacher in either nursing or in midwifery. As there are no registered midwives in Nepal, the faculty members include predominantly of registered nurses. There is yet no separate midwifery programme although ear marked teachers are allocated for the midwifery section within the nursing programmes.

Table 1: The state of Nepal's midwifery education

Nursing programme	**Entry level**	**Length of programme**	**Hours of midwifery in the curriculum**	
			Theory	**Practical**
ANM	10th grade	18 months/29 months	167/195	561/624
PCL	10th grade	3 years	300	600-900
Bachelor of Science in Nursing	12th grade	4 years	260-300	700-840
BN	PCL nursing + 2 years of working experience	2 years	30-50	100-288
Master of Nursing (Women Health and Development)	BSc	2 years	200	750
SBA	ANM/Staff nurse	2 months	72	252
Post Basic Degree in Midwifery	PCL + 2 years of working experience	3 years	2800	1700

It has been acknowledged internationally that midwifery education should not be less the 18 months (for already registered nurses) or include minimum of 3000 hours[25] in order to cover the required competences for a professional midwife. The amount of midwifery hours within the curricula indicates that none of the programs fully cover ICM's Essential competencies for basic midwifery practice (Table 1). This was further confirmed in a desk review workshop on midwifery curricula held in September, 2011 organized by the Midwifery Society of Nepal (MIDSON). The exercise identified several of gaps including necessary skills and competencies in all curricula to prepare these professionals as skilled birth attendants. The findings from this workshop revealed in development of a Post Basic Bachelor programme in Midwifery.

Auxiliary Nurse Midwives

The program for basic education for ANMs falls under the authority of the Council for Technical Education and Vocational Training (CTEVT). The ANM programme is either 18 months or 29 months. The lowest level of primary education for entering into the programme is for the 18 month programme; Post School Level Certificate (10th grade) and includes 15 months of theory (40%) and practice (60%) in nursing and midwifery, followed by 3 months on the job training. The 29 months programme accepts students with a Pre School Level Certificate level and the technical context is more or less the same as the 18 months program. It covers 24 months of theory (40%) and practice (60%) of not only nursing and midwifery but also subjects such Nepali, English, science and math followed by 5 months on the job training. As table 1 show, the current curriculum includes approximately one full semester exclusively for midwifery. Both curricula were reviewed in 2005. The required academically qualification for teachers for the ANM programme is Bachelor in Nursing. The level of degree is Technical School Leaving Certificate (Nursing, ANM) and the ANMs are regulated under the NNC.

Presently there are about 35 institutes primarily run by the private sector and majority of these are located in the urban area. Out of these, 4 are under the ownership of the GON and are positioned in the remote region (Jumla, Dipayal, Kapilvastu and Morang). These GON sites are accredited by Nepal Nursing Council and the programme is supported with scholarship system that enables the recruitment of ANM students from hard to reach areas who are willing to go back to work in those parts after successful completion of their education. Through the programme, ANMs are prepared to serve from municipally level up to district level and have been recognized as the most reliable maternal health services provider in the community. The greater part of sanctioned ANM posts are in rural facilities.

[25] ICM Education Standing Committee: Guidelines for Midwifery Curriculum

Proficiency Certificate Level in Nursing (PCL)

The PCL nursing educational programme is affiliated with CTEVT and aims to prepare basic level nursing professionals with highest level of technical competence it also includes English, Nepali, Integrated Science related to Health. The main aim of the PCL nursing programme is to prepare a competent and self-reliant staff nurse who will be able to care for the health of the individuals, groups and communities based on the principles of primary health care approach. The lowest level of primary education for entering into the PCL programme is School Level Certificate (10th grade) and the programme consists of 3 years duration. The curriculum includes roughly 900 – 1200 hours in midwifery care (see table 1) which is equal to 22, 5- 30 weeks based on a 40 hours week. The midwifery component in the curriculum is divided by 40% theory and 60% practical and minimum 15 deliveries are required to conduct before graduations. In 2009 all 27 core competencies of a skilled birth attendant were incorporated into the existing curriculum. The required academically qualification for teachers for the PCL programme is Bachelor in Nursing.

Presently there are 90 institutes mostly run by the private sector and only a few are under the CTEVT. The institutions are mainly located in the urban areas. The PCL nurses are posted as staff nurses from electoral constituency level up to tertiary level.

Bachelor programme in Nursing

The bachelor in nursing programme falls under the Nursing Colleges and aims to prepare mid-level nursing professionals with highest technical and managerial competence in the respective level of health programs. There are two pathways to become a nurse on this level. The 4 years generic bachelor in science in nursing, (B.Sc) accepts students with a pass of 12th grade as the lowest level of primary education for entering the programme. The second alternative is a 2 years bachelor program for those nurses whom have completed the PCL in nursing

The amount of allocated midwifery hours in the two programmes varies. In the B.Sc the curriculum includes about 960- 1140 hours in midwifery care (see table 1) which is equivalent to 24- 28, 5 weeks based on a 40 hours study week. In the BN programme the number of hours allocated for midwifery is about 3 – 8 weeks. The graduates in both programmes are prepared to serve as service provider, educator, manager and basic level researcher at community up to tertial level including international level. The required academically qualification for teaching at bachelor level is completion of a master programme in any related field.

Master of Nursing (Women Health and Development)

The 2 years master programme is intended to prepare those nurses who have completed a Bachelor in Nursing and who have 2 years of clinical experience. The program aims to produce nurses to function at higher managerial level positions, teachers and to conduct research studies in women's health. The total weeks allocated for exclusively midwifery are about 23 weeks.

Skilled Birth Attendant Programme (SBA)

In order to increase the number of SBAs in the country a 2 months in-service course for ANMs and staff nurses was developed. The course aims to provide eligible public health providers with a basic competency based training to qualify as a SBA able to provide midwifery care. The course is designed to deliver competency based training covering 27 core skills based on the 2002 revision of essential midwifery skills. The programme emphases on providing care during the normal pregnancy and delivery as, postnatal care for the mother and her child and timely referral when needed. The total hours in midwifery is 324 (see table 1). All nurses who have fulfilled the 2 months programme will be counted as an indicator in MDG 5. There are about 18 sites up to date that run the programme.

Post Basic Programme in Midwifery

The draft Post Basic Programme in Midwifery (Bachelor in Midwifery), within the context of Nepal reflects the changing landscape of maternal and newborn health services to meet the MDG 4 and 5 through educating skilled professional midwives to provide quality maternity care in all settings. The Bachelor in Midwifery programme is intended to prepare those who have completed a Nursing Diploma (PCL) and who have had two years of clinical experience, to become midwives. The programme builds on skills and knowledge developed and create shift in attitude, behavior and skills from nursing to midwifery. The fundamentals of this shift focus on birth as a normal physical and psychosocial life event in which the midwife is a skilled, autonomous and insightful practitioner, working in relationship with the women, and families for whom she cares. She is skilled in both normal and complex birth as has life saving skills.

The programmes is building on international standards defined by ICM and WHO to prepare midwifery graduates to work to the full scope of practice as a professional midwives This programme is further aiming to produce leaders, advocates, collaborators and teachers, committed to the improvement of the health of the women of Nepal, both in urban and rural areas.

5.3.2 MIDWIFERY REGULATION

The aim of midwifery regulation is to support midwives to work autonomously and to promote an enabling environment so that midwives can work within their full scope of practice. The function of a legislative and regulatory framework is to ensure that midwives have appropriate standards of practice and are regulated to practice their full set of competencies as defined by the WHO and ICM. Licensing, registration and other standard-setting measures help governments to ensure quality of care.[26 , 27]

At this point there is no legislation in place that defines the authority to practice midwifery in Nepal. There are two types of registration under the Act of Nepal Nursing Council: ANM and Registered Nurse. Neither the ANMs nor the nurses have any authority for practice midwifery as defined in the ICM "definition of the Midwife" with or without additional SBA skills. Further there is no re-licensing procedure in place linked to continuing education and maintenance of competencies. Registration or licensure is the legal right to practice and use the title midwife. The existing curricula of the ANMs and Nurses are not developed on standards to match the' fitness for purpose" and there are no regular reviews of the curricula conducted. The curricula were till now not building completely on evidence –based standards for midwifery practice. The areas for midwifery and student clinical practice seems not fully to provide quality care or the experience required for demonstrating competent midwifery practice.

There is a policy in place in relation to number of midwives in clinical post but thus far to be implemented. As up to date there is no programme in place for formal preparation of midwife teachers to ensure that teachers are competent in all aspects of midwifery practice, education, including teaching and learning strategies, and have been adequately prepared for their post. The teaching and learning resources in the training centers seems limited in order to provide quality teaching. There is no specific job description available for the ANMs or nurses providing midwifery care in the community or at hospitals. In order to update competencies in midwifery the GON is providing a two months SBA course. There is no provision made for ANMs or Nurses providing midwifery services to participate in continuing education programmes for strengthening their capacity as midwives in Nepal. Further there is no plan in place for career enhancement.

By raising the status of midwives through regulation in Nepal, the standard of midwifery care and the health of mothers and babies will be improved. A well regulated midwifery workforce protects the public from unsafe practices by promoting quality services. This quality assurance is realized through ensuring the maintenance of high standards of practice, competency based education and the evaluation of outcomes[28].

[26] http://www.internationalmidwives.org/Documentation/ICMGlobalStandardsCompetenciesandTools/tabid/911/

[27] WHO. (2010). *Strengthening Midwifery toolkit.* Geneva: WHO.

[28] http://www.unfpa.org/sowmy/resources/en/standards_and_guidelines.htm State of the World's Midwifery 2011: Midwifery Standards and Guidelines

5.3.3 MIDWIFERY ASSOCIATION

Midwifery association has been identified as the third out of the three pillars (education, regulation and association) of a strong midwifery profession.[29] A well-built association gives midwives a sense of belonging and identity. It maximizes their contribution to the provision of maternal newborn and child health care within the context of their Ministry of Health's strategic plan.

MIDSON, a membership organization founded in 2010, represents nurses with a diploma, bachelor and master level qualification in midwifery, child and women's health, and also ANMs (Auxiliary-Nurse Midwives) and staff nurses who are providing maternal and newborn care. Its mission is to *contribute to the reduction of maternal and neonatal morbidity and mortality in Nepal by providing skilled compassionate care to women during the entire maternity and reproductive cycle.* Currently MIDSON has over 100 members.

MIDSON's ability to work with governments and stakeholders to develop national educational and regulatory plans to enhance the reproductive health of women was demonstrated in several of national workshops in the two past years. The association's accomplishments to date demonstrate its capacity to draw on a wealth of expertise and experiences within its members and beyond. Through different projects, MIDSON has worked at national level to increase the technical component of midwifery in various settings for the SBAs providing care in the hard to reach areas. Likewise the organization has taken part in regional and international conferences and forums related to midwifery education, regulation and strengthening of professional organizations.

The society has a clear vision and mission statement and a constitution in place. There is an existing board were the members are elected. There is an executive committee who has been elected through the Election Committee of MIDSON. There are at present four different sub committees serving under the board:

- Continue Midwifery Education Committee (CME)
- Publication Committee
- Advocacy and Networking Committee
- Fund raising Committee

The organization has a clear role description for the board and the executive members. All meetings are recorded by means of meeting minutes. MIDSON communicates with its members through different approaches such as email and newsletters. The decision making and strategic planning process is yet under development. MIDSON is working in close collaboration with other health care professional associations, government and ministries through which they have a potential role in policy development.

[29] http://www.unfpa.org/sowmy/resources/docs/main_report/en_SOWMR_Full.pdf

5.4 SUMMARY OF THE STAKEHOLDER MEETINGS

In discussion with stakeholders, many important aspects have been raised, however three primary sections focused on and in line with the SBA Policy became evident as solutions to establishing a professional cadre of midwives in Nepal.

1. Conduct a national SBA programme evaluation
2. Develop Strategic Directions for Professional Midwives
3. Implement the proposed Post Basic Midwifery Programme

5.4.1 CONDUCT A NATIONAL SBA PROGRAMME EVALUATION

In 2006 the Government of Nepal approved the National Policy on Skilled Birth attendants in line with the international recognition of the critical role of SBAs in reducing maternal mortality with a national target of 60% of births attended by a SBA by 2015; which means that approximately 5,000 SBAs will be required by 2012 in order to meet this target. This target was also reflected in the five year health sector strategy for Nepal – the Nepal Health Sector Programme Implementation Plan (NHSP IP-2) 2010 to 2015. As a support to the SBA policy the National in-Service Training Strategy for SBA (2006-2012) was endorsed and positioned the approaches and outline plans, in line with the SBA policy, addressing the needs of existing public sector staff nurses, auxiliary nurse-midwives and doctors to enable them to be accredited skill birth attendants. This in-service training strategy was developed with the goal that all eligible public health sector staff should receive the required competency based in-service training to qualify as SBAs able to provide quality midwifery care.

The SBA training programme was implemented by the MoHP in January 2007, initially in 7 training sites and has gradually increased up to current 18 sites around the country, each with a team of trainers and the capacity to provide didactic teaching with model practice and supervised clinical practice. This competency and skills-based training programme was developed with an emphasis on providing care during normal pregnancies, normal deliveries and postnatal care for the mother and her child. The SBAs are trained to identify risk factors during pregnancies and deliveries and provide first – line management according to national clinical protocol and perform timely referral in case of complications that will have a direct life-saving impact on the woman and her baby. As of December 2011, about 2500 SBAs had completed the basic training and registered as SBAs.

Since the inception of the programme, four follow up studies have been conducted. With the technical and financial support from Safe Motherhood Programme (SSMP), support was provided to the National Health Training Center (NHTC) in 2009 and 2010 to conduct a Follow-Up study. Further in 2010, NHTC conducted a Supervision, Monitor and Skill update of the SBAs working in different Level of Health Institutions of Nepal with support from WHO. Moreover, in 2011 Nick Simons Institute conducted a follow up & enhancement program study. The findings from these

studies revealed several of positive aspects of the training programme. Large gaps between the ultimate SBA training site standards were however noticed and gaps in essential SBA skills were reported on. It was underpinned that further assessments are required to improve the quality of training.

In this context, to improve the quality of training, curriculum, content, duration, performance, monitoring, utilization and sustainability of the SBA's, the crucial need of a national SBA programme evaluation was raised. Such evaluation could serve as a guidance note to the government of Nepal for designing the new National in-Service Training Strategy for Skilled Birth Attendants beyond 2012.

5.4.2 DEVELOP STRATEGIC DIRECTIONS FOR PROFESSIONAL MIDWIVES

To ensure quality of midwifery care, the magnitude of having the midwifery professional properly regulated with a legislation that recognizes midwives as an autonomous profession was articulated. The goal of the strategy would be to promote directions that protect the public (women and families) by ensuring that safe and competent midwives provide high standards of midwifery care to every woman. Five strategic directions were proposed for effective management of the midwifery workforce in order to enhance midwives' contribution in midwifery services.

A. **Training and Education:** Strengthen midwifery knowledge, skills, behavior and attitude to confidently perform quality maternal and newborn care services as per assigned responsibilities as per international standards.

B. **Legislation and Regulation:** Review and update the regulations under Nepal Nursing Council to enable the practice of midwives for midwifery services in order to safeguard the public

C. **Policy and Planning:** Develop and implement strategies for effective utilization in terms of recruitment, rotation, transfers, and retention of midwives as an integral part of the national human resource policy and workforce plan

D. **Deployment and Utilization:** Based on national human resource plan, develop and implement a deployment plan, job description including creation of positions of midwives to provide appropriate maternal and neonatal health services, including supportive working environments

E. **Professional Associations:** Strengthen national professional midwifery associations to promote and lobby the profession as well as establish closer collaboration with other professional organizations.

A: Training and Education

Strategic Direction 1: Strengthen midwifery knowledge, skills, behavior and attitude to confidently perform quality maternal and newborn care services as per assigned responsibilities as per international standards.

Strategic Actions:

- Finalize and implement the Post Basic Midwifery Programme based on international educational standards to meet the need of the country to reduce the high MMR, NMR
- Build capacity and increase number of Nursing Schools/Universities and midwifery teachers to educate increased number of professional midwives
- Develop scope for midwifery students to practice in specialized fields to practice new competences in maternal units
- Develop skilled midwifery teachers with formal teaching education to conduct the Post Basic Midwifery Programme

B: Legislation and Regulation

Strategic Direction 2: Review and update the regulations under Nepal Nursing Council (NCC) to enable the practice of midwives for midwifery services in order to safeguard the public

Strategic Actions:

- Amend and update NNC's rules and regulation to ensure midwives have appropriate standards
- Ensure midwives are regulated to practice their full set of competencies as defined by WHO and ICM
- Consider registration and licensing as well as future career advancement opportunity of Midwives

C: Policy and Planning

Strategic Direction 3: Develop and implement strategies for effective utilization in terms of recruitment, rotation, transfers, and retention of midwives as an integral part of the national human resource policy and workforce plan

Strategic Actions:

- Formulate policy for additional education for nurses to become professional midwives
- Finalize policy for recruitment, rotation, transfers and retention of professional midwives
- Develop and implement a strategic deployment plan and a job description, including creation of posts for midwives at all service levels

D: Deployment and Utilization

Strategic Direction 4: Based on national human resource plan, develop and implement a deployment plan, job description including creation of positions of midwives to provide appropriate maternal and neonatal health services, including supportive working environments

Strategic Actions:

- Incorporate the profession midwives including direction in deployment and utilization in the human resource plan
- Develop job description based on scope of practice for midwives in the maternal and newborn health service
- Identify and assign required numbers of midwives to meet the needs
- Establish a coordination mechanism among the MoHP and NNC to ensure the registered midwives are properly utilized
- Strengthen and improve the working environment in the health facilities to ensure appropriate infrastructure for optimal care and efficiency
- Establish a supportive supervision mechanism for the midwives working in midwifery services and also enable professional midwives to act as supervisors for SBAs providing maternal and neonatal health care at all levels

E: Professional Associations

Strategic Direction 5: Strengthen national professional midwifery associations to promote and lobby the profession as well as establish closer collaboration with other professional organizations.

Strategic Actions:

- Strengthen the national professional midwifery association to promote the profession
- Allow professional associations to participate in policy making at regional and national levels
- Establish closer collaboration between professional organizations that work in the field of maternal and newborn health care

5.4.3 IMPLEMENT THE POST BASIC MIDWIFERY PROGRAMME

In accordance with the long term measures of the National Policy on Skilled Birth Attendants 2006, and based on recommendations from the workshop "*To review the implementation status of the national SBA program*" a three year Post Basic Midwifery Programme was therefore developed and builds on global standards with the purpose of enhance skills and competences of professional midwives in Nepal. The curriculum was developed under the leadership of Himalayan Health & Environmental Service Solukhumbu (HEESS) with support of UNFPA.

The curriculum is building on a competency based approach and aims at educate midwives that will fulfill the ICM definition of Midwife, and will in the long term substitute nurses in labour rooms of institutions where midwifery education and SBA training are ongoing. The Bachelor in Midwifery programme is intended to prepare those who have completed a Nursing Diploma and two years of experience, to become midwives. The programme will build on skills and knowledge developed and create shift in attitude, behavior and skills from nursing to midwifery. The fundamentals of this shift focus on birth as a normal physical and psychosocial life event in which the midwife is a skilled, autonomous and insightful practitioner, working in relationship with the women and families for whom she cares. This programme will produce leaders, advocates, collaborators and teachers, committed to the improvement of the health of the women of Nepal, both in urban and rural areas. The programme will produce professional midwives that will have demonstrated competences to practice according to the *ICM Essential Basic Competencies for Midwifery Practice* in the context of Nepal.

During the discussions, it became apparent of the significance of moving ahead and take necessary steps in order to implement this programme in the very near future. It was further suggested to select 5-6 Universities to identify the strengths and capacity to functions as potential piloting institutes for the Post Basic Midwifery Programme. It was advised to assess 3-4 universities in Kathmandu Valley, as well as one university in the eastern region and one in the western region.

The implementation of this programme will contribute to the Ministry's human resource development programme for maternal and infant health. The programme is intended to contribute to the creation, establishment and support of midwifery education so that the country can establish midwifery leaders, service providers, supervisors, teachers and researches committed to the improvement of the health of the women of Nepal, both in urban and rural areas.

5.5 SITE ASSESSMENTS

This section of the report provides the findings from the site assessments carried out. The assessment of the institutions generated information and data, which gives a comprehensive picture of the existing situation and capacity to start the Post Basic Midwifery Programme. For more details of each institution please see separate annexes 3-8.

5.5.1 EDUCATIONAL ASSESSMENT

Organization and administration

All schools and their affiliated hospitals showed a genuine interest and willingness in piloting the programme at respective site. The schools had a clear defined vision, mission and objectives for their existing nursing/medical programmes. In order to train professional midwives, they all supported the suggested philosophy; aims and objectives of the midwifery education programme and expressed the value of adopting and fitting it in to the existing objectives of their school. Some of the schools had a designated budget for their existing programme needs with financial support from the government while others run their programmes only from students' fees.

In two schools an existing midwifery faculty was in place as a part of the college. In general the nursing faculties were governed by the Dean office. In terms of development and approval of a new curriculum, all schools had a mechanism in place for this purpose. The finale instance to get a new curriculum approved is at Nepal Nursing Council. Both national and international polices and standards were taken into account in the existing programmes, in order to reflect on maternity workforce needs. To learn and benefit from international experiences the institutions had signed agreements with individual foreign schools to promote cooperation and contact between the faculties and departments through student and faculty exchange, joint research activities, exchange of publications, reports and other academic information as well as other activities as mutually agreed. For further information see table 2.

Midwifery Faculty

A separate midwifery faculty including predominantly of midwives (teachers and clinical preceptors/clinical teachers) existed in two of the assessed sites. In all of the sites the nurses worked in close collaboration with experts from other disciplines which all held a graduate degree and possessed clinical and educational expertise in their specialty. There is no formal midwifery programme in the country and no national system to prepare teachers for nursing and midwifery, therefore it was noted a variation among the numbers of teachers that had undertaken a course in training of teachers (ToT). There were also noted a discrepancy in numbers of SBA trained teachers among the faculty members allocated for the midwifery subjects. However, in B.P Koirala for

example more than 50% of the teachers had a master degree in Maternal Health. Due to the current situation none of the teachers teaching in the midwifery subjects hold a license or a registration or other legal recognition to practice midwifery according to ICM definition of Midwife.

All teachers at the assessed sites also functioned as the clinical preceptor/clinical teacher and have numerous of years of full scope of practice in a variety of clinical areas. The midwife teachers provided education, support and supervision of the students in the practical learning sites. The teachers and the clinical preceptors were working together in order to support, directly observe and evaluate students' practical learning. On rotational basis the teachers were present at most of the shifts on labour ward. For further information see table 2.

Table 2, Illustration of the midwifery educational situation at the 5 assessed universities

Institutions	**Is a SBA training site**	**Run the BN/Bsc programme**		**Has a separate midwifery faculty**	**> 50% of Midwifery teachers have undertaken the SBA training**	**>50 % of the teachers have undertaken ToT**	**Adequate number of qualified teachers in place to run the midwifery programme**
		BN	**Bsc**				
Patan Academy of Health Sciences	No	No	No	No	No	No	No
Maharajgunj Nursing Campus, TU	Yes	Yes	Yes	Yes	Yes	No	Yes
NAMS, Nursing Campus	No	Yes	No	No	Yes	Yes	Yes
B.P. Koirala, Nursing Campus	No	No	Yes	Yes	No	No	Yes
Nepalgunj, Nursing Campus	No	Yes	In process	No	No	No	Yes

Student Body

All sites had clearly written admission policies for their existing programmes. Further, written student policies such expectations of students in classroom and practical areas, statements about students' rights and responsibilities, process for addressing appeals and grievances, mechanisms for students to provide feedback and ongoing evaluation of the curriculum, faculty and programme as well as requirements for successful completion of the programme were in place. For the purpose of the midwifery programme all these policies could be applied after necessary modification.

Additional, all schools offered a variety of practical experiences for the students in hospital and community setting to meet the health need of the Nepalese people, which is in accordance with the ICM scope of midwifery practice. The diversity of midwifery practical settings included hospital, clinics, primary health care centers, community and homes.

Resources, facilities and services

To run the Post Basic Midwifery Program it has been suggested to have policies that address student and teacher safety and wellbeing in teaching and learning environments. These policies include items such as safe travel/transport to practical sites, personal safety in community settings, precautions for blood borne diseases, management of sharp injuries, and immunization protection. Every assessed school had such policies in place for their existing programmes. For the purpose of the midwifery programme these policies could be applied to the programme.

Table 3, Illustration of existing resources, facilities and services of the 5 assessed schools

Institutions	Policies in place addressing student and teacher wellbeing	Access to a separate midwifery skill lab	>85% sufficient teaching and learning resources to meet the midwifery programme need	100% sufficient teaching and learning resources to meet the midwifery programme need	Adequate human resources to support classroom and practical learning	Sufficient midwifery practical experiences in a variety of settings offered
Patan Academy of Health Sciences	Yes	No	Yes	No	No	Yes
Maharajgunj Nursing Campus, TU	Yes	Yes	Yes	Yes	Yes	Yes
NAMS, Nursing Campus	Yes	Yes	Yes	No	Yes	Yes
B.P. Koirala, Nursing Campus	Yes	Yes	Yes	Yes	Yes	Yes
Nepalgunj, Nursing Campus	Yes	Yes	Yes	No	Yes	Yes

All schools had access to sufficient teaching and learning resources in terms of classroom space, computers and library including scientific journals and reference literature. In Nepalgunj for example, there was a separate midwifery skill laboratory but the equipment and materials to support students practical learning such a birthing models were very old and few. At NAMS, there was a functioning library but requires to be updated with more recent reference literature. At Patan there was for instance no separate midwifery skill laboratory, however, the equipment and learning resources for the medical students were up to date.

All schools applied support services such as financial aid (through scholarship) and individual counseling services to their students. For the existing programmes the schools had adequate human resources to support both classroom/theoretical and practical learning. Every one applied a programme budget sufficient for recruitment and especially retention of the faculty members.

Accommodation

All of the assessed sites provided some kind of accommodation facilities for their students. In the case of PAHS, further accommodation options will be considered prior the start of the midwifery programme. In the other cases, adequate numbers of rooms were available and equipped with beds, cupboards and chairs for each student. Sufficient number of bathrooms and common showers were offered and also accessible visitor rooms, kitchen and washing facilities. At majority of the hostels a cook was employed. In addition, extracurricular activities were offered for the students. The provided accommodation at each school was safe and secure for the students.

5.5.2 CLINICAL ASSESSMENT

The 5 assessed hospitals were all recognized 450- 1050 bedded teaching hospitals, classified as EmOC (emergency obstetric care) facilities providing care 24/7 and were functioning as referral hospitals. The hospitals provided services as primary care as well as specialty services. All hospitals except from the Maternity hospital were located within respective University campus.

Maternity Unit

All sites assessed provided antenatal, intrapartum and post natal care. The caseload was between 300-1900 deliveries per months, with a caesarian section rate between 15-30%. All normal cases were handled by the nurses. There was no specific job description developed for the nurses allocated on the maternity unit providing maternal care including conducting deliveries.

Human Resources

The hospitals seem to have a sufficient number of personnel providing care for the women and babies. The SBA situation according to the WHO calculation based on 1 SBA/ 175 births shows that the number of nurses and ANMs trained with SBA skills was few at all sites. The capacity in terms of staff varied between the sites depending on the number of deliveries and beds. The average number of nurses were about 3-4 nurses/shift. No vacancies were reported on. There was a clear supportive and collegial supervision mechanism in place. The number of students in the maternity was about 40-3815 on a yearly basis. Students were divided per three shifts and did not exceed 6 students at the time. The clinical teacher (same as being the academic teacher) covered labour ward each shift and worked in close collaboration with the students providing support and supervision.

Table 4: Illustration of number of births and the human resources at the 5 assessed hospital

Hospital	Number of nurses/ANMs in the maternity unit (ANC, intrapartum, PNC)	Number of nurses/ANMs with SBA skills in the maternity unit (ANC, intrapartum, PNC)	Number of approx births/year	Midwives/SBAs required	Number of students (nurses/medical) in maternity unit(ANC, intrapartum, PNC)/year
Patan Hospital	80	4	10 000	57	100
Paropakar Maternity and Women's Hospital	185	30	23 000	131	3815
Tribhuvan University Teaching Hospital	37	6	4 800	27	173
B.P. Koirala Central Teaching Hospital	48	2	12 000	69	67
Nepalgunj Medical College Teaching Hospital	15	0	3 600	21	40

Equipment and supplies for birthing area

Labor ward at all sites were well equipped in terms of facilities, equipment and adequate supply for demand. The equipment were maintained and worked correctly. Further, infection prevention, instrument birthing sets and sets for episiotomy repairs were all available per checklist. The records and forms for appropriate documentation were available along with protocols/guidelines for management of postpartum hemorrhage and preeclampsia etcetera. All deliveries were recorded and partographs were filled out with exception in Nepalgunj where partograph were not used but accessible. In terms of drugs/medications majority of items per checklist (annex 10) were available with an adequate supply and stored in appropriate storage.

6. PROJECTION IN TERMS OF NUMBER AND COSTING

The WHO standard for skilled birth attendance is 175 births per SBA per year, to ensure that SBAs retain their competencies in midwifery and have a realistic workload.[30] Based on the estimated births rate for 2011[31] this would give a figure of 4177 SBAs in Nepal. However this benchmark does not take into account those providers of midwifery services who do more than just attend births, for example by providing family planning and reproductive health service.

Table 5: Projection of Professional midwives trained in relation to number of students/number of universities

Number of years	**5 Universities/Institutions**		**10 Universities/Institutions**	
	20 Students/batch	**30 Students/batch**	**20 Students/batch**	**30 Students/batch**
5 years	300	450	600	900
10 years	800	1200	1600	2400

As per the long term measure in the SBA policy (2006) professional midwives were identified as a crucial human resource for safe motherhood, providing service and leadership in midwifery for the country. By focusing on professional midwives does not mean that Nepal should cut down the SBA training, rather the opposite. As per identified through the SBA follow up studies conducted in the past years, there is an urgent need for competent teachers, supervisors and support to be provided for the SBAs serving in the hard to reach areas.

Based on the projection in table 5, Nepal could in 5 years' time have 300-900 professional midwives educated depending on number of universities and intake per year. In a period of 10 years this

[30] Making Pregnancy Safer: The critical Role of the Skilled Attendant, a joint statement by WHO, ICM, FIGO, 2004
[31] Nepal Demographic and Health Survey, 2011

could generate in a number of 800-2400 professional midwives depending on number of universities and intake. Data about the actual number of nursing schools in the country were not available at the time of report writing, therefore no further projections calculated.

There seems to be a common practice at the schools in Nepal to practice the provision of different types of scholarship scheme. Applicants who belong or fulfill to certain criteria, set by each school are eligible to apply. In addition, an agreement is made set by funding source what the conditions are after completion of degree. This scheme could also be applied for the Post Basic Midwifery Programme.

Table 6: Illustration of 25% scholarship scheme for the full 3 year Post Basic Midwifery Programme

Number of intake of students/University/year	**5 Universities/Institutions**	**10 Universities/Institutions**
20	25 students/year	50 students/year
COSTING	**12,500,000**	**25,000,000**
30	35 students/year	70 students/year
COSTING	**17,500,000**	**35,000,000**

The scholarship scheme in table 6 illustrates a 25% quota system that could function as a strategy to commit the students to go back to their home districts to provide quality maternal health care. For instance, to secure PCL nurses from the remote areas into the midwifery programme, an agreement could be made with the Local Government Body or an organization to support students from a particular district. Based on the calculation in table 6; depending on number of intake per nursing school and number of schools running the midwifery programme this could mean that between 25-70 professional midwives could be trained per year distributed in the remote regions. The costing calculated is based on a student fee on 500,000 rupees/ three years.

7. CONCLUSION AND RECOMMENDATIONS

7.1 CONCLUSION

Based on the findings from the desk review, stakeholder meetings and site assessments it became evident that it is totally feasible to establish professional midwives in Nepal. The findings show that Nepal has already made some progress addressing the shortage of skilled attendants at birth through training SBAs, although earlier conducted follow up studies reported on gaps in quality, monitor and supervision. Professional midwives could therefore work in close collaboration with the SBAs and other professionals, as a fundamental step in improving maternal and child health. In addition, working as care givers, professional midwives could also function as teachers, managers and supervisors of the SBAs, providing care in the remote areas. Investing in pre-service midwifery education is an indispensable initiative in order to train skilled SBAs.

Nepal is at this point moving from only talking about SBA core skills to actually discuss about a full set of internationally recognized competencies which calls for protection of the title Midwife as a distinct profession. The result reveals that in order to bring the achievement closer to improve the health of mothers and babies in the country, midwifery needs to be addressed through the three interrelated pillars; education, regulation and professional association. This requires an attempt to educate professional midwives with a formal education, supported by a legislative and regulatory framework that ensures midwives have appropriate standards of practice and are regulated to practice their full set competencies. This process would be supported by an influential professional organization.

7.2 RECOMMENDATIONS Short Term

As per stated under the section summary from stakeholder meetings, three interrelated suggestions were made, see text box below. For further details please see the text related to the paragraphs under section 5.4.

1. To conduct a National Evaluation of the SBA programme

As per the SBA policy (2006) the medium term measures has yet not fully been implemented, therefore such evaluation could serve as a guidance note to the government of Nepal for designing the new National in-Service Training Strategy for Skilled Birth Attendants beyond 2012.

2. Develop Strategic Directions for Professional Midwives

The goal of Strategic Directions would be to promote directions that protect the public by ensuring that safe and competent midwives provide high standard of midwifery care. This document needs to propose strategic directions and priority actions that could be pursued to utilize the profession for achieving the MDG 4&5

3. Implement the draft Post Basic Midwifery Programme at the 5 assessed sites

- To start the programme at all sites would give a broad focus on the graduates as each university has different target groups
- Through a strategic network developed, the universities could support and stimulate each other which would increase the sustainability of the programme
- This would make the programme evaluation more substantial and reliable

3.1 Nursing Council to approve the Curriculum

3.2 Capacity Building of the Faculty members

- Capacity building in Midwifery Model of Care of the existing faculty members including selected clinical preceptors
- A Swedish Midwifery Faculty who already has a MoU with two of the assessed Universities has shown interest to conduct capacity training of required number of teachers

3.3 Develop training manuals and log books

7.3 RECOMMENDATIONS Medium – Long Term

1. **One Professional Midwife/ shift at maternity units from District Hospital to Tertiary Level**

2. **Professional Midwives as SBA trainers at all SBA training sites**

3. **One Professional Midwife/District Health Office**
   Providing supervision, monitoring and support for the SBAs

As there were no available data at the time of report writing in relation to number of nurses allocated for each maternity unit, from district hospital to tertiary level, this calculation was therefore not performed.

Annex1: **TERMS OF REFERENCE**

Feasibility Study of a professional midwifery course in Nepal

1. Background

In 2006 the Government of Nepal endorsed the National Policy on Skilled Birth Attendants (SBAs). This policy used the standard definition of an SBA as a qualified doctor, nurse or midwife who has received specific training in the defined SBA core skills. In Nepal, this includes Auxiliary Nurse Midwives who, with nurses are the main providers of safe delivery and emergency obstetric care services in rural areas. Following this, the National In-Service Training Strategy for Skilled Birth Attendants was endorsed and implementation initiated in 2007. This strategy outlines approaches for achieving the enormous task of training around 5,000 SBAs required by 2012 in order to meet the Millennium Development Goal target of 60% of all births attended by an SBA by 2015. Curricula and training materials were developed for courses ranging from 15 to 60 days to cater for the differing needs of doctors, nurses and ANMs with and without previous midwifery training.[32]

To date over 2200 SBAs have received training, with a focus on those with external project support and/or new infrastructure. Nurses and ANMs based in peripheral health facilities are a priority as they have previously received little support and yet are the front line service providers for needy rural women.

While there is a need to build the capacity of the maternity workforce in terms of quantity in order to reach out to all communities, it is even more important to consider quality. The debate on whether to prioritize quality or just have more numbers is at the heart of current discussions on skilled attendants, and strategic decisions are likely to have a strong impact on maternal mortality. Whilst everyone agrees it is not effective to look at human resources for health for a specific health issue in isolation, MNH-services do have several unique characteristics that require specific attention when making decisions about the size, shape and production of the midwifery workforce. Specifically the need exists for:

• High levels of technical competence

• Appropriate curricula that ensure sufficient time for hands-on practical

• Gender sensitivity.

• Excellent inter-personal communication and cultural competencies,

[32] **National Policy on Skilled Birth Attendants 2006** Ministry of Health and Population, Government of Nepal

• Motivation for the job[33]

Investing in professional midwives has made a difference in many countries. Midwives offer a low-technology but high-quality solution to the need for skilled care during pregnancy and birth, with the potential for meeting communities' broader reproductive health needs and contributing to universal primary health care for all. In particular, midwives can be most useful to help ensure that services reach those in greatest need, the poor and hard-to-reach communities.

In the National Skilled Birth Attendants Policy 2006 the long term strategy is to produce Professional Midwives to reduce Maternal and Infant Mortality within the larger context of Primary Health Care[1]. However no action has been taken up to now either by government institutions or non-government institutions in this regard.

2. Context of the feasibility study

Nepal health systems is facing considerable challenges and the government remains dedicated to searching for cost-effective options to enhance the capacity of national health systems to perform well. Hence, before a new training programme in midwifery is established it is crucial to conduct a needs assessment, and a feasibility study addressing the following vital areas:

1. *Education and training* –The essential competencies for basic midwifery practice

2. *Legislation and Regulation*-Strengthen legislative and regulatory frameworks to ensure midwives have appropriate standards of practice and are regulated to practice their full set of competencies as defined by the WHO and the International Confederation of Midwives (ICM).

3. *Recruitment, retention and deployment*—of the midwifery workforce, which is vital to increasing access to midwifery services for poor and marginalized women. Explore feasibility within the health system to employ this cadre of mid-wives and their career.

4. Job Description

1. Objectives of the feasibility study

To investigate the feasibility of establishing a professional midwifery cadre in Nepal.

The results of the study can serve as a guidance note to the government of Nepal for the future designing of a strategy to extend, enhance and expand the impact of the midwifery workforce to

[33] Fauveau V, Sherratt D, Bernis L: *Human Resources for Health* 2008, **6**:21 **"Human resources for maternal health: multi-purpose or specialists"**

build a sufficient cadre of midwives with the ultimate objective of upbringing the maternal and newborn health services in Nepal.

The ***specific objectives*** include:

1. To define the role, job functions and intended placements for the midwives.
2. Establish norms for the number of midwives needed in the country.
3. To explore legislative and regulatory frameworks to ensure midwives have appropriate standards of practice and are regulated to practice their full set of competencies as defined by the WHO and the ICM.
4. To explain the essential skills and competencies needed for the separate cadre.
5. To examine/identify which institutions that could educate the midwives and investigate whether the midwife teachers are competent in all aspects of midwifery practice. Recommend institution which can start this training and future expansion possibility with other institutions
6. Explore the costing of Midwifery training/schools.
7. Define possible cost benefits of developing a separate midwifery cadre.

2. Scope of work

The consultant is responsible for the following tasks:

1. Develop a detailed proposal for the study design consisting of research schedule, study instrument, methods of data collection, selection of interviewees, appropriate tools for data analysis, etc.
2. Discuss and agree in the team for the approach and methodology of the study
3. Conduct appropriate number of individual or group interviews with relevant persons from the central, regional and district levels, (interviewees to be suggested by UNFPA and DoHS)
4. Collect, manage and analyze all the data, and prepare the final report as per agreed outline
5. Present findings to UNFPA and other stakeholders (power point)
6. Meet strict deadlines for submission of the final study report

3. Qualifications

Education: Post Graduate University Degree or equivalent in nursing and midwifery with Public Health background.

7. Knowledge and experience

- 10 years of increasingly responsible professional experience in the substantive area
- Demonstrative expertise clinically as well as academically in the midwifery field.
- Preferably experience of working with national health sector programmes.

8. Time Frame

A timeframe of four months is proposed for this task.

9. Work plan

The consultant will prepare work-plan in consultation with the UNFPA country office.

10. Deliverables

Following deliverables are expected from 14 November to December 31:

- Desk review and interviews with related stakeholders;
- Needs assessment and institutional assessment of at least 2 institutions;

Following deliverables are expected from 2 January to 2 March:

- Needs assessment and institutional assessment of at least 2 institutions;
- Data analysis;
- Report writing;
- Dissemination of findings in a national workshop.

Annex 2: KEY INFORMANTS

Government

- Mr. Kabiraj Khanal, Under Secretary, MoHP
- Ms. Ishwari Devi Shrestha, Chief Nurse, MoHP
- Dr. Naresh Pratap KC, Director, Family Health Division
- Dr. Arjun Bahadur Singh, Director, National Health Training Center
- Mr. Shiva Shankar Ghimire, Director, Curriculum Division, Council for Technical Education & Vocational Training (CTEVT)
- Ms. Sita Joshi, Officer, CTEVT
- Ms. Daya Laxmi Shrestha, President, Nepal Nursing Council

International Organizations

- Dr. Kishori Mahat, RH officer, WHO
- Ms. Bindu Bajracharya, MNH Consultant, UNICEF
- Ms. Kristina Lod-Castell, Technical Specialist-Midwifery, UNFPA
- Dr. Geeta Rana, Assistant Representative, UNFPA

Bilateral Agencies

- Mr. Deepak Paudel, Programme Specialist (Maternal & Newborn Health), USAID
- Ms. Naramaya Limbu, Team Leader, FP/MNCH/Nutrition, USAID
- Dr. Ganga Shakya, Maternal & Neonatal Health Advisor, National Health Sector Support Programme (NHSSP)

Professional Organizations

- Ms. Kiran Bajracharya, President, Midwifery Society of Nepal*
- Ms. Pramila Dewan, President, Nepal Nurses Association*

Non- Government Organizations

- Dr. Mark Zimmerman, Executive Director, Nick Simons Institute
- Ms. Stephanie Suhowatsky, Programme Manager, JHPIEGO
- Dr. Kusum Thapa, JHPIEGO

**Same persons with dual roles*

Institutions

- Dr. Sheela Verma, Director, Paropakar Maternity and Women's Hospital
- Ms. Dev Maya Bajracharya, Matron, Paropakar Maternity and Women's Hospital
- Ms. Maiya Manandhar, Sr Sister, Paropakar Maternity and Women's Hospital
- Dr. Arjun Karki, Vice Chancellor, Patan Academy of Health Sciences
- Dr. Kundu Yonzon, Head of Department Obs/Gyn, Patan Hospital
- Ms. Rashmi Rajopadhyaya, Nursing Director, Patan Hospital
- Dr. Paras Kumar Acharya, Director, Patan Hospital
- Dr. Savala Shrestha, Acting Campus Chief, Tribhuvan University (T.U), Institute of Medicine (IOM), Nursing Campus
- Ms. Raj Devi Adhikari, Associate Professor, Assistant Campus Chief, T.U, IOM, Nursing Campus
- Prof. Dr. Arun, Sayami, Dean, T.U, IOM,
- Prof. Kiran Bajracharya, Associate Professor, T.U, IOM, Nursing Campus*
- Prof. Neelam Pradhan, Head of Department Obs/Gyn, T.U. Teaching Hospital
- Ms. Kalpana Piya, Sr Nursing Supervisor labor maternity neonatal room, T.U. Teaching Hospital
- Ms. Sangita Thapa, Supervisor, labor room, T.U. Teaching Hospital
- Ms. Parbati Shiwakoti, Supervisor Maternity Ward, T.U. Teaching Hospital
- Ms. Jamuna Sayami, Sr Nursing Supervisor, IOM, T.U, Teaching Hospital
- Prof. Dr. Sita Ram Chaudhary, Dean, NAMS, Bir Hospital
- Dr. Resham B Rana, Vice Dean, NAMS, Bir Hospital
- Prof. Dr. Shri Krishna Giri, Rector, NAMS, Bir Hospital
- Ms. Pramila Dewan, Campus Chief, Nursing Campus, NAMS, Bir Hospital*
- Prof. Dr. B.P. Das, Vice Chancellor, B.P Koirala Institute of Health Sciences
- Dr. Rupa Rajbhandari Sing, Rector, B.P Koirala Institute of Health Sciences
- Dr. Arvid Kumar Shina, Hospital Director, B.P Koirala Central Teaching Hospital
- Dr. Nand Kumar Thapa Magar, Registrar, B.P Koirala Institute of Health Sciences
- Ms. Mangala Shrestha, Principal, Nursing School, B.P Koirala Institute of Health Sciences
- Dr. S.K. Kanodia, Managing Director, Nepalgunj Medical College
- Dr. M.C Jain, Deputy Director, Nepalgunj Medical College
- Ms. Sabitra Pandey, Vice Prinicpal, Nepalgunj Medical College
- Ms. Ramba Sharma, Acting Nursing Director, Nepalgunj Medical College

Others

- Dr. Joan Skinner International Midwifery Consultant- Post Basic Midwifery Curriculum
- Prof. Shakuntala Shakya, National Consultant- Post Basic Midwifery Curriculum
- Ms Kiran Bajracharya, National Consultant- Post Basic Midwifery Curriculum*
- Ms. Pramila Dewan, National Consultant- Post Basic Midwifery Curriculum*

Annex 3

Patan Academy of Health Sciences

Educational assessment for the Post Basic Midwifery Programme

Patan Academy of Health Sciences (PAHS) is an autonomous, public institution of higher education and was established in 2008 with the charter granted by the Parliament of Nepal. Through its School of Medicine, PAHS is educating medical doctors who are willing to provide health care to underprivileged Nepalese living in remote or rural areas. The characteristic teaching –learning approach applied at PAHS is the Problem Based Learning (PBL) method. As per December 2011, two batches are enrolled and the preparation is underway to admit the third batch of student. PAHS is in an initial phase of exploring various possibilities to expand its academic programs and the proposed School of Nursing and Midwifery is an example for which the planning process has already begun. To learn and benefit from international experiences and best practices around the world and to continue to improve the quality of its academic programs, PHAS has built an extensive international network with prominent academic institutions and medical leaders in various universities globally. PAHS has no midwifery program as yet, but have got the willingness and serious commitment to develop one provided that Ministry of Health and Population commits itself for this initiative and sanctions the adequate numbers of positions appropriate for the fully trained Professional Midwife. PAHS is positive to take a careful look at and benefit from the drafted Post Basic Midwifery Curriculum.

1. Organization and Administration

PAHS has a clear defined vision, mission and objectives for their medical program. In order to train professional midwives, PAHS supports the suggested philosophy; aims and objectives of the midwifery education programme and will adopt and fit it in to the existing mission statement of the academy. As there is no existing midwifery programme yet in place, operations cost estimation is required to support the program. For inspiring its students to serve in the most remote areas of the country, PAHS has developed different types of scholarship schemes for their students. These scholarships are well established and recognized and would be possible to also apply for the midwifery students. As per the existing PAHS Act and regulation, its graduates, particularly the scholarship recipients, are required to serve in rural areas. There is a faculty development committee which is responsible for developing and leading policies and curriculum. For the midwifery programme, the faculty from the Departments of Obstetrics and Gynecology as well as that of Pediatrics will provide a critical support in implementing the midwifery training program until the midwifery faculty is in place. The head of the midwifery programme will be a qualified midwife with a master degree. The midwifery programme will take into account both national and international polices and standards in order to reflect maternity workforce needs.

2. Midwifery Faculty

A separate midwifery faculty including predominantly of midwives (teachers and clinical preceptors/clinical teachers) is to be developed to run the midwifery programme. However, PAHS has other health professionals who will be able to work in close collaboration such as nurses, obstetricians, gynecologists, pediatricians and anesthetists, which all hold a graduate degree and possess clinical and educational expertise in their specialty. There are at present 3 – 4 senior Nurses in Patan Hospital who did their Bachelor of Nursing as there was no formal Midwifery training program in the country. However, the fact that they worked in the maternity ward for several years and based on their additional practical experiences in the field of Midwifery, they were not only involved in running the one month long Midwifery Refresher trainings for the Staff Nurses working in the rural government health care institutions for 6 – 7 years, but have also been the SBA trainers for the last several years. There are 15 nurses working in the maternity department some of whom possess the degree of Bachelor in Nursing Science. They are holding positions such as supervisors and Sister in Charge. Four of them have extensive experience in working as a midwifery tutor. The nurses are based in the maternity department and therefore demonstrate competencies in midwifery practice on a daily basis. Due to the current situation in Nepal none of these nurses holds a license or a registration or other form of legal recognition to practice midwifery.

There is no formal national system in Nepal to prepare teachers for Nursing or Midwifery programs. The minimum requirement to become a tutor is one academically level above the students. PAHS has developed an in house training for trainers which consist of different modules including faculty development. To maintain competencies in nursing practice and education the academy conducts weekly in house educational sessions which could be extended also in to midwifery practice and education. Further PAHS has signed an agreement with a university in Sweden to exchange experiences and needs. PAHS has in this agreement articulated the need on training midwifery teachers on a master level.

2.1 The midwife clinical preceptor/clinical teacher

As there are no midwives who hold a license or registration or other forms of legal recognition to practice midwifery in Nepal, according to the international *Definition of Midwife;* there are no midwives in true sense at PAHS. However the clinical preceptors/teachers demonstrate competencies in midwifery and have numerous years of full scope of midwifery practice in a variety of areas such as antenatal, intrapartum, postpartum and newborn care. Further they participate in professional development activities relevant to midwifery education and practice. At Patan hospital all the midwifery teachers have undertaken the in house trainers of trainer course in order to be prepared for clinical teaching of nurses coming from Lalitpur Nursing Campus for their midwifery training. The midwife teachers provide practical education, support and supervision of students in the practical learning sites.

There is one clinical teacher per shift except during the night shifts. The ratio of students to clinical teachers in maternity is 5 students per 1 teacher in the morning shift, 3 students per 1 teacher at the night shift and 3 students at night time. The medical faculty at PAHS has a written strategy for regular assessment of the faculty performance in order to assess the effectiveness of the faculty such as student performance, student evaluations and qualification or registration rates. These protocols could be applicable and applied to the midwifery program.

3. Student Body

The Post Basic Midwifery Program has prepared a separate admission policy which includes the minimum requirement for admission, enrollment, selection and criteria for acceptance including entrance test. Besides PAHS already has got clearly written admission policies for the medical program, the academy would apply the recommended selection and acceptance criteria and adjust these to be fitted into the existing minimal requirements, mission and vision statement.

As per date the medical programme has written students policies that includes expectations of students in classroom and practical areas, statements about students' rights and responsibilities, process for addressing appeals and grievances, mechanisms for students to provide feedback and ongoing evaluation of the curriculum, faculty and programme as well as requirements for successful completion of the programme. For the purpose of the midwifery training programme all these policies could be applied after necessary modification. Further, for the midwifery students to achieve the ICM's *Essential Competencies for Basic Midwifery Practice* the academy offers a variety of practical experiences in hospital and community setting to meet the country needs and ICM scope of practice. The diversity of midwifery practical settings includes hospitals, clinics, health centers, community and homes.

4. Resources, facilities and services

To run the Post Basic Midwifery Program it is suggested to have policies that address student and teacher safety and wellbeing in teaching and learning environments. These policies include items such as safe travel/transport to practical sites, personal safety in community settings, precautions for blood borne diseases, management of sharp injuries, and immunization protection. These policies are all related to the medical programme at PAHS and would be possible to apply to the midwifery programme.

The academy has sufficient teaching and learning resources to meet the needs of the medical programme. The medical programme has access to learning resources such scientific journals and reference literature in both printed and electronic forms. There are communication technologies such as computers and web based learning. The two classrooms are adequate and accommodate 60 students /room. There are in addition a number of study rooms and clinical labs in order to run the PBL learning. The students have access to support services such as financial aid through a

scholarship scheme and mentoring, not only in educational and professional development but also in personal growth.

In terms of human resources to support both classroom/theoretical and practical learning a human resource plan needs to be in place, a programme budget for capacity building of a number of existing nurses, recruitment and retention of sufficient qualified faculty members.

5. Accommodation

There is a hostel available near by the academy that PAHS has rented for those students who wish to stay there and also are willing to pay out of their own pocket. Preference is given to those students coming outside the valley. Although prior the start of the midwifery programme possibilities for further accommodation options will be considered.

Patan Hospital

Clinical assessment for the Post Basic Midwifery Programme

The story of Patan hospital has its roots back in the early 1950 when it used to be called Shanta Bhawan Hospital. Since then it has expanded gradually and got renamed as Patan Hospital in 1982. While its inception The Patan hospital evolved from being a district hospital to a full of activity urban based academic teaching hospital providing both primary care as well as specialty services. The care offered is available to all patients coming from a diverse geographic area within the country. The hospital has a capacity of 450 beds including maternity beds. Apart from the clinical services the hospital offers a community oriented program, health education classes and rural networking in order to support the nation to live a safer and healthier life. Patan Hospital is an integral part of and is governed by Patan Academy of Health Sciences (PAHS).

1. Maternity unit

The clinical area provides emergency obstetric care service 24/7 and is functioning as a referral hospital. It covers antenatal, intrapartum and postnatal care. The number of monthly ANC is approximately 1784 visits and about 250 postnatal mothers. Labor ward consists of 36 beds and 6 delivery beds. The delivery beds are divided between four rooms and there are about 800-900 deliveries/month. Of these around 30% are caesarian sections. Majority of all the low-risk deliveries are handled by the nurses. There is a birthing unit which is today functioning as a post natal ward. All visits for antenatal, intrapartum and post natal care are documented. There is no specific job description for the nurses providing maternal care and as already mentioned there are no nurses/midwives who hold a license or registration or other forms of legal recognition to

practice midwifery in Nepal, according to the international *Definition of Midwife.* The nurses are providing and signing off the initial birth certificate at all normal deliveries. In case of a caesarian section this is the responsibility if the doctor. The permanent birth certificate where the name of the child is written is issued by a legal officer.

2. Human Resources

The hospital seems to have a sufficient number of personnel providing care for women and their babies. The capacity of staffing on labour ward is adequate with a number of 80 nurses and ANMs. In terms of further in-service training there are 5% of the nurses who have undergone the SBA training (see figure 1).

No of nurses/with SBA skills	No of ANMs/with SBA skills	No of sanction posts nurses/vacant posts	No of sanction posts ANM/vacant posts	No of sanction posts Obs/gynea/ vacant posts	No of sanction posts Medical officers/vacant posts	No of sanction posts Anesthetists /vacant posts
74/4	6/0	?	?	12/0	4/0	3/2

Figure 1: Illustration of the human recourses at the maternity unit

The maternity unit accepts the student Nurses from Lalitpur Nursing Campus for practical training and receives 11 students divided by three shifts/24 hours/year. There is a clear supportive and collegial supervision mechanism in place, and the ward is familiar to guide the students in an encouraging way.

It also occur that ANM students from the rural areas come to the hospital in order to get the opportunity for hand on practice. However this is not on a regular basis. In additional to the student nurses, there are also the medical students who are enrolled at PAHS that will be on a rotational scheme. In a year there is about 100 students divided into three shifts/24 hours. As this is not an SBA site there are no SBA students at present.

3. Equipment and supplies for birthing area

Labor ward is well equipped in terms of facility, equipment and adequate supply for demand. Further the equipment is maintained and working correctly. The infection prevention, instrument birthing set and set for episiotomy repair is all available per checklist (annex 10). The records and forms for appropriate documentation are available along with protocols/guidelines for management of postpartum hemorrhage and preeclampsia etcetera. All deliveries are recorded and partographs are filled out. In terms of drugs/medications everything per checklist (annex 10) is available with an adequate supply and stored in appropriate storage.

Annex 4

Tribhuvan University, Institute of Medicine, Maharajgunj Nursing Campus

Educational Assessment

Maharajgunj Nursing Campus the pioneer Nursing Institute in Nepal opened in 1956 under the Directorate of Health Services. In 1972 with the introduction of the New Education System the campus was brought under the Institute of Medicine (IOM) Tribhuvan University. The Nursing Campus is offering five different levels of nursing programmes namely (see table 2) Proficiency in Certificate Level (PCL) to PhD Degree. It also conducts the SBA training, mainly for midwifery and community health teachers. At present about 150 students are graduated yearly from the Maharajgunj Nursing Campus. Within the campus there are eight faculties with highly qualified faculty members. The Institute of Medicine (IOM) has along with this nursing campus five other nursing campuses situated in different parts of the country. To maintain quality of its programs IOM has established linkages programs with institutions and universities all over the world. Up to date the campus has no separate midwifery program but has shown willingness to conduct the drafted Post Basic Midwifery Programme.

1. Organization and Administration

The Maharajgunj Nursing Campus has a clearly defined vision, mission and goal for its nursing programmes. Its vision, mission and goals support the suggested philosophy; aims and objectives of the post basic midwifery education programme as well. The campus is running its programmes with financial support from the government via Tribhuvan University. Once the programme is finalized cost estimation will be conducted and a request will be send to the government for the financial support for the midwifery programme

The existing midwifery faculty is a part of the college and is governed by the Dean's office. In terms of development and approval of a new curriculum and the Subject Committee is the initiating body. Following approval from the Midwifery Subject Committee the draft curriculum requires further approval from the higher academic body at IOM namely the Faculty Board chaired by the Dean of IOM. The final approval for the new programme is to be obtained from the Academic Council at TU, which is chaired by the Vice Chancellor. The Principal of the nursing programme is a qualified nurse although she is in a possession of broad midwifery experience. Moreover, experience in management and administration is adequate within the programme. The nursing programme takes into account both national and international polices and standards in order to reflect maternity workforce needs.

2. Midwifery Faculty

The midwifery faculty of Maharajgunj Nursing Campus includes of 11 midwifery teachers. The faculty primarily consists of registered nurses with extensive working experience as teachers and clinical preceptors who works with experts from other disciplines as needed. The greater parts have a Master Degree level in Women Health and Development and one Associate Professor has a Master Degree in Maternal Health from India. The midwifery teachers demonstrate competencies in midwifery practice (See table 1). All 11 faculty members are working fulltime and conduct both theory and clinical teaching. They work in close collaboration with their students within all the different areas of midwifery practice.

Table 1: Illustration of the midwifery faculty at IOM

Designation	Frequency	Academic Qualification	Year of experience a as tutor	SBA trained	Undertaken ToT
Professor	1	Master Degree	>35	1	1
Associate Professor	6	Master Degree	>20	6	6
Lecturer	4	Master Degree	>20	1	4
		3 Bachelor Degree	>5	2	
Total	11			10	11

Due to the current situation in Nepal none of these nurses holds a license or a registration or other form of legal recognition to practice midwifery. All members of the faculty have undertaken a one week Trainer of Trainers course in order to prepare for teaching. The minimum requirements to become a tutor within the Nursing Campus are a Bachelor Degree in related field and three years of teaching experience. In order to maintain the competence in midwifery, 10 out of 11 tutors have completed either a midwifery course or the SBA training.

Table 2: Illustration of programmes undertaken by the midwifery faculty at IOM

Programs under the midwifery faculty	Entry Level	Length of programme	Number of batches/year	Number of students/ batch	Hours of midwifery included in curriculum	
					Theory	Practical
PCL Nursing	10th grade	3 years	1	60	300	900
Generic Bachelor of Nursing (B.Sc)	12th grade	4 years	1	20	300	840
Bachelor of Nursing (BN)	PCL Nursing+ 2 years of working experience	2 years	1	50	30	288
Master of Nursing (*Woman Health and Development*)	BN and BSc	2 years	1	7	200	750
SBA	Midwifery and community teachers	9 weeks (including 1 week of ToT)	3	12	72	252

2.1 The midwife clinical preceptor/clinical teacher

As none of the midwives who hold a license or registration or other forms of legal recognition to practice midwifery in Nepal, according to the international *Definition of Midwife;* there are no midwives in true sense at IOM. However the clinical preceptors/teachers demonstrate competencies in midwifery and have numerous of years of full scope of midwifery practice in a variety of areas such as antenatal, intrapartum, postpartum and newborn care. The midwifery faculty works in close partnership with the maternity department of TUTH and function as both clinical teachers in collaboration with the clinical midwives posted in the maternity department.

There is no such formal preparation for clinical teaching and this is therefore interrelated in the in house trainer of trainers' course.

The midwifery teachers both at the academic or practical sites work with professionals from other disciplines who teach in the midwifery programme. The teachers further provide education, support and supervision of the students in the practical learning sites. The teachers and the clinical preceptors work together to support, directly observe and evaluate students' practical learning. Therefore on a rotational basis the midwifery faculty members are present at each shift on labour ward except from the night shifts. The ratio of students to teachers on labour ward is 5-6 students per 1 teacher in the morning and evening shifts.

3. Student Body

The Nursing Campus has got a clearly written admission policy for its nursing programmes. As the Post Basic Midwifery Program has an admission policy which includes the minimum requirement for admission, enrollment, selection and criteria for acceptance including entrance test, the campus will take these into considerations and will take steps for modification if needed.

The Nursing Campus has written student policies that include expectations of students in classroom and practical areas, statements about students' rights and responsibilities, process for addressing appeals and grievances, mechanisms for students to provide feedback and ongoing evaluation of the curriculum, faculty and programme as well as requirements for successful completion of the programme. In order to start the midwifery programme all these policies would be applicable to the midwifery programme.

The campus is offering a variety of practical experiences for its students in hospital and community setting to meet the health need of the country, which is also in accordance with the ICM scope of practice. The diversity of midwifery practical settings includes hospital including birthing center (soon to be opened), clinics, primary health care centers, community and residential field.

4. Resources, facilities and services

To run the Post Basic Midwifery Program it is suggested to have policies that address student and teacher safety and wellbeing in teaching and learning environments. These policies include items such as safe travel/transport to practical sites, personal safety in community settings, precautions for blood borne diseases, management of sharp injuries, and immunization protection. These policies are all related to the nursing programme at IOM and would be possible to apply to the midwifery programme.

The Nursing Campus has sufficient teaching and learning resources to meet the needs of the nursing programmes. The programs have access to three libraries included learning resources such scientific journals and reference literature in both printed and electronic forms. Computers are available for the students including free access to internet. The medium and big sizes of 15

classrooms are adequate and accommodate between 30-60 students. There is a comprehensive equipped midwifery skill laboratory beyond the checklist (see annex 9). The equipment for the skill lab is up to date with financial support from WHO and the government of Japan. The students have access to support services such as financial aid through a scholarship scheme.

The nursing program has adequate human recourses to support both classroom/theoretical and practical learning. However there is no human resource plan in place. There is a sufficient budget for extra allowances for retention of its faculty members. In order to meet the teaching loads and responsibilities of starting a new midwifery programme, the midwifery faculty expresses a need for additional 4-5 faculty members. The midwifery faculty has access to satisfactory midwifery practical experiences in a variety of settings such as hospitals, clinics, primary health care centers, communities and home settings to meet the learning needs of each student.

5. Accommodation

There is a hostel within the Nursing Campus which is able to accommodate 280 students in 140 rooms (2/room). There are plans to accommodate four students in each room (bunk beds) in order to increase the capacity of numbers of beds and students. The rooms have adequate space and are equipped with beds, cupboards, mattresses, bed sheets, pillows for each student. There is an available visitor room, kitchen and hand washing facilities. The hostel is safe and secure for the students. Sufficient numbers of bathrooms and common showers are offered. There is a cook who is preparing all the food for the students and there are also facilities for extracurricular activities.

Tribhuvan University Teaching Hospital (TUTH)

Clinical assessment for the Post Basic Midwifery Programme

The Tribhuvan University Teaching Hospital (TUTH) was established in 1983 with financial support from the government of Japan. The hospital is center for the teaching/learning and research activities of different programs run by IOM. The two main functions are to provide practical field for the academic education programs and as a national hospital delivering medical care to the Nepalese people. Further the TUTH acts as the main centre to conduct health research in the country. The hospital has a capacity of 486 beds including maternity beds it is also assigned as a baby friendly hospital.

1. Maternity unit

The clinical area provides emergency obstetric care service 24/7 and is functioning as a referral hospital. It covers antenatal, intrapartum and postnatal care. All visits for antenatal, intrapartum and post natal care are documented. The yearly number of ANC mothers is about 15000. The total

number of beds in the maternity ward is 36. There are 5 labour room beds and three delivery beds including one septic bed. The monthly delivery rate is about 400 births. The caesarian section rate is just above 30%. The low risk deliveries are handled by the nurses. There is a birthing center under constructions which is planned to be nurses lead. There is no specific job description for the nurses providing maternal care and as already mentioned there are no nurses/midwives who hold a license or registration or other forms of legal recognition to practice midwifery in Nepal, except SBA certificate, according to the international *Definition of Midwife.* The nurses are providing and signing off the initial birth certificate at all normal deliveries. In case of a caesarian section the responsibility lays with the doctor.

2. Human Resources

The maternity unit seems to have a sufficient number of personnel providing care for women and their babies. The capacity of staffing in the maternity unit is totally 36 nurses. The average coverage is 4 nurses per shift. These nurses are not always allocated to the maternity but also rotating to other units within the hospital. In terms of further in-service training, 16.6 % of the nurses have undergone the SBA training (see table 3)

Table 3: Illustration of the human recourses at the maternity unit

No of nurses/with SBA skills	No of ANMs/with SBA skills	No of sanction posts nurses/vacant posts	No of sanction posts ANM/vacant posts	No of sanction posts Obs/gynea/ vacant posts	No of sanction posts Medical officers/vacant posts	No of sanction posts Anesthetists /vacant posts
36/6	1/0	?	?	16/0	22/0	?

The maternity unit is affiliated with IOM Nursing Campus and accepts the nurses for their midwifery training. In a year there is a total of 173 students on different level (see table 2). The students are rotating within the maternity and are divided by three shifts/24 hrs/year. There is a clear supportive and collegial supervision mechanism in place, and the ward is familiar to guide the students in an encouraging way.

Table 4: Illustration of total number of student nurses in a year on labour ward

Degree of students	No of students/year
Bsc Nurses	20
BN Nurses	49
PCL Nurses	60
Masters Nurses	14 (WHD group , 1st and 2nd yr)
SBA	30 (during training period only)
TOTAL	**173**

3. Equipment and supplies for birthing area

Labor ward is well equipped in terms of facility, equipment and adequate supply for demand. Further the equipment is maintained and working properly. The infection prevention, instrument birthing set and set for episiotomy repair is all available per checklist (annex 10). The records and forms for appropriate documentation are accessible along with protocols/guidelines for management of postpartum hemorrhage and preeclampsia etcetera. All deliveries are recorded and partographs are filled out. In terms of drugs/medications everything per checklist (annex 10) is available with an adequate supply and stored in appropriate storage. Nurses are authorized to provide birth certificate as a midwife .

Annex 5

National Academy of Medical Science – NAMS

Educational Assessment

Bir Hospital Nursing Campus was established in 1989 and is a public campus. It was initially affiliated with Tribhuvan University; nevertheless, in 2004 the Nursing Campus was recognized under the National Academy of Medical Science. At this time the Post Basic Bachelor of Nursing Programme (BN) started and the Nursing campus is since then providing the Proficiency in Certificate Level (PCL) nursing and the BN nursing programme. The training approach is focusing on preventive, curative and rehabilitative aspect of health care and follows realistic and practical learning methodology. The teaching method is based on a mixture of problem based learning, lectures and group work. NAMS has no separate midwifery program as yet, but shows the willingness and dedication to take on the drafted Post Basic Midwifery Curriculum provided that Ministry of Health and Population commits itself for this initiative.

1. Organization and Administration

The Nursing Campus has a clear defined vision, mission and objectives for its nursing programmes. Its vision, mission and objective support the suggested philosophy; aims and objectives of the post basic midwifery education programme. The campus is running its programmes with financial support from the government as well as with students' fees. Cost estimation will be conducted in collaboration with the government in order to meet the financial need of the midwifery programme.

Within the Nursing Campus there are at present no academically positions. The campus members are employed by the government and not by the NAMS. The governing body of the Nursing Campus is the Dean. However the campus is involved in developing and leading the policies and curriculum of a possible midwifery educational programme. It terms of development and approval of a new curriculum, the Curriculum Committee is the initiating body. After approval by the Faculty Board, chaired by the Dean, the final endorsement is taken by the Academic Council at NAMS, chaired by the Rector.

The Campus Chief of the nursing programmes is a qualified nurse although she is in a possession of broad midwifery experience. Moreover the experience in management and administration is adequate within the programme. The nursing programmes are taking both national and international polices and standards into account in order to reflect maternity workforce needs.

2. Midwifery Faculty

The Nursing Campus includes of 18 teachers. The campus predominantly consists of registered nurses with a broad working experience as teachers and clinical preceptors who works with experts from other disciplines as needed. Five teachers are allocated only for the midwifery part within the nursing programmes. All teachers for the Post Basic Bachelor nursing have undertaken a Master Degree (see table 1).

Table 1: Illustration of the Nursing Campus at NAMS

Designation	Frequency	Academic Qualification	Years of experience as a tutor	Allocated only for the midwifery part	SBA trained	Undertaken ToT
Campus Chief	1	Master Degree	>15	-	-	1
PCL teachers	9	Bsc Degree	>15	-	3	9
BN teachers	8	Master Degree	>15	5	4	8
Total	18			5	7	18

Due to the current situation in Nepal none of these nurses holds a license or a registration or other form of legal recognition to practice midwifery. Nevertheless, 44% of the teachers have completed the SBA course and the teachers also practice themselves in the skill labs to maintain their competence in midwifery practice and education. There is no formal national system in Nepal to prepare teachers for Nursing or Midwifery programs. The minimum requirement to become a tutor is one academically level above the students. However, all teachers have undertaken a 1-2 weeks trainer of trainers' course.

Table 2: Illustration of programmes undertaken by the Nursing Campus at NAMS

Programs under the midwifery faculty	Entry Level	Length of programme	Number of batches/year	Number/batch	Hours of midwifery included in curriculum	
					Theory	Practical
PCL Nursing	10th grade	3 years	1	40	330	900
Bachelor of Nursing (BN)	PCL Nursing+ 2 years of working	2 years	1	30	50	100

	experience					

2.1 The midwife clinical preceptor/clinical teacher

As none of the midwives hold a license or registration or other forms of legal recognition to practice midwifery in Nepal, according to the international *Definition of Midwife;* there are no midwives in true sense at NAMS. However the clinical preceptors/teachers demonstrate competencies in midwifery and have numerous of years of full scope of midwifery practice in a variety of areas such as antenatal, intrapartum, postpartum and newborn care. For the purpose of maintaining their competencies in midwifery majority of the teachers have carried out the provided Continuing Midwifery Education training provided by MIDSON. The Nursing Campus works in close partnership with the Maternity Hospital and function as both clinical teachers and theory teachers in collaboration with the clinical midwives posted in the hospital. There is no such formal preparation for clinical teaching and this is therefore interrelated in the in house trainer of trainers' course.

The midwifery teachers, both at the academic or practical site work with professionals from other disciplines who teach in midwifery. Further the teachers provide education, support and supervision of the students in the practical learning sites. The teachers and the clinical preceptors work together to support, directly observe and evaluate students' practical learning. Therefore on a rotational basis the teachers from the Nursing Campus are present at each shift on labour ward except from the night shifts when the campus hires one staff from the hospital to undertake this role. The ratio of students to teachers on labour ward is 5-6 students per 1 teacher per shift.

3. Student Body

The Nursing Campus has got a clearly written admission policy for its nursing programmes. As the Post Basic Midwifery Program has prepared a suggested admission policy which includes the minimum requirement for admission, enrollment, selection and criteria for acceptance including entrance test, the campus will take these into considerations and revise if needed to match into the existing policies.

The Nursing Campus has written students policies that includes expectations of students in classroom and practical areas, statements about students' rights and responsibilities, process for addressing appeals and grievances, mechanisms for students to provide feedback and ongoing evaluation of the curriculum, faculty and programme as well as requirements for successful completion of the programme. In order to start the midwifery programme all these policies would be applicable to the midwifery programme.

The campus is offering a variety of practical experiences for its students in hospital and community setting to meet the health need of the country, which is also in accordance with the ICM scope of practice. The diversity of midwifery practical settings includes hospital, clinics, primary health care centers, community and homes.

4. Resources, facilities and services

To run the Post Basic Midwifery Program it is suggested to have policies that address student and teacher safety and wellbeing in teaching and learning environments. These policies include items such as safe travel/transport to practical sites, personal safety in community settings, precautions for blood borne diseases, management of sharp injuries, and immunization protection. As these policies already exist for the nursing programmes they would be applicable to the midwifery programme as well.

The Nursing Campus has sufficient teaching and learning resources to meet the nursing programmmes' needs. Reference literature in printed and electronic forms is available although access to learning resources such scientific journals is limited. There are access to computers (6) and internet access. The classrooms are adequate and accommodate about 40 students each. There is a fully equipped midwifery skill laboratory as per checklist (see annex 9) with exception of a Zoe model and a vacuum set. The students have access to support services such as financial aid through fund raising through NGO's. There is also a coaching service provided for students who might need extra teaching support.

The nursing program has adequate human recourses to support both classroom/theoretical and practical learning. There is a human resource plan in place along with a sufficient budget for extra allowances for retention of the staff members. In order to meet the teaching loads and responsibilities of starting a new midwifery programme, the Nursing Campus expresses a need for addition 4-5 teachers.

5. Accommodation

There is a hostel within the Nursing Campus which is able to accommodate 100 students in 50 rooms (2/room). There are future plans to construct a new hostel as the existing one is old. The rooms have adequate space and are equipped with beds and cupboards for the student. There is an available visitor room, kitchen and hand washing facilities. The hostel is safe and secure for the students. Sufficient numbers of bathrooms and common showers are offered. There is a housewife who is preparing all the food for the students and there are also facilities for extracurricular activities.

Annex 6

Paropakar Maternity and Women's Hospital, Thapathali

Clinical assessment for the Post Basic Midwifery

The Maternity Hospital was established in 1959. The hospital has a total of 450 beds and provides all services related to maternal care through its 14 fully functional units. The Government of Nepal supports the hospital with financial support and some funds are generated by the hospital itself. The hospital is functioning as the central referral hospital for maternal & neonatal care services as well as National & International centre for development of trained human recourses required for the reproductive health care of women in the country including some neighboring countries in South Asia. The Maternity Hospital works in close collaboration with the government, non-governmental and UN agencies.

1. Maternity unit

The hospital provides emergency obstetric care service 24/7 and is functioning as a referral hospital. It covers all areas of maternal services such antenatal, intrapartum and postnatal care. The monthly rate of ANC and PNC visits are massive. Labour ward consists of three rooms with three delivery beds in each room, so in total 9 beds. In addition, there is also a birthing center which is led by nurses. There are about 1900 delivers/months. Of these approximately 15% are caesarian sections.

Majority of all the low-risk deliveries are handled by the nurses. All visits for antenatal, intrapartum and post natal care are documented. The ANC and PNC visits are conducted both of nurses and doctors. There is a general job description developed specific for the nurses providing maternal care at this hospital. None of the nurses hold a license or registration or other forms of legal recognition to practice midwifery according to the international *Definition of Midwife.*

It is the responsibility of the doctor to issue the birth certificate both for the complicated cases as well as the normal cases. There is a supportive and collegial supervision mechanism in place for the staff. In this regard, a supervisor is available 24/7 and every morning starts with a meeting.

2. Human Resources

The hospital seems to have a sufficient number of personnel providing care for women and their babies. The capacity of staffing on labour ward is adequate with a number of 185 and includes both nurses and ANMs. There are no vacancies and more nurses are appointed then there are positions.

In terms of further in-service training there are 16% of the nurses who have undergone the SBA training (see table 1).

Table 1: Illustration of the human recourses on labour ward

No of nurses/with SBA skills	No of ANMs/with SBA skills	No of sanction posts nurses/vacant posts	No of sanction posts ANM/vacant posts	No of sanction posts Obs/gynea/ vacant posts	No of sanction posts Medical officers/vacant posts	No of sanction posts Anesthetists /vacant posts
160/26	25/4	/0	/0	-	-	5/0

Maternity hospital is affiliated with 35 different colleges who send their medical and nurse students to practice midwifery. The hospital has a rotational system in place which allows three colleges per month to rotate between the 14 different units.

There are about 3800 students per year including nursing, medical and SBAs (See table 2). In order to allow the students to receive sufficient hands on practice a maximum of 120 nurse students/month divided per three shifts are permitted. The nurse students are allocated to labour room and the SBAs are based in the birthing centre. One clinical teacher covers labour ward each shift and works in close collaboration with the students. The clinical teacher provides practical education, support and supervision of students in the practical learning sites

Table 2: Illustration of total number of student nurses in a year on labour ward

Degree of students	**No of students/year**
Bsc Nurses	700
BN Nurses	1400
PCL Nurses	1400
Medical	200
SBA	115
TOTAL	**3815**

3. Equipment and supplies for birthing area

Labor ward is well equipped in terms of facility, equipment and adequate supply for demand. Further the equipment is maintained and working correctly. The infection prevention, instrument birthing set and set for episiotomy repair is all available per checklist (annex 10). The records and forms for appropriate documentation are available along with protocols/guidelines for management of postpartum hemorrhage and preeclampsia etcetera. All deliveries are recorded and partographs are filled out. In terms of drugs/medications majority of items per checklist (annex 10) is available with an adequate supply and stored in appropriate storage.

Annex 7

B.P. Koirala Institute of Health Sciences, Dharan

Educational Assessment

B.P. Koirala Institute of Health Sciences (BKHIS) was established in 1993 and subsequently upgraded as an autonomous university in 1998. The university has four colleges including Colleges of Nursing. The Institute is a successful example of Nepal India co-operation. BKHIS has been envisioned by the Nepalese Parliament as a centre of national importance to produce skilled manpower in health sector to meet the country's need. Under the College of Nursing fall five faculties providing nursing programmes from Proficiency in Certificate Level (PCL) to master degree. These programmes are well recognized and profitable within and outside the country. The teaching –learning approach applied at BPKIHS is lectures, Problem Based Learning (PBL) method including inter professional teaching. There are about 70 students graduating yearly from the Nursing School. To learn and benefit from best practices and further programmes development, BKHIS has built a widespread national and international Memorandum of Understanding with well-known academic institutions in various universities. Up to date BPKHIS has no separate midwifery program but have a willingness to take on the drafted Post Basic Midwifery Curriculum.

1. Organization and Administration

The Nursing School has a clear defined vision, mission and objectives for their nursing programmes. In order to train professional midwives, the school supports the suggested philosophy; aims and objectives of the midwifery education programme and will adopt and fit it in to the existing objectives of the school. The Nursing School is running its programmes with some financial support from the government but mostly from the student fees. It was mentioned that most likely no separate budget is required to initiate the midwifery programme as this will be included in the existing programmes. Cost estimation will however be conducted and send to the academic committee in order to secure the financial need for the midwifery programme.

The existing Maternal Health faculty is a part of the Nursing School and is governed by the office of the Dean. In terms of development and approval of a new educational programme, the Nursing School will have to propose the curriculum to the Head of Department followed by the Academic committee who conducts the budget planning according to required resources and infrastructure. Through the Executives the proposal ends at the Senate, consisting of the Vice Chancellor, Health Minister and the Chancellor. The last step in the chain is to get the final approval by the Nursing Council.

The Chief Nurse of the nursing programme is a qualified nurse although she has a broad midwifery experience. Moreover, experience in management and administration is adequate within the

programme. The nursing programme takes into account both national and international polices and standards in order to reflect maternity workforce needs.

2. Midwifery Faculty

The maternal health faculty includes of seven midwifery teachers. The faculty primarily consists of registered nurses with broad working experience as teachers and clinical preceptors who work with experts from other disciplines as needed. More than 50% have a Master Degree level in Maternal Health. The midwifery teachers demonstrate competencies in midwifery practice (See table 1). All seven faculty members are working fulltime and conduct both theory and clinical education. They work in close collaboration with their students within all areas of midwifery practice.

Table 1: Illustration of the maternal health faculty at BKHIS

Designation	Frequency	Academic Qualification	Year of experience a as tutor	SBA trained	Undertaken ToT
Professor	1	Master Degree	>11	1	1
Associate Professor	2	Master Degree	>5	-	-
Assistant Professor	1	Master Degree	>2	-	-
Nursing Officer	3	Bachelor Degree	>1	-	-
Total	7			1	1

Due to the current situation in Nepal none of these nurses holds a license or a registration or other form of legal recognition to practice midwifery. One of the faculty members has undertaken ToT in order to prepare for teaching. The minimum requirements to become a tutor within the Nursing School are a Bachelor Degree in related field and three years of teaching experience. In order to maintain the competence and practice in midwifery the Nursing Officers are under a 2 years rotation programme between the clinical and academically sites.

Table 2: Illustration of programmes undertaken by the maternal health faculty at BPKIHS

Programs under the midwifery faculty	Entry Level	Length of programme	Number of batches/year	Number/batch	Hours of midwifery included in curriculum	
					Theory	Practical
PCL Nursing	10th grade	3 years	1	40	300	600
Generic Bachelor of Nursing	12th grade	4 years	1	25	260	700
Master of Nursing (*Maternal Health Nursing*)	BSc + 2 years working experience	3 years	1	2	300	900

2.1 The midwife clinical preceptor/clinical teacher

As none of the midwives who hold a license or registration or other forms of legal recognition to practice midwifery in Nepal, according to the international *Definition of Midwife;* there are no midwives in true sense at BPKIH. However the clinical preceptors/teachers demonstrate competencies in midwifery and have numerous of years of full scope of midwifery practice in a variety of areas such as antenatal, intrapartum, postpartum and newborn care. The maternal health faculty works in close partnership with the maternity department and function as both clinical teachers in collaboration with the clinical midwives posted in the maternity department. There is no such formal preparation for clinical teaching.

The midwifery teachers both at the academic or practical sites work with professionals from other disciplines who teach midwifery in the nursing programme. The teachers further provide education, support and supervision of the students in the practical learning sites. The teachers and the clinical preceptors work together to support, directly observe and evaluate students' practical learning. Therefore on a rotational basis the maternal health faculty members are present at each

shift on labour ward except from the night shifts. The ratio of teachers to students on the clinical sites is 1: 6.

3. Student Body

The Nursing School has got a clearly written admission policy for its nursing programmes. As the Post Basic Midwifery Program has prepared a suggested admission policy which includes the minimum requirement for admission, enrollment, selection and criteria for acceptance including entrance test, the school will take these criteria into considerations and amend if needed to match into the existing policies.

The Nursing School has written student policies that include expectations of students in classroom and practical areas, statements about students' rights and responsibilities, process for addressing appeals and grievances, mechanisms for students to provide feedback and ongoing evaluation of the curriculum, faculty and programme as well as requirements for successful completion of the programme. In order to start the midwifery programme all these policies would be applicable to the midwifery programme.

The campus is offering a variety of practical experiences for its students in hospital and community setting to meet the country needs which is also in accordance with the ICM scope of practice. The diversity of midwifery practical settings includes hospital, clinics, primary health care centers, community and homes.

4. Resources, facilities and services

To run the Post Basic Midwifery Program it is suggested to have policies that address student and teacher safety and wellbeing in teaching and learning environments. These policies include items such as safe travel/transport to practical sites, personal safety in community settings, precautions for blood borne diseases, management of sharp injuries, and immunization protection. These policies are all related to the nursing programme at BPKIHS and would be possible to apply to the midwifery programme.

The Nursing School has sufficient teaching and learning resources to meet the needs of the nursing programmes. The programs have library access included learning resources such scientific journals and reference literature in both printed and electronic forms. Computers are available for the students including free access to internet. The classrooms are adequate and accommodate between 25-40 students. There is a sufficient equipped midwifery skill laboratory as per checklist (see annex 9). Students from a poor background have access to financial support services. Further the students have access to personal counseling services.

The nursing program has adequate human recourses to support both classroom/theoretical and practical learning. There is a human resource plan in place beside a programme budget sufficient to recruit and retain qualified faculty members. The faculty members receive research grants, free housing, and water supply as well as free internet and booking allowance.

In order to meet the teaching loads and responsibilities of starting a new midwifery programme, the maternal health faculty expresses a need for additional 4-5 faculty members. The midwifery faculty has access to satisfactory midwifery practical experiences in a variety of settings such as hospitals, clinics, primary health care centers, communities and home settings to meet the learning needs of each student.

5. Accommodation

BPKIHS is a residential institute with 60 double rooms allocated for its PCL students, 75 single rooms for the Bsc students and 7 single rooms for master students. Further rooms are available if a new programme would start. The rooms have adequate space and are equipped with beds, cupboards and chairs for each student. There is an available visitor room, kitchen washing facilities. The hostel is safe and secure for the students. Sufficient numbers of bathrooms and common showers are offered. There is a cook who is preparing all the food for the students and there are also facilities for extracurricular activities.

B.P. Koirala Central Teaching Hospital

Clinical assessment for the Post Basic Midwifery Programme

The B.P Koirala Central Teaching Hospital is a 750 bedded hospital and was established in 1993 with financial support from the government of India. The hospital is providing services of a general hospital and is located within the campus of BPKIHS. The occupational rate is 80%. In the area of service delivery, the hospital is committed to provide services not only to those coming to its teaching hospital but also to those who are not able to do so. This, the institute does by reaching out to the community, which cannot reach the hospital. Outreach services are an integral part of the commitment, which the Institute has pledged to the legislators. It is not only reaching out to sick in the community but active promotion of positive health and through it, improvement in the status of the community health that will serve as a measure of attainment of its service goals.

1. Maternity unit

The clinical area provides emergency obstetric care service 24/7 and is functioning as a referral hospital. It covers antenatal, intrapartum and postnatal care. All visits for antenatal, intrapartum and post natal care are documented. The total number of maternity beds is 90. Out of these 5 are

labour rooms beds and 5 are delivery beds. The monthly delivery rate is about 1000 births. The caesarian section rate is just 25-30%. All the low- risk deliveries are handled by the nurses. In terms of a specific job description for the nurses providing maternal care is under process. There are yet no nurses/midwives who hold a license or registration or other forms of legal recognition to practice midwifery in Nepal, according to the international *Definition of Midwife.* The nurses are providing and signing off the initial birth certificate at all normal deliveries. In case of a caesarian section the responsibility lays with the doctor.

2. Human Resources

The maternity unit seems to have an adequate number of personnel providing care for women and their babies. The capacity of staffing in the maternity unit is totally 50 nurses. The average coverage is 3-4 nurses per shift. These nurses are allocated only to the maternity and therefore no rotation within other units within the hospital. In terms of further in-service training, 2 % of the nurses have undergone the SBA training (see table 3)

Table 3: Illustration of the human recourses at the maternity unit

No of nurses/with SBA skills	No of ANMs/with SBA skills	No of sanction posts nurses/vacant posts	No of sanction posts ANM/vacant posts	No of sanction posts Obs/gynea/ vacant posts	No of sanction posts Medical officers/vacant posts	No of sanction posts Anesthetists /vacant posts
46/2	4/0	?	?	21/?	3/?	?

The maternity unit along with the rest of the hospital accepts students only from the BKHIS. In a year there are a total of 67 students for their midwifery training (see table 4). The students are rotating within the maternity and are divided by maximum 6 students/ three shifts/24 hrs/year. Two teachers are allocated per 6 students. There is a clear supportive and collegial supervision mechanism in place, and the ward is familiar to guide the student.

Table 4: Illustration of total number of student nurses in a year on labour ward

Degree of students	**No of students/year**
Bsc Nurses	25
PCL Nurses	40
Masters Nurses	2
TOTAL	**67**

4. Equipment and supplies for birthing area

Labor ward is well equipped in terms of facility, equipment and adequate supply for demand. The equipment is further maintained and working properly. The infection prevention, instrument

birthing set and set for episiotomy repair is available per checklist (annex 10). The records and forms for appropriate documentation are accessible along with protocols/guidelines for management of postpartum hemorrhage and preeclampsia etcetera. All deliveries are recorded and partographs are filled out. In terms of drugs/medications everything per checklist (annex 10) is available with an adequate supply and stored in appropriate storage.

Annex 8

Nepalgunj Medical College, Kohalpur

Educational Assessment for the Post Basic Midwifery Programme

Nepalgunj Medical College is managed by Lord Buddha Educational Academy ltd and is located in the Mid-western Region of Nepal. The College is affiliated under Kathmandu University (K.U). Since 2000, Nepalgunj Nursing Campus is running the proficiency level (PCL) three years nursing programme and follows the TU and IOM academic calendar and curriculum. This is the only Nursing Campus in the region and was established with the purpose to develop self-reliant and devoted Nurses to cater the modern health care system. The campus is affiliated to CTEVT and is well recognized in the country. From 2013 the Nursing Campus will start the Bachelor Nursing (BN) 2 years programme. The teaching learning approached applied at the Nursing Campus is lectures, role plays, group work and clinical practice. Up to date Nepalgunj Nursing Campus has no solid midwifery program but have a willingness to take on the drafted Post Basic Midwifery Curriculum.

1. Organization and Administration

The Nursing Campus has a clear defined vision, mission and objectives for their nursing programme. In order to train professional midwives, the Campus supports the suggested philosophy; aims and objectives of the midwifery education programme and will adopt and fit it in to the existing objectives of the school. The Nursing School is running its programme mainly from the student fees. In order to start a new programme there is no need for a separate budget as this will be included in the existing programmes. Cost estimation will however be conducted along with a proposal to be send to the Board of Director to secure the financial need for the midwifery programme.

The Nursing School is presently governed by the CTEVT. From next year when the BN programme starts the bachelor programme will be governed under the Kathmandu University. In terms of development and approval of a new educational programme, the Nursing School adopts curricula that have been already approved from T.U and I.O.M.

The Vice Principal of the nursing programme is a qualified nurse with a BN background. The BN programme is outlined to prepare teachers for future management and administrations skills. The nursing programme takes into account both national and international polices and standards in order to reflect maternity workforce needs.

2. Midwifery Faculty

The Nursing Campus includes of 13 teachers and 2 additional teachers have been employed for the new BN programme. The campus predominantly consists of registered nurses with various working experience as teachers and clinical preceptors who works with experts from other disciplines as needed. There are two teachers allocated only for the midwifery part within the PCL programme and two teachers (the newly appointed once) will be the midwifery teachers within the BN programme. Majority of the existing teachers hold a bachelor degree in nursing (see table 1). The midwifery teachers have no prior experience in midwifery except from their nursing programme. All 13 teachers are working fulltime and conduct both theory and clinical education. In terms of midwifery practice, the two teachers work in close collaboration with their students within all areas of midwifery practice.

Table 1: Illustration of the Nepalgunj Nursing Campus

Designation	**Frequency**	**Academic Qualification**	**Year of experience a as tutor**	**SBA trained**	**Undertaken ToT**
Vice Principal	1	Bachelor Degree	>5	-	-
Nursing Instructor	1	Master Degree	<1	-	-
Nursing Instructor	11	Bachelor Degree	0.5-4	-	-
Total	**13**				
Newly appointed teachers for the BN programme – soon to start					
Nursing Instructor	2	*Master Degree (Midwifery)*	?	?	?

As per the current situation in Nepal none of these nurses hold a license or a registration or other form of legal recognition to practice midwifery. None of the campus members have undertaken formal teachers' preparation such as principals for adult teaching and learning, curriculum development, facilitations skills and construction and evaluation of technical/manual, oral and written student work. However it was mentioned that some of the above is incorporated in their academic qualification. The minimum requirement to become a teacher for the PCL programme is on bachelor degree. For the BN programme the minimum requirements are on a master level. There is no specific working experience required.

Table 2: Illustration of programmes undertaken at the Nepalgunj Nursing Campus

Programs under the midwifery faculty	**Entry Level**	**Length of programme**	**Number of batches/year**	**Number/batch**	**Hours of midwifery included in curriculum**	
					Theory	**Practical**
PCL Nursing	10th grade Pass SLC	3 years	1	40	300	966

2.1 The midwife clinical preceptor/clinical teacher

As none of the midwives hold a license or registration or other forms of legal recognition to practice midwifery in Nepal, according to the international *Definition of Midwife;* there are no midwives in true sense at Nepalgunj Nursing Campus. However the clinical preceptors/teachers demonstrate competencies in midwifery and have experience of midwifery practice in a variety of areas such as antenatal, intrapartum, postpartum and newborn care. The midwifery teachers works in close partnership with the maternity department and function as both clinical teachers in collaboration with the clinical midwives posted in this unit. There is no such formal preparation for clinical teaching.

The midwifery teachers both at the academic or practical sites work with professionals from other disciplines who teach midwifery in the nursing programme. The teachers provide education, support and supervision of the students in the practical learning sites. The teachers and the clinical preceptors work together to support, directly observe and evaluate students' practical learning. The evaluation is based on checklists provided from CTEVT. The ratio of teachers to students on the clinical sites is 1: 3.

3. Student Body

The Nursing Campus has got a clearly written admission policy for its nursing programme. As the Post Basic Midwifery Programme has prepared a suggested admission policy which includes the minimum requirement for admission, enrollment, selection and criteria for acceptance including entrance test, the school will take these criteria into considerations and amend if needed to match into the existing policies.

The Nursing Campus has written student policies that include expectations of students in classroom and practical areas, statements about students' rights and responsibilities, process for addressing appeals and grievances, mechanisms for students to provide feedback and ongoing evaluation of the curriculum, faculty and programme as well as requirements for successful completion of the programme. In order to start the midwifery programme these policies would be applicable to the midwifery programme.

The campus is offering a variety of practical experiences for its students in hospital and community setting to meet the health need of the country, which is also in accordance with the ICM scope of practice. The diversity of midwifery practical settings includes hospital, clinics, primary health care centers, community and homes.

4. Resources, facilities and services

To run the Post Basic Midwifery Programme it is suggested to have policies that address student and teacher safety and wellbeing in teaching and learning environments. These policies include items such as safe travel/transport to practical sites, personal safety in community settings, precautions for blood borne diseases, management of sharp injuries, and immunization protection. These policies are all related to the nursing programme at Nepalgunj Nursing Campus and would be likely to apply to the midwifery programme.

The Nursing Campus has sufficient teaching and learning resources to meet the needs of the nursing programmes. The Campus has library access included learning resources such scientific journals and reference literature in both printed (old versions) and electronic forms. Computers are available for the students including free access to internet. The classrooms are adequate and accommodate between 30-40 students. There is a separate midwifery skill laboratory that does not fully fulfill the need for the Post basic Midwifery Programme. Many items are missing although some of them are available in the nursing laboratory or at the hospital. However, the birthing models are very old and few in numbers.

The Nursing Campus applies scholarship for total three students per year (2 from disadvantage groups and 1 quota for married students).There is a human resource plan in place to support both theoretical and practical learning The Campus have support staff to help administer and organize the nursing programme and to maintain financial and other records. The college provides an

attractive package to recruit and retain faculty members such as free housing, electricity, water supply, medical allowance and bonuses.

The Campus has access to satisfactory midwifery practical experiences in a variety of settings such as hospitals, clinics, primary health care centers, communities and home settings to meet the learning needs of each student. In order to meet the responsibilities of starting a new midwifery programme, the Nursing Campus expresses need for faculty preparation and orientation on the curriculum.

5. Accommodation

The Nursing Campus has 55 double rooms. The rooms have adequate space and are equipped with beds, cupboards and chairs for each student. There is an available visitor room, kitchen and washing facilities. The hostel is safe and secure for the students. Sufficient numbers of bathrooms and common showers are offered. Rooms are available if a new programme would start at the Campus. There is a cook who is preparing all the food for the students and there are also facilities for extracurricular activities.

Nepalgunj Medical College Teaching Hospital

Clinical assessment for the Post Basic Midwifery Programme

Nepalgunj Medical College Teaching Hospital is a 1050 bedded hospital and was established in 1996. The hospital is providing services of a general hospital including public health and is located within the campus of the medical college. The hospital is under the agreement of the government providing free delivery, caesarean section antenatal check-up and investigations.

1. Maternity unit

The clinical area provides emergency obstetric care service 24/7 and is functioning as a referral hospital. It covers antenatal, intrapartum and postnatal care. All visits for antenatal, intrapartum and post natal care are documented. The total number of maternity beds is 51. Out of these 10 are labour beds and 2 are delivery beds. The monthly delivery rate is about 300 births out of 30% are caesarian sections. All low-risk deliveries are handled by the nurses. There is no specific job description for the nurses providing maternal care. There are yet no nurses/midwives who hold a license or registration or other forms of legal recognition to practice midwifery in Nepal, according

to the international *Definition of Midwife.* In terms of issuing birth certificate is the responsibility of the hospital Director.

2. Human Resources

The maternity unit seems to have an adequate number of personnel providing care for women and their babies. The capacity of staffing in the maternity unit is in total 14 nurses and 1 ANM. There is no written policy regarded sanctioned posts. In case of an increased caseload, new posts are created. The average coverage is 2-3 nurses per shift. These nurses are allocated only to the maternity and therefore no rotation within other hospital units. In terms of further in-service training, none of the nurses have undergone the SBA training (see table 3).

Table 3: Illustration of the human recourses at the maternity unit

No of nurses/with SBA skills	No of ANMs/with SBA skills	No of sanction posts nurses/vacant posts	No of sanction posts ANM/vacant posts	No of sanction posts Obs/gynea/ vacant posts	No of sanction posts Medical officers/vacant posts	No of sanction posts Anesthetists /vacant posts
14/0	1/0	No sanction posts	No sanction posts	14/?	0/0	1/0

The maternity unit accepts only students from this college. Therefore in a year there are 40 nurse students on rotation for midwifery training (see table 4). The students are rotating within the maternity and are divided by maximum 3-4 students/ three shifts/24 hrs/year. One teacher is allocated per 3 students. There is a clear supportive and collegial supervision mechanism in place, and the ward is familiar to guide the student.

Table 4: Illustration of total number of student nurses in a year on labour ward

Degree of students	**No of students/year**
PCL Nurses	40
TOTAL	**40**

3. Equipment and supplies for birthing area

Labor ward is well equipped in terms of facility, equipment and adequate supply for demand. The equipment is further maintained and working properly. The infection prevention, instrument

birthing set and set for episiotomy repair is available per checklist (annex 10). The records and forms for appropriate documentation are accessible along with protocols/guidelines for management of postpartum hemorrhage and preeclampsia etcetera. Partographs are available but not in use. In terms of drugs/medications everything per checklist (annex 10) is available with an adequate supply and stored in appropriate storage. All medication is free of cost as the hospital is a part of the Safe Motherhood program.