

**FIVE-YEAR OPERATIONAL PLAN FOR IN-SERVICE
TRAINING OF SKILLED BIRTH ATTENDANTS**

Supplementary to
National Skilled Birth Attendance Policy (2006)
And
National In-service Training Strategy for Skilled Birth Attendants (2007)

National Health Training Center
Ministry of Health and Population
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Five -Year Operational Plan for In-service Training of Skilled Birth Attendants

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1 Background

Despite notable achievements in maternal health in Nepal over the past 20 years there remains substantial area for improvement of women's health status. The maternal mortality ratio (MMR) in Nepal was recently estimated to be 281 deaths per 100,000 live births¹ (95% CI: 178-384), a reduction of almost 50 percent from the previous estimate of 539 in 1996². Best estimates of the leading causes of maternal death in Nepal include postpartum hemorrhage, eclampsia, obstructed labor, and puerperal sepsis³.

The Nepal Safe Motherhood Programme (NSMP) is a priority within the Government of Nepal's (GoN) Health Sector Strategy, which in turn guides the Tenth Five-Year Development Plan (2002-07). Among the Millennium Development Goals (MDGs) that were set in 2000, a key goal is to reduce maternal mortality by three-quarters between 1990 and 2015. The provision of assistance at birth by a Skilled Birth Attendant (SBA) has been identified as a key determinant for achieving this MDG. The percentage of births assisted by a SBA has thus been identified as an indicator of progress towards the achievement of this goal. With regards to this indicator, the targets set for Nepal are that 40 percent of all births should be assisted by an SBA by 2005, 50 percent by 2010, and 60 percent by 2015. This represents an enormous challenge, as the Nepal Demographic Health Survey 2006 (NDHS-2006) found that only 19 percent of births in Nepal are attended by health cadres that are considered to be SBAs (physician, nurse or Auxiliary Nurse Midwife (ANM)) while an additional 9 percent of births are attended by other cadres of service providers who do not qualify as SBAs. In a country where the majority of the population lives in rural areas and 81 percent of births take place at home, there are few community-level health facilities in Nepal that currently have trained SBAs on staff.

The framework for the implementation of the NSMP is the National Safe Motherhood and Newborn Health Plan 2002-2017 (revised in 2006). The purpose of this plan is "sustained increase in utilization of quality maternal health services" while its goal is "improved maternal and neonatal health". Based on this plan, the Ministry of Health and Population (MoHP) has taken concrete actions to increase the percentage of births attended by SBAs. The MoHP developed a National Policy on Skilled Birth Attendants (2006) which forms the basis of the national SBA program. The National In-Service Training Strategy for Skilled Birth Attendants, which was approved in 2007, describes approaches for training eligible public sector service providers (doctors, nurses and ANMs) to be SBAs. This strategy paper noted that a five-year operational plan for in-service SBA training should be developed.

Implementation of the SBA program requires the mobilization of a range of resources and inputs. Current efforts in this regard include strengthening hospitals to serve as training sites for SBAs, developing training curricula and materials, and planning and implementing training activities. The National Health Training Centre (NHTC), as the governmental body responsible for in-service training of health providers, plays the lead role in managing the expansion of SBA training sites and arranging for training of existing providers. NHTC has worked with professional councils and associations in the field of medicine to develop accreditation processes for SBA training sites and certification processes for providers. At the

¹ *Nepal Demographic and Health Survey 2006*. Kathmandu, Ministry of Health and Population, New ERA, Macro International Inc., 2007. (NDHS2006)

² *Nepal Family Health Survey*. Kathmandu, Family Health Division, Department of Health Services, Ministry of Health, Government of Nepal, New ERA, Macro International Inc., 1996.

³ Pathak LR et al. *Maternal Mortality and Morbidity Study*. Kathmandu, Family Health Division, Department of Health Services, Ministry of Health, Government of Nepal, 1998.

same time, key training institutions at the Institute of Medicine (IoM) and the professional medical councils in Nepal have revised pre-service training curricula while simultaneously strengthening and accrediting their training institutions to ensure that all physicians and nurses who graduate from their institutions in the future be qualified SBAs. Thus, while in-service training is the key strategy for meeting targets for production of SBAs over the coming decade, medium and long-term needs for SBAs in Nepal will be primarily met through pre-service training programs. The Institute of Medicine is currently preparing a strategic and operational plan for pre-service training of SBAs.

Public-private partnership also plays an important role in the development of SBAs. A number of private or non-government medical institutions have been or will be developed into SBA training sites where service providers from the public and non-government sectors are trained to be SBAs. The current government system for contracting private institutions to provide training requires a bidding process that results in a high priority being placed on the cost of the training while no weight is given to the quality of the training. This system will need to be revised if the private sector is to play a meaningful role in the production of effective SBAs who can provide high-quality services.

The SBA Forum—jointly chaired by the NHTC and the Family Health Division (FHD) of the Department of Health Services (DoHS)—was established to provide strategic oversight and guidance to the national effort to develop SBAs. Members of the Forum represent relevant government departments, professional associations and councils, training institutions and international partners. The Forum plays a key advocacy role for skilled birth attendance and wider human resource issues in the health sector. The SBA Forum provides support to the national SBA program, linking with the overall human resource production and management planning through the Support to Safe Motherhood Advisory Group in three main areas: i) strategic direction and planning support; ii) technical support; and, iii) advocacy and information sharing.

In the document National In-Service Training Strategy for Skilled Birth Attendants, the MoHP set an ambitious target for producing SBAs by 2012. Details regarding how this target will be achieved are provided in subsequent sections of this document. The success of the MoHP in meeting this target will depend in large part on careful planning and effective coordination of the inputs of a wide range of partners, including government bodies, external development agencies, training institutions and professional associations. Through July 15, 2008 a total of 381 providers (including master trainers) were trained as SBAs in nine accredited SBA training sites.

The development of a cadre of SBAs in Nepal that provides effective maternal health services that are accessible to all women in Nepal involves far more than training. Additional issues that must be addressed include the deployment and retention of SBAs in areas where they are most needed and the development of an enabling environment at SBAs' work sites that supports the provision of quality services. The FHD has overall responsibility for providing safe motherhood services, including skilled birth attendance, and thus works closely with NHTC to ensure that the skills gained by SBAs during training can be effectively practiced in the facilities where they provide services. The MoHP, in turn, is responsible for health sector policies that ensure the availability of quality services throughout the country.

Two key dates are used in this document with respect to the SBA target: 2012 and 2015. The final MDG target with regards to SBA coverage of births stipulates that 60 percent of births

in Nepal should be attended by SBAs in 2015. In order to achieve this target, the MoHP has decided that the targeted number of SBAs should be trained and posted by 2012 so that they have ample time to increase demand for their services and achieve the 2015 MDG target.

2 Rationale

Training a large number of service providers to be SBAs and providing them with a workplace environment that enables them to function effectively is a complex and important effort. Crucial to the success of this endeavor is the planning and projection of human resource needs for deployment and training at different levels of health facilities across Nepal. This document addresses this need by describing how the required number of SBAs will be trained by 2012.

The ultimate aim in Nepal is that all district hospitals will provide Comprehensive Emergency Obstetric Care (CEOC) services, all primary health care centers (PHCCs) will provide Basic Emergency Obstetric Care (BEOC) services and all health posts will eventually have birthing centers that provide skilled birth attendance for normal deliveries. BEOC services are currently available in only 80 public and private health institutions in 52 districts while CEOC services are available in 44 public and private institutions across 33 districts.

There are currently major shortfalls in staffing of cadres that can serve as SBAs, particularly in rural areas and for the cadres of physicians and staff nurses. In order to address these gaps, long-term plans must be developed to provide a range of safe motherhood training to appropriate service providers in the public and private sectors. In addition, strategies must be developed to deploy staff where they are needed and retain them at their work sites. This includes ensuring that trained staff receive sufficient professional and personal support at their workplace as well as adequate remuneration for their services. Considerable resources have recently been allocated to improve physical facilities, increase community involvement in local facility management and expand demand for services. These actions will help to make SBA services more accessible.

This document describes key aspects of the effort to train large numbers of SBAs by 2012. This plan fully supports the National Policy on Skilled Birth Attendants and operationalizes the National In-Service Training Strategy for Skilled Birth Attendants. The realization of the plans that are outlined in this document, which provide projections for future training needs and describes how they will be met, will require collaboration among a range of different government and non-government safe motherhood stakeholders including the Human Resource Management Forum in the MoHP.

3 Purpose and objectives

The purpose of this document is to describe short-term plans to develop the human resources needed to implement the National Policy on Skilled Birth Attendants, with a specific emphasis on the operationalization of the National In-Service Training Strategy for Skilled Birth Attendants.

The objectives of this document are the following:

1. Identify national requirements for potential SBAs at different levels of the health system as required to meet SBA production targets.
2. Guide the systematic development of human resources by 2012 to ensure that targets for production of SBAs are achieved.
3. Describe key elements of the training system that will be used to produce SBAs with core SBA skills over the duration of the plan such as the selection of training participants and the preparation of SBA training sites.

The first three sections of this document have provided background information on the plan to expand the number of SBAs in Nepal while also describing the rationale for, purpose, and objectives of this effort. Section Four below provides specific information on how SBA training sites are to be strengthened and expanded while Section Five outlines the projected need for trained SBAs in Nepal. Section Six describes how the SBA in-service training program will be implemented. This document then concludes with Section Seven in which key aspects of how an enabling environment for SBAs will be developed are briefly addressed.

4 Strengthening and expanding SBA in-service training sites

Section highlights

- ◆ Description of the steps that are followed in order to develop a SBA training site.
- ◆ List and description of currently operational and planned (future) SBA training sites.
- ◆ Description of how a cadre of SBA trainers at a new SBA training site is developed.
- ◆ Criteria related to types of training that can be conducted at a SBA training site.

4.1 Preparation and establishment of SBA training sites

The selection and development of hospitals to serve as SBA in-service training (IST) sites is a pillar of the SBA IST program. The first hospitals to be established as SBA IST sites were Maternity Hospital in Kathmandu, Koshi Zonal Hospital in Biratnagar, and Bharatpur Hospital in Chitwan. Following the establishment of these sites in March/April 2007, six additional sites were established through July 2008 and an additional five sites were established in November/December 2008. AMDA Hospital in Jhapa was the first non-government facility to partner with NHTC and become a SBA training site. Non-government facilities have an interest in becoming SBA training sites as it allows them to improve the quality of their services, their infrastructure and training capacity, and also to earn a limited amount of income. Basic information about the fourteen established SBA training sites is provided in the table below and includes date of establishment, deliveries per year, types and number of trainings conducted through July 2008, number of SBA trainers, partner organizations, and management structure. All fourteen sites provide Comprehensive Emergency Obstetric Care (CEOC) services.

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Table 1: Operational SBA training sites, establishment date, case load, trainings conducted through July 15, 2008, number of trainers, support organization and management structure

#	Name of site	Establishment date	Deliveries per year ⁴	Training type	# conducted	# of trainers		Support org.	Mngt. structure
						nurse	physician		
1	Maternity Hospital, Kathmandu	March 2007	12,624	15 day 30 day 60 day	5 1 3	7	7	NHTC / SSMP	Government
2	Koshi Zonal Hospital, Biratnagar	March 2007	8,350	15 day 30 day 60 day	2 1 4	6	3	NHTC / SSMP	Government
3	Bharatpur Hospital, Chitwan	April 2007	5,244	15 day 30 day 60 day	3 2 2	6	5	NHTC / NSI	Government
4	Seti Zonal Hospital, Dhangadi	November 2007	3,000	30 day 60 day	3 2	4	2	NHTC / SSMP	Government
5	Lumbini Zonal Hospital, Butwal	November 2007	3,238	60 day	2	4	2	NHTC / SSMP	Government
6	Baglung District Hospital, Baglung	December 2007	1,080	30 day 60 day	2 2	4	2	NHTC / SSMP	Government
7	AMDA Hospital, Jhapa	November 2007	800	30 day	2	--	--	NHTC / NSI	NGO
8	TU Teaching Hospital, Kathmandu	May 2008	7,860	15 day	1	1	5	NHTC / SSMP	Govt. (IoM)
9	Western Regional Hospital, Pokhara	June 2008	7,138	15 day	1	4	3	NHTC / SSMP	Government
10	Midwestern Regional Hospital, Surkhet	December 2008	2,336	N/A	N/A	--	--	NHTC / SSMP	Government
11	Bheri Zonal Hospital, Nepalgunj	November 2008	2,700	N/A	N/A	--	--	NHTC / UNICEF	Government
12	Dhulikhel Hospital	December 2008	1,004	N/A	N/A	--	--	NHTC / UNICEF	Private
13	Sagarmatha Zonal Hospital, Siraha	November 2008	800	N/A	N/A	--	--	NHTC / UNICEF	Government
14	Dang District Hospital, Dang	November 2008	780	N/A	N/A	--	--	NHTC / UNICEF	Government

⁴Source: Data provided by individual hospitals.

NHTC oversees the process of strengthening and preparing hospitals so that they can conduct SBA training courses. A hospital must have adequate case load of deliveries and an adequate number of potential SBA trainers in order for it to be assessed for its suitability to be a SBA training site. The hospital should also provide an adequate range of Basic Emergency Obstetric Care (BEOC) and CEOC services—particularly manual vacuum aspiration (MVA), vacuum deliveries and manual removal of the placenta (MRP).

In the first step of the SBA training site assessment process, a team composed of representatives from NHTC, FHD, Support to the Safe Motherhood Programme (SSMP), and a SBA Master Trainer conducts a needs assessment of the prospective SBA training site and then meets with the hospital management to review the strengths and weaknesses of the site. Weaknesses that the hospital itself needs to address are differentiated from those that require external assistance from NHTC or other partners. The needs assessment team then prepares and submits a report to NHTC that documents the findings of the assessment, lists recommendations for further action, and identifies i) support that is required to strengthen the site for SBA training and ii) weaknesses that should be corrected before SBA training courses begin. This report notes that NHTC and its partner organization will work together to provide inputs to strengthen the capacity of the site to conduct SBA training courses. Gaps that require corrective action are then documented in a letter that is prepared by NHTC and sent to the hospital.

Following the needs assessment, the hospital staff uses a quality improvement site self-assessment tool to evaluate the strengths and weaknesses of the hospital with regards to serving as a SBA training site. Over the following months the hospital management, NHTC and other partner organizations work together to strengthen the ability of the facility to conduct quality SBA trainings. Key facility-strengthening activities that take place during this time include SBA training for hospital staff members who will serve as SBA Trainers; participation of potential SBA Trainers in the Clinical Training Skills course where they learn about the use of SBA instructional materials; orientation of hospital staff regarding the SBA program; core skill updates for appropriate clinical providers at the hospital; and, the physical preparation of the hospital to serve as a SBA training site including the provision of equipment, furniture, anatomical models and other supplies. Procedures that guide the selection and preparation of SBA trainers are further detailed in Section 4.3.

Prior to the commencement of the first SBA training course at a new site, NHTC and its partner organization review the initial needs assessment report and evaluate the extent to which required inputs have been provided. Once the NHTC has determined that the hospital has adequately addressed all major weaknesses, the NHTC sends an official letter to the hospital certifying it to conduct its first SBA training. The issuance of this letter serves as the official certification of the hospital as a SBA training site. NHTC and other support organizations continue to work with the training sites even after SBA training activities have started in a continuing effort to strengthen the ability of the site to conduct high-quality, effective SBA training activities.

4.2 Development of additional SBA training sites

In addition to the 14 hospitals listed above that have been formally recognized as SBA training sites, 14 other hospitals are being considered for development as SBA training sites in the future. Among the hospitals listed in the table below, five are projected to begin conducting SBA training activities in 2009. The development of nine additional hospitals as SBA training sites (numbers 6-14 in the table below) will be considered in the future.

Table 2: Planned SBA training sites, anticipated preparation date, case load, support organization and management structure

#	Name of site	Preparation date	Deliveries per year ⁵	Support org.	Mngt. Structure
1	Tansen Mission Hospital, Palpa	2009	600	NHTC / NSI	NGO
2	Sub-Regional Hospital, Birgunj	2009	6,000	NHTC / SSMP	Government
3	Mechi Zonal Hospital, Jhapa	2009	1,800	NHTC / SSMP	Government
4	Narayani Zonal Hospital, Hetauda	2009	1,200	NHTC / SSMP	Government
5	Mahakali Zonal Hospital, Mahendranagar	2009	TBD	NHTC / SSMP	Government
SBA training sites may be established at the facilities listed below depending on necessity and feasibility					
6	Janakpur Zonal Hospital, Janakpur	TBD	TBD	NHTC/SSMP/ Mehendi	Government
7	Patan Hospital	TBD	7,000	NHTC / NSI	Govt. / NGO
8	TEAM Hospital, Dadeldhura	TBD	700	NHTC / NSI	NGO
9	Lamjung District Community Hospital, Lamjung	TBD	600	NHTC / NSI	NGO
10	Kathmandu Medical College	TBD	TBD	NHTC / SSMP	Private
11	B.P. Koirala Institute of Health Sciences, Dharan	TBD	TBD	NHTC / SSMP	Government / private
12	Nepalgunj Medical College, Nepalgunj	TBD	TBD	NHTC / SSMP	Private
13	Dhading District Hospital, Dhading	TBD	TBD	NHTC / SSMP	Government
14	Bhim Hospital, Bhairawa	TBD	TBD	NHTC / SSMP	Government

Figure 1 below combines most of the information presented in the two preceding tables and describes the location of currently operational SBA training sites as well as those that are scheduled for preparation in 2009.

4.3 Selection and preparation of SBA trainers at new SBA training sites

The development of a cadre of SBA trainers at a SBA training site occurs during the site preparation phase prior to the first SBA training course. Information is collected during the initial needs assessment of the hospital regarding all staff members who have the potential to become SBA Trainers or SBA Clinical Supervisors. SBA Trainers are qualified to both teach classes during SBA training courses as well as to provide supervision during clinical training for SBA trainees. SBA Clinical Supervisors do not teach classes but do supervise SBA trainees during clinical training. A SBA Clinical Supervisor needs to meet any one of the following three criteria: i) successful participation in a SBA trainers preparation workshop; ii) certification as a SBA; or, iii) completion of a SBA Skills Standardization course. SBA Trainers must meet all of the following qualifying criteria: i) hold an appropriate degree (nurse or physician); ii) actively provide maternal care; iii) be certified as a SBA; and, iv) have participated successfully in the Clinical Training Skills (CTS) course for SBAs that is conducted by NHTC. Since most hospitals do not have staff members who meet all of these criteria, NHTC arranges for the strongest staff members to participate in a SBA training course and/or a CTS course, as required.

⁵ Source: Data provided by individual hospitals.

The site can begin to conduct SBA training courses following i) the preparation of at least three or four staff members as SBA Trainers and ii) the provision of learning materials (including teaching models) to the site. An experienced SBA trainer from an external SBA training site provides assistance during the first training course in a new SBA training site where other safe motherhood trainings (such as MRT or BEOC) have not been conducted previously. Alternatively, a new SBA trainer from the new SBA training site can go to an established SBA training site during the conduct of a SBA training course and serve as a co-trainer in order to become prepared to independently manage SBA training programs at his or her own hospital. In general, NHTC seeks to prepare a minimum of three or four SBA Trainers at each SBA training site as well as two or three SBA Clinical Supervisors.

4.4 Criteria regarding type of training that can be conducted at SBA training sites

There are three important criteria that limit the type of SBA training that can be effectively conducted in a given SBA training site.

The first concerns the caseload of deliveries at the training site. The training site must have a sufficient caseload so that participants are able to develop their competency in delivery-related SBA core skills to a satisfactory level during the clinical portion of their training. SBA training sites that have an average of less than 60 deliveries per month are not used for short-duration courses as they do not offer sufficient clinical practice opportunities to meet training needs. Alternatively, some SBA training sites with a low caseload conduct training courses with a limited number of participants in order to ensure that each participant has adequate opportunities to develop clinical skills.

A second criterion involves the conduct of SBA training for physicians. These trainings are best conducted in sites where there are strong physician SBA Trainers and where there is a strong spirit of cooperation and support among the members of the training team. SBA training sites in Bharatpur, Maternity Hospital (Kathmandu), Teaching Hospital (Kathmandu) and the Western Regional Hospital in Pokhara have successfully conducted SBA training courses for physicians. SBA trainings for physicians have also been conducted in Koshi and Seti Regional Hospitals and Lumbini Zonal Hospital.

A final criterion that must be met is that the training site must allow all trainees to participate in “hands-on” clinical training including deliveries. For example, TUTH only allows physicians to participate directly in deliveries. For this reason, only physicians can participate in SBA training courses at TUTH.

5 Anticipated need for skilled birth attendants in Nepal

Section highlights

- ◆ Number of SBAs required to meet MDG target with regards to SBAs.
- ◆ Calculation of anticipated loss of trained SBAs through attrition.
- ◆ Estimated number of government maternal health providers eligible to serve as SBAs.
- ◆ Comparison of MDG target with estimated number of potential SBAs.
- ◆ Expected production of SBAs through pre-service training by 2012.

5.1 National standards and projected need for SBAs by 2012

It was noted in the SBA in-service training strategy document⁶ (hereafter called “strategy document”) that a total of 5,113 SBAs should be trained by 2012 in order to meet the MDG target of 60 percent coverage of births by SBAs in 2015. The total of 5,113 SBAs included 4,573 SBAs who will provide services in 2012 plus an additional 540 SBAs who will be trained to compensate for anticipated attrition of SBAs between 2007 and 2012.

The technique that has been used in this document to calculate the number of SBAs that will be trained by 2012 to meet the MDG target has been changed slightly from the technique that was originally used in the strategy document. The calculation technique has been changed for three principal reasons:

1. To shift the basis of the calculation from “number of expected pregnancies per SBA” to “number of expected births per SBA”. This has been done for two reasons: i) because the international WHO standard⁷ regarding ideal SBA case load is expressed in terms of “births per SBA”, and thus calculating the number of SBAs required in Nepal based on births, rather than pregnancies, brings Nepal in line with international norms; and, ii) because the basis of the MDG-related target (60% of births in Nepal will be attended by a SBA by 2015) is births and not pregnancies.
2. To reflect updated fertility data which show that the number of expected births in 2012 is lower than previously estimated
3. To calculate “anticipated attrition” using a robust methodology under which the expected attrition rate is applied to the anticipated number of SBAs that will have been trained on a year-by-year basis.

In short, changes in the calculation technique described above strengthen the rigor and therefore the validity of the estimate of the number of SBAs that will be required. At the same time, MoHP officials indicated that they did not want for the overall target number of SBAs that will be trained by 2012 to be notably reduced from the target presented in the strategy document. Parameters for the updated calculation have thus been adjusted somewhat to produce a target number that is similar to the original target number. Specifically, the following parameters are used in the updated calculation:

⁶National Health Training Center. *National In-Service Training Strategy for Skilled Birth Attendants (2006-2012)*. Ministry of Health and Population, Government of Nepal. Kathmandu, 2007.

⁷The World Health Organization standard for skilled birth attendance is 175 births per SBA per year. *Making Pregnancy Safer: The Critical Role of the Skilled Attendant: A Joint Statement* WHO, ICM, FIGO. 2004.

1. Expected births are used in place of expected pregnancies;
2. new estimates of the number of expected births, recently calculated by Family Health Division, are substituted for previous estimates of expected pregnancies;
3. the previous ratio of “one SBA per 50/100/150 expected pregnancies in the mountains/hills/terai” has been replaced by “one SBA per 40/80/120 expected births in the mountains/hills/terai”; and,
4. an anticipated attrition rate of four percent per year is applied against the total number of SBAs at the start of each fiscal year plus half of the SBAs trained during that fiscal year.

Table 3 presents the revised calculation of the number of SBAs that will be required to provide 60 percent coverage of estimated births in 2012. The total number required (4,515) is very close to the number (4,573) that was calculated in the strategy document.

Table 3: Number of SBAs required in 2012 to attend 60 percent of estimated births

Ecological area	Estimated births in 2012 ⁸	Births attended per SBA	# of SBAs needed for 60% coverage of estimated births ⁹
Mountain areas	51,093	40	766
Hill areas	256,373	80	1923
Terai areas	365,264	100	1826
Total	672,730		4515

Planning for attrition

It is important to carefully estimate the number of SBAs who will be lost via attrition through 2012. The strategy document estimated that 90 SBAs will be lost to attrition per year over six years between 2007 and 2012 for a total of 540 SBAs lost through attrition. The table below estimates attrition using an alternative technique—on a year-by-year basis, based on the projected number of SBAs providing services during the previous year. The number of SBAs trained each year has been set in order to yield a total of 4,515 SBAs providing services by June 30, 2012 (i.e., the revised MDG target presented in Table 3). An attrition rate of four percent per year (considered to be a conservative estimate) is used and is applied against the total number of SBAs at the start of the fiscal year plus half of the SBAs trained during the fiscal year. A sample calculation is described in the footnote¹⁰.

Table 4: Estimated attrition of SBAs over duration of five-year plan

1. Fiscal year ending ...	2. # SBAs trained during fiscal year	3. SBAs lost through attrition during fiscal year	4. Total # of SBAs at end of fiscal year
July 2008	381	8	373
July 2009	750	30	1093
July 2010	1100	66	2127
July 2011	1300	111	3316
July 2012	1359	160	4515
Total	4890	375	

⁸ Unpublished estimate. Government of Nepal, Department of Health Services, Family Health Division. March 2009.

⁹ For example, if each SBA in mountain areas attends 40 births, then 1277 (51,093/40) SBAs would be required for 100 percent coverage. For 60 percent coverage, 1277 x 60 percent = 766 SBAs required.

¹⁰ For example, to calculate the total number of SBAs at the end of the fiscal year ending July 2010, we apply 4 percent attrition to the total number of SBAs present in July 2009 (0.04 x 1093 = 43.72 SBAs leaving service) and also apply 4 percent attrition to half of the SBAs who are trained during the fiscal year (0.04 x (1100/2) = 22 SBAs leaving service). The result is a total attrition of 43.72 + 22 = 65.72 SBAs.

Table 4 presents data for three factors: the number of SBAs trained each year, the anticipated number of SBAs lost to attrition each year, and the total number of SBAs providing services at the end of each fiscal year. The number of SBAs trained during the fiscal year (Column 2) is based on actual number of SBAs trained for the fiscal year ending July 2008, plans for SBA training courses for the current fiscal year (2008-2009), and projected number of SBAs who will be trained during the next three fiscal years.

As Table 4 illustrates, an estimated 375 SBAs will be lost through attrition between July 2007 and July 2012. This estimate is somewhat less than the estimate of 540 that is presented in the strategy document. Combining the estimates of the required number of SBAs providing services in 2012 (4,515) with the 375 SBAs who will be lost through attrition, a minimum of 4,890 SBAs will need to be trained by 2012 to meet the MDG target

Summary of estimated number of SBAs to be trained by June 2012

- ◆ A minimum of 4,890 SBAs should be trained through in-service training by July 2012 in order to meet the MDG target of 60 percent coverage of births by 2015.
- ◆ The total of 4,890 SBAs represents 4,515 SBAs who will provide services in 2012 and an estimated 375 SBAs who will be lost to attrition between 2007 and 2012.

5.2 Number of potential SBAs in government and non-government health facilities

The number of SBAs that must be trained to meet the MDG target must be compared with the number of potential SBAs that serve in government and non-government health facilities in order to determine whether there is a sufficient number of qualified service providers to meet the target. This section of the document first discusses the number of potential SBAs in government health facilities and then turns to providers in non-government facilities.

It should be noted that the number of positions allocated for potential SBAs in the government health system is greater than the number of service providers who actually fill these positions and provide services, as verified in the report of a recent study conducted under the Health Sector Reform Support Program¹¹. This occurs due to reasons that include frequent staff transfers, vacant positions (often in remote and undesirable locations) and staff taking extended (and often unauthorized) leave. The number of positions for potential SBAs presented below therefore overestimate the number of service providers who will actually fill those positions and provide SBA services once they are trained.

In addition, it must be recognized that providers in the majority of health posts (HPs) in Nepal do not currently provide delivery services to the communities they serve. Thus, while this document outlines a plan to train a large number of ANMs who are based in HPs, it will be a substantial challenge for them to develop active delivery practices. This highlights the need for complementary strategies to be developed that create demand for SBAs at the community-level if the training of a large number of SBAs is to result in the increased utilization of SBAs by mothers in Nepal

¹¹ RTI International, 2008. *Human Resource Strategies for Safe Delivery*. Research Triangle Park, NC, USA.

Table 5: Currently existing positions (2008) and planned (in 2012) number of ANMs, nurses and physicians who are eligible to be trained as SBAs at various levels of public health facilities

Type of facility	Number of facilities 2008	Number of facilities 2012	ANM 2008	ANM 2012	Nurse 2008	Nurse 2012	Physician 2008	Physician 2012
Sub-health posts	3127	2127	—	—	—	—	—	—
Health posts	698	1698	698	1698	—	—	—	—
PHCC	210	210	630	630	210	210	210	210
District hospitals	63	63	123	123	205	245	173	173
Zonal hospitals	9	9	32	82	217	267	96	96
Sub-regional / Regional hospitals	3	3	3	23	225	255	78	78
Central Referral Hospitals	3	3	20	20	168	168	78	78
Contract providers	—	—	200	1,000	25	25	6	6
Private teaching colleges	16	16	—	—	32	32	32	32
Total	4129	4129	1706	3576	1082	1202	673	673
Total for 2008	3461							
Total for 2012	5451							

Notes for table above

- ◆ Numbers of existing staff positions are presented as outlined in the DoHS Operating Manual (2064). The basis for the numbers presented in the table for hospital-based staff can be found in Annex 1 of this operational plan. Totals above include all ANMs, nurses and physicians for zonal and district hospitals, as all providers in those institutions provide maternal care. Totals for regional and central referral hospitals only include those providers who provide care to mothers and newborns.
- ◆ **District hospitals:** It is anticipated that Hospital Development Boards (HDBs) will hire 40 extra staff nurses by 2012.
- ◆ **Zonal hospitals:** It is anticipated that HDBs will hire 50 extra ANMs and 50 extra staff nurses by 2012.
- ◆ **Sub-regional and regional hospitals:** It is anticipated that HDBs will hire 20 extra ANMs and 30 extra staff nurses by 2012.
- ◆ **Upgrading SHPs to HPs:** The government plans to convert 1,000 SHPs to HPs between 2008 and 2011. This will require hiring 1,000 ANMs to staff the newly upgraded HPs. It is assumed that this will take place.
- ◆ **Contract providers:** This row in the table represents service providers who have been hired on short-term contracts by FHD to enable the provision of 24-hour delivery services in selected health posts, PHCCs, and hospitals throughout Nepal. These positions are budgeted for by FHD on a year-by-year basis. It is expected that local bodies will contract these providers if funds are not available from FHD in the future. The number of contract providers that is presented for 2008 is based on existing information; the number presented for 2012 represents a projection, based on the assumption that the number of ANMs that are hired to increase the availability of 24-hour delivery services will increase incrementally over the next four years until 2012.
- ◆ **Private teaching colleges:** There are 13 private NGO hospitals listed in the HMIS. The inclusion of Nepal Medical College, Kathmandu Medical College and Nepalgunj Medical College increases to 16 the number of private teaching institutions where qualified SBA-certified instructors should train and supervise students to become SBAs. It is assumed that 4 instructors from each site (2 physicians and 2 nurses) require SBA training.

Table 5 presents the total number of positions that are allocated within the government health system for potential SBAs—that is, ANMs, nurses, and eligible physicians—for both the current year (2008) as well as for the year (2012) of the GoN goal for deploying 4,515 SBAs. The data in Table 5 are based on the number of government service providers that are allocated to each facility as outlined in the DoHS Operating Manual (2064) as well as on the demonstrated capacity of some hospitals to hire additional staff using funds raised through fee collection. Estimates that are presented for 2012 take into account plans that were presented in the government budget for FY 2009-2010 to convert 1,000 sub-health posts

(SHPs) to HPs by 2012. This plan, if realized, will result in 1,000 additional ANMs being hired to staff those facilities. In addition, service providers that have been hired on short-term contracts to enable the provision of 24-hour delivery services at selected community- and district-level health facilities have also been included in the table. These providers clearly should be trained as SBAs, as they have been hired specifically to provide delivery services. The number of contract providers that are projected to be providing services in 2012 is an ambitious estimate that is based on current trends and plans.

In the longer term, the GoN's Human Resource Strategy (2003) document describes the government's plan to increase the number of potential SBAs providing services at community health facilities by 2017. This strategy commits the government to staff each HP with two ANMs and one staff nurse and each SHP with two ANMs—a plan that will greatly increase the number of potential SBAs in Nepal. Table 6 below presents estimates of potential SBAs in the government health services for 2008 and 2017. Estimates for 2017 reflect changes in staffing patterns in SHPs and HPs as outlined in the human resource strategy document. Contract providers (nurses and ANMs only) are not included in the estimates for 2017 as their role will be filled by the expanded plans for permanent staff positions as described in the human resource strategy document. If this plan is realized, a huge pool of service providers will be eligible for training as SBAs.

Table 6: Currently existing positions (2008) and planned (in 2017) number of ANMs, nurses and physicians who are eligible to be trained as SBAs at various levels of public health facilities

Type of facility	Number of facilities 2008	Number of facilities 2017	ANM 2008	ANM 2017	Nurse 2008	Nurse 2017	Physician 2008	Physician 2017
SHP	3127	2127	—	4254	—	—	—	—
HP	698	1698	698	3396	—	1698	—	—
PHCC	210	210	630	630	210	210	210	210
District hospitals	63	63	123	123	205	245	173	173
Zonal hospitals	9	9	32	82	217	267	96	96
Sub-regional / Regional hospitals	3	3	3	23	225	255	78	78
Central Referral Hospitals	3	3	20	20	168	168	78	78
Contract providers	—	—	200	—	25	—	6	6
Private teaching colleges	16	16	—	—	32	32	32	32
Total	4129	4129	1706	8528	1082	2875	673	673
Total for 2008	3461							
Total for 2017	12076							

Potential SBAs in non-government health facilities

The achievement of the target of 60 percent coverage of births by SBAs will be measured through the DHS and will thus include births that are attended by private sector providers including community hospitals and NGOs. Among the 18 percent of births in Nepal that take place in health facilities in Nepal, the NDHS-2006 found that four percent occur in facilities operated by non-government organizations while one percent take place in private facilities. It is clear that providers in these types of facilities will need to be trained as SBAs if the GoN target of 60 percent attendance of births by SBAs by 2012 is to be reached. The GoN needs to develop a clear policy regarding whether providers from these facilities must be trained as SBAs and what type of support (if any) the government will provide for their training. The

NHTC has allocated funds to train 48 providers from non-government health facilities as SBAs during the current fiscal year (2008-2009), demonstrating that the government is ready to assume some responsibility for training providers from outside the government system to provide SBA services.

This document does not attempt to estimate the number of service providers in community hospitals, NGO-run and private health facilities who are eligible for and would benefit from SBA training. However, the importance of training SBAs who serve in these facilities—especially in community hospitals and NGO-run facilities that have large delivery practices—should not be underestimated. The policy and plans of the government for training non-government service providers to be SBAs should be clarified during the coming year.

A compromise that may address the needs and capabilities of both the public and private sectors with regards to SBA training is for the government and private health care institutions to negotiate a public-private partnership under which NHTC provides SBA training to private sector providers while requiring that the training participants pay for their own per diem and travel costs. NHTC could open training sites in (private) teaching hospitals as necessary to create adequate training seats for private sector providers. This would ensure that the training of private sector providers as SBAs would not have an adverse effect on training of providers from government health facilities.

5.3 Comparison of projected need for SBAs to potential number of SBAs

The previous two sections of this chapter have presented methodologies for producing two estimates: 1) the need for SBAs in 2012 and 2) the number of positions in the government health services for service providers who are eligible to serve as SBAs. The relationship between the two estimates should be clear: The production of a targeted number of SBAs is dependent upon an equal or greater number of positions existing in the health services (which may include both government and non-government service providers). The table below presents the two estimates.

Table 7: Comparison of number of SBAs required to meet MDG targets with the projected number of posts in GoN health services in 2012 for service providers eligible to serve as SBA

# of SBAs required by 2012 to achieve 60 % coverage of births by 2015	Projected # of posts in GoN health services in 2012 for service providers eligible to serve as SBA
4,515	5,451

The data in the table above make it clear that the number of SBAs that is required to meet the MDG target is exceeded by the projected number of SBA-eligible positions in the government health services in 2012. This projection assumes that the government will i) convert 1,000 SHPs to HPs by 2012 and staff all of them with ANMs and ii) hire 1,000 additional ANMs on a contract basis by 2012 to provide 24-hour delivery services (for which two ANMs are required) in selected health posts. The failure to achieve these ambitious targets may result in an insufficient number of personnel in government health facilities to train to meet the MDG target. As noted above, some government posts are vacant at any given time, thereby effectively reducing the number of service providers who can be trained as SBAs.

In order to complement plans to provide SBA training to providers in government health facilities, it is important to develop plans to make SBA training both mandatory and available to service providers in private or NGO-run health facilities where SBA-related services are

provided. Training providers from these facilities will be crucial in the effort to meet the MDG target

Summary of the comparison of the number of SBAs required to meet the MDG target with the potential number of SBAs in government system

- ◆ 4,515 SBAs are needed to provide services in 2012 to meet the MDG target.
- ◆ 4,890 SBAs will need to be trained through IST by June 2012 in order to meet the target, as an estimated 375 SBAs will be lost to attrition.
- ◆ According to current plans and trends, there will be positions for 5,451 potential SBAs in the government health services in 2012. It should be noted that some of these positions will remain vacant, thereby reducing the number of potential SBAs.
- ◆ The development of plans to train service providers as SBAs in non-government facilities will provide insurance to the plan to achieve the target number of SBAs by 2012.

5.4 Contribution of SBA pre-service training programs through 2012

The curricula of pre-service training (PST) programs in Nepal for physicians and nurses have been recently revised to include SBA-related content so that all future graduates of these programs emerge as SBAs. Since this process will take some time to produce providers with core SBA skills, the contribution of PST programs towards producing SBAs for the 2012 target will be extremely limited. It is expected that 310 individuals who will graduate from the certificate nursing program at IoM in 2011 will have been trained as SBAs. The first graduates of the MBBS and BScN programs at IoM who will be trained as SBAs will graduate in 2015.

Although ANMs will constitute the majority of SBAs in Nepal, the quality and duration of their pre-service education is not sufficient to train them to be qualified SBAs during their PST. It therefore appears that ANMs will be trained and certified as SBAs through in-service training for the foreseeable future. In order for ANMs to be certified as SBAs during their pre-service training, it will be necessary to review and update the pre-service curricula and increase the duration of the ANM pre-service training. In addition, it will be important to introduce rigorous criteria for the accreditation of institutions that provide PST to ANMs including strengthening their clinical practicum sites and enhancing the support that students receive during their training.

It is important to note that the 310 individuals who will graduate from the certificate nursing program at IoM in 2011, trained as SBAs, cannot be counted towards the MDG target for production of SBAs as there is no guarantee that they will be hired by government or non-government facilities and then practice as SBAs. In-service training remains the primary strategy towards meeting the 2012 SBA target.

This chapter has described the target for SBA production and the potential of the government and non-government health care system to provide manpower to meet that target. The following chapter describes achievements to date of the SBA IST program and plans for further training through 2012.

6 Implementation of SBA in-service training program

Section highlights
<ul style="list-style-type: none"> ◆ Description of the SBA training courses. ◆ Description of how participants in SBA training courses are selected and certified. ◆ Description of accomplishments of SBA in-service training courses through July 2008. ◆ Detailed plan of SBA training courses to be conducted from July 2008 to July 2009. ◆ Number of SBAs to be trained from 2007 to 2012, by training site and year. ◆ Districts served by SBA training sites. ◆ Summary comparison of target number of SBAs to train with planned deployments and training capacity.

6.1 Description of SBA training courses

There are three cadres of service providers that are eligible to become certified SBAs in Nepal: physicians, nurses, and ANMs. In the past, NHTC has offered two IST courses with SBA-related material—the Midwifery Refresher Training course (MRT: for nurses and ANMs) and the Basic Emergency Obstetric Care (BEOC) training course (for nurses and physicians). Service providers who participated in one of these training courses gained some or all of the 27 core SBA skills. Given the variation in the pre-service and in-service training backgrounds of potential SBAs in Nepal, a number of different SBA IST courses have been designed to meet the needs of service providers according to their background. The various SBA IST courses are briefly described in the table below.

Table 8: Description of SBA in-service training programs and eligible participants

Duration of training	Summary of content	Eligible participants
15 days	Review 27 SBA core skills and focus on 6 major skills: MVA, MRP, vacuum delivery, 3 rd stage management, neonatal resuscitation and breech delivery.	<ul style="list-style-type: none"> ◆ Nurse (who took BEOC training) ◆ Medical Officer (who took BEOC training) ◆ MD/GP, MD/Obgyn, Obstetrician, Gynecologist (BEOC training or equivalent)
30 days	Review of 27 SBA core skills with emphasis on topics not covered in MRT.	<ul style="list-style-type: none"> ◆ ANM, Senior ANM (who took MRT) ◆ Nurse (who took MRT)
45 days	Comprehensive coverage of 27 core skills; course moves faster than 60-day course.	<ul style="list-style-type: none"> ◆ Nurse (with additional midwifery training and/or experience working in delivery ward) ◆ Medical Officer (no previous SBA training)
60 days	Comprehensive coverage of 27 core skills.	<ul style="list-style-type: none"> ◆ ANM, Senior ANM (no previous SBA training) ◆ Nurse (no previous SBA training)

Note: Nurse = Staff Nurse, Senior Nurse Sister, Senior Sister

ANMs and Senior ANMs who have not taken the MRT must participate in the full 60-day SBA course while Medical Officers (MOs) who have not taken the BEOC course participate in a 45-day SBA course. Nurses who have neither taken the MRT nor the BEOC course may participate in either the 45-day course (with MOs) or in the 60-day course (with ANMs), depending on their background. Health personnel who have taken the MRT participate in the 30-day SBA course while graduates of the BEOC course and other physicians with advanced qualifications take the 15-day course.

Two additional short-duration SBA-related training programs have been developed for selected senior health personnel¹². The first program is known as the Skills Standardization course and is used to ensure that health providers who work actively in the field of maternal health but are unable to take a full 15-day SBA course due to time constraints have a common knowledge and skill base. The Skills Standardization course is generally 3-4 days in duration; participants are not certified as SBAs upon their completion of the course. The second program is a one-day orientation to the overall effort to develop SBAs in Nepal which is given to hospital staff and administrators and other key stakeholders.

6.2 *Selection of participants for SBA training courses*

The Family Health Division has determined a variety of criteria that guide the selection of participants for SBA training courses. At this initial stage of the effort to produce large numbers of SBAs, priority is given to participants from areas of the country with high MMR, low levels of the Human Development Index (HDI), and remote areas where access to referral facilities is difficult. Preference is given to service providers who work in BEOC/CEOC facilities, referral facilities, and facilities where there is a high number of deliveries and where the facilities directly serve needy communities—especially PHCCs, HPs and SHPs. At the same time, priority is also given to service providers who work in facilities that serve densely populated areas in order to make progress towards meeting the MDG. Of course, all participants in SBA trainings should be working in a maternity department or otherwise be active in the provision of SBA services.

Selection of participants for SBA training courses

The selection of participants is formalized when the FHD sends requests to the NHTC to train individual service providers. The FHD makes some of its requests in order to support government plans to expand the availability of delivery services and bases other requests on applications that it receives from the district level (i.e., District Health Offices). In identifying individuals who need to be trained as SBAs, DHOs give priority to providers who serve in facilities that have the necessary infrastructure to provide facility-based delivery services (or have verifiable plans to obtain it). In general, priority is given to service providers who work in PHCCs and HPs that provide delivery services to rural communities, and thereafter to personnel from hospitals located in the district.

It is the NHTC's responsibility to provide training to the targeted number of service providers as specified in the annual FHD work plan. Based on the request for training specific health providers that is sent by FHD, the NHTC develops a training plan and coordinates with the training sites and DHOs to schedule the training courses.

Development of a team of SBAs in a hospital

When the Medical Superintendent of a hospital plans to train his hospital personnel as SBAs, first priority is generally given to Staff Nurses and ANMs who work in maternity services, with second priority given to Medical Officers and obstetrician/ gynecologists. The eventual goal in district hospitals is to train all appropriate personnel (physicians, nurses and ANMs) as SBAs. In sub-regional and regional hospitals, it is generally sufficient to train 20-25 nurses from the maternity services as SBAs along with approximately ten physicians.

¹² Senior Nurses, Nursing Supervisors, Medical Officers MD/gynecologists, obstetricians, gynecologists, pediatricians and senior hospital administrators.

Which cadres should be trained together?

It is important that participants in a SBA training course be as uniform as possible in terms of professional background, SBA-related training background, and ability. However, it is logistically difficult to limit all trainings to a single cadre (i.e., physician, nurse, or ANM). For this reason, ANMs and nurses with common SBA-related training backgrounds participate together in some SBA training courses. This approach has worked reasonably well although some nurses feel that the pace of the course is too slow when they are trained with ANMs. In the future, NHTC will try to schedule cadre-specific trainings for ANMs, Senior ANMs, nurses and physicians. Nurses have not yet been trained together with physicians although there are plans to experiment with this approach in 2008-09 for two types of trainings: nurses/physicians who have taken the BEOC course (15-day SBA course) and nurses and Medical Officers with no SBA-related training background (45-day SBA course).

Training participants at training sites near to their place of work

A final aspect of policy regarding participant selection is related to the sites where participants will be trained. NHTC arranges for participants to be trained in SBA training sites that are as near as possible to their service posts in order to facilitate post-training follow-up and create networks that improve post-training learning.

6.3 Certification of graduates of SBA training courses

As noted above, there are only three cadres of service providers in Nepal that are eligible to participate in SBA training courses and become SBAs—physicians, nurses and ANMs. A graduate of a SBA training program becomes an officially certified SBA once i) he or she successfully completes the course requirements including the attainment of a minimum score of 85 percent in the mid-course knowledge assessment and ii) demonstrates competency (as determined by the course instructors) in all 27 core SBA skills. A participant who has successfully met these criteria receives a certificate from NHTC that states that he or she has successfully participated in a training of Skilled Birth Attendants.

6.4 Production of SBAs through July 15, 2008

A total of 381 service providers have successfully taken part in a SBA in-service training course and become certified as SBAs through July 15, 2008. The table below describes the numbers of participants from each cadre who have been certified as SBAs and the type and duration of training that they have participated in.

Table 9: Number of SBAs trained through July 15, 2008, by type of course

Cadre	Previous training	SBA training course # of days	Number of SBAs trained
ANM, Sr. ANM	--	60	69
	MRT	30	74
	BEOC	15	1
Sr. Staff Nurse, Staff Nurse, and Sister	--	45 / 60	59
	MRT	30	20
	BEOC	15	73
	varied	4 - 10	10
Pre-service nursing faculty	varied	60	12
Physicians	varied	4 - 10	14
MD/GP, MD/Obgyn, Obstetrician, Gynecologist	varied	30	1
		15	48
Total			381

Note: Training of 4-10 days duration is for preparation of SBA trainers.

6.5 Plan of SBA training courses to be conducted from July 2008 to July 2009

Table 10 presents a list, stratified by training site, of the SBA training programs that are scheduled to be conducted during the Nepal fiscal year (FY) 2065-2066 (i.e., from July 15, 2008 to July 15, 2009). The training schedule for each training site is broken down by type of training (i.e., training duration), the number of each type of training course that is due to be conducted, and the projected number of participants. This schedule reveals that a total of 62 training courses are planned during the current FY and that 750 service providers will be trained as SBAs during these courses.

Table 10: Schedule of SBA training courses between July 15, 2008 and July 15, 2009

#	Name of site	July 2008	–	July 2009
		Tr. type	# trs	# participants
1	Maternity Hospital , Kathmandu	15 day	1	14
		30 day	1	14
		45 day	1	14
		60 day	3	42
2	Koshi Zonal Hospital, Biratnagar	30 day	1	12
		45 day	1	12
		60 day	2	26
3	Bharatpur Hospital, Chitwan	15 day	1	12
		30 day	1	12
		45 day	1	12
		60 day	3	36
4	Seti Zonal Hospital, Dhangadi	30 day	1	12
		60 day	3	36
5	Lumbini Zonal Hospital, Butwal	30 day	2	24
		60 day	2	24
6	Baglung District Hospital, Baglung	30 day	1	12
		60 day	3	36
7	AMDA Hospital, Jhapa	30 day	1	10
		60 day	3	30
8	TU Teaching Hospital, Kathmandu	45 day	4	48
9	Western Regional Hospital, Pokhara	15 day	2	24
		45 day	1	12
		60 day	3	36
10	Midwestern Regional Hospital, Surkhet	30 day	1	12
		60 day	2	24
11	Dang District Hospital, Dang	30 days	1	12
		60 days	3	36
12	Sagarmatha Zonal Hospital, Siraha	30 days	1	12
		60 days	3	36
13	Dhulikhel Hospital	30 days	1	12
		60 days	2	24
14	Bheri Zonal Hospital, Nepalgunj	30 days	1	12
		60 days	2	24
15	Tansen Mission Hospital, Palpa	30 days	1	12
		60 days	2	24
Total			62	750

April 2009

Table 11: Planned number of service providers to be trained as SBAs year-by-year from 2007 through 2012, by training site

#	Name of site	Opening date	Through July 2008		2008 – 2009		2009 – 2010		2010 – 2011		2011 – 2012		Total # trained
			# groups	# trained	# groups	# trained	# groups	# trained	# groups	# trained	# groups	# trained	
1	Maternity Hospital , Kathmandu	2007	9	115	6	84	5	70	5	70	5	70	409
2	Koshi Zonal Hospital, Biratnagar	2007	7	57	4	50	6	72	6	72	6	72	323
3	Bharatpur Hospital, Chitwan	2007	7	62	6	72	6	72	6	72	6	72	350
4	Seti Zonal Hospital, Dhangadi	2007	5	38	4	48	6	72	6	72	6	72	302
5	Lumbini Zonal Hospital, Butwal	2007	2	21	4	48	5	60	5	60	5	60	249
6	Baglung District Hospital, Baglung	2007	4	34	4	48	5	60	5	60	5	60	262
7	AMDA Hospital, Jhapa	2007	2	20	4	40	6	72	6	72	6	72	276
8	TU Teaching Hospital, Kathmandu	2008	1	12	4	48	4	48	4	48	4	48	204
9	Western Regional Hospital, Pokhara	2008	1	12	6	72	6	60	6	60	6	60	264
10	Midwestern Regional Hospital, Surkhet	2008			3	36	4	48	4	48	4	48	180
11	Bheri Zonal Hospital, Nepalgunj	2008			3	36	5	60	5	60	5	60	216
12	Dang District Hospital, Dang	2008			4	48	5	60	5	60	5	60	228
13	Dhulikhel Hospital, Dhulikhel	2008			3	36	5	40	5	40	5	40	156
14	Sagarmatha Zonal Hospital, Siraha	2008			4	48	5	60	5	60	5	60	228
15	Tansen Mission Hospital, Palpa	2009			3	36	3	24	3	24	3	24	108
16	Sub-Regional Hospital, Birgunj	2009					5	60	5	60	5	60	180
17	Mechi Zonal Hospital, Jhapa	2009					3	24	3	24	3	24	72
18	Narayani Zonal Hospital, Hetauda	2009					3	24	3	24	3	24	72
19	Other training sites, to be developed	2009 +					10	114	27	314	31	373	801
20	Other		1 ¹⁵	10									10
	Total		39	381	62	750	97	1100	114	1300	118	1359	4890

Note: 1. “2008 – 2009” = “July 16, 2008 – July 15, 2009”; other years follow the same pattern.

¹⁵ Training of SBA Master Trainers, conducted by NHTC/SSMP.

6.6 *Plans to train SBAs from 2007 to 2012, by training site and year*

Table 11 presents a plan for training the targeted number of SBAs (4,890) by July 2012. This plan is based on several assumptions that include the following:

1. Training sites that are not yet conducting SBA trainings will become operational according to schedule.
2. The number of potential SBAs within the government health services will be increased during the coming years (e.g., through the conversion of 1,000 SHPs into HPs) so that it is equal to or greater than the targeted number of service providers to be trained as SBAs.

Failure to meet one or both of these assumptions will require that the training plan be adjusted accordingly.

Tables 9 and 10 describe the number and type of training courses that have been conducted through July 2008 and that are planned for conduct between July 2008 and July 2009. Table 11 combines this information with projections, stratified by training site, regarding training courses that are planned through July 2012.

Table 12: SBA training sites and the districts they serve

SBA training site	Districts served
Maternity Hospital , Kathmandu	Bhaktapur, Dhokha, Kathmandu, Kavre, Lalitpur, Nuwakot, Ramechhap, Rasuwa, Sindhupalchok
Koshi Zonal Hospital, Biratnagar	Bhojpur, Dhankuta, Dhanusa, Khotang, Morang, Okhaldhunga, Sankhuwasabha, Saptari, Siraha, Solukhumbu, Sunsari, Terhathum, Udayapur, Ilam, Jhapa
Bharatpur Hospital, Chitwan	Bara, Chitwan, Dhading, Gorkha, Makwanpur, Parsa, Rautahat, Sarlahi, Sindhuli, Siraha
Seti Zonal Hospital, Dhangadi	Achham, Baitadi, Bajhang, Bajura, Dadeldhura, Darchula, Doti, Kailali, Kanchanpur
Lumbini Zonal Hospital, Butwal	Arghakhanchi, Gulmi, Kapilvastu, Nawalparasi, Palpa, Pyuthan, Rupandehi
Baglung District Hospital, Baglung	Baglung, Myagdi, Parbat, Syangja
AMDA Hospital, Jhapa	Ilam, Jhapa, Panchthar, Taplejung
Western Regional Hospital, Pokhara	Kaski, Lamjung, Manang, Mustang, Tanahu
Midwestern Regional Hospital, Surkhet	Dailekh, Humla, Jumla, Kalikot, Salyan, Surkhet
Bheri Zonal Hospital, Nepalgunj	Banke, Bardiya, Dolpa, Jajarkot, Mugu, Rolpa
Dang District Hospital, Dang	Dang, Rolpa, Rukum, Pyuthan, Salyan
TU Teaching Hospital, Kathmandu	All districts
Dhulikhel Hospital, Dhulikhel	Rasuwa, Ramechhap, Dhokha, Kavre, Lalitpur, Bhaktapur, Nuwakot, Sindhupalchok
Sagarmatha Zonal Hospital, Siraha	Khotang, Saptari, Dhanusha, Mahottari, Sindhuli, Udayapur, Okhaldhunga
Mahakali Zonal Hospital, Mahendranagar	Baitadi, Bajhang, Bajura, Dadeldhura, Darchula, Kailali, Kanchanpur
Tansen Mission Hospital, Palpa	Gulmi, Parbat, Syangja, Arghakhanchi
Sub-Regional Hospital, Birgunj	Bara, Parsa, Rautahat, Sarlahi
Mechi Zonal Hospital, Jhapa	Jhapa, Ilam, Panchthar, Taplejung
Narayani Zonal Hospital, Hetauda	Bara, Makwanpur

6.7 *Districts served by SBA training sites*

Participants in SBA training courses benefit when they attend courses at sites that are as close as possible to their own health facility. This approach facilitates the development of local networks as well as post-training follow-up and support. The table above lists the districts

that are primarily served by SBA training sites that are currently operational (as of December 2008) as well as those that are due to begin conducting trainings in 2009-2010.

6.8 Comparing need for SBAs to planned deployment and training capacity

By outlining the major plans and assumptions of the SBA training effort, this document has described four key interdependent factors that together will determine how many SBAs need to—and can—be produced by 2012. These factors, presented in the table below, are as follows:

- i. The number of SBAs that the government plans to have actively provide maternal care in 2012 to meet the MDG target for 2015 of 60 percent coverage of births by SBAs.
- ii. The number of service providers that should be trained as SBAs in order to achieve the targeted number of SBAs actively providing maternal care in 2012 (this estimate compensates for anticipated attrition of SBAs).
- iii. The number of potential SBAs for whom posts are projected to exist at government health facilities in 2012 under GoN deployment protocols.
- iv. The number of SBAs that can be produced by NHTC by 2012 under existing plans for in-service training courses.

Table 13: Comparison of target for SBA production with planned deployments and training capacity

#	Factor	# of SBAs
1	Number of SBAs planned to be actively providing maternal care in 2012	4,515
2	Number of service providers that need to be trained as SBAs by 2012	4,890
3	Estimated number of posts for potential SBAs in government facilities in 2012	5,451
4	The number of SBAs that can be produced through in-service training by 2012	4,890+

There are two important comparisons that should be made among the numbers presented in Table 13. The first is between i) the number of SBAs that are planned to be active maternal care providers in 2012 (row # 1 in table) and ii) the estimated number of potential SBAs in the GoN health system in 2012 (row # 3). This comparison shows that the plan to have 4,515 SBAs actively providing services in 2012 may be achievable if the government’s ambitious plans to hire a substantial number of additional ANMs (above and beyond those that exist in 2008) by 2012 is achieved. The estimated number of posts for potential SBAs in government health facilities in 2012 (5,451) is based on two key assumptions: i) that 1,000 SHPs will be converted to HPs by 2012, with the subsequent addition of 1,000 new ANMs to staff the HPs; and, ii) that 1,000 ANMs will be hired on a contractual basis by 2012 in order to provide 24-hour delivery services in selected health posts. Given the increasing number of deliveries that take place in community hospitals, NGO-run hospitals and private health facilities, it will be crucial for appropriate service providers in those facilities to be trained as SBAs if the MDG target is to be achieved by 2012.

The second comparison is between i) the number of service providers that need to be trained as SBAs (row # 2) and ii) the number of SBAs that can be produced through in-service training (row # 4). 28 potential SBA training sites have been identified and, through March 2009, SBA training programs have been established—and SBA training courses have been conducted—in 14 of these sites. If current plans to significantly expand the number of SBA training sites during 2009-2010 are realized, the capacity of NHTC (and the SBA training sites that it has or will establish) may be sufficient to train the target number of SBAs. However, if NHTC does not establish SBA training programs in most or all of the remaining

14 potential SBA training sites presented in Table 2, the NHTC may be unable to train the targeted number of SBAs.

This analysis suggests that there are three crucial areas where NHTC and the MoHP must focus their efforts if the targeted number of SBAs is to be made ready by 2012:

1. Prioritize the timely development of SBA training sites.
2. Ensure that 1,000 SHPs are converted to HPs, that 1,000 ANMs are hired, trained as SBAs and posted to these facilities by 2012, and that 1,000 additional ANMs are hired on a contractual basis by 2012 to provide 24-hour delivery services in health posts.
3. Develop a policy and plan for training service providers from community hospitals, NGO hospitals, and private health facilities as SBAs.

7 Development of enabling environment to support SBA services

The development of a cadre of SBAs in Nepal that provides effective, high-quality services that are utilized by the population is a complex, multi-faceted effort that requires coordinated inputs from a number of partners. This document has focused on one of the most important aspects of this undertaking—the development and implementation of an in-service training program for SBAs. However, a complementary framework of additional inputs must also be put into place within a supportive environment if SBAs are to provide effective services when they return to their work sites following their training. This framework—often referred to as an enabling environment—creates a supportive situation that enables a SBA to perform effectively.

Key aspects of an enabling environment for SBAs in Nepal include the uninterrupted availability of basic supplies and equipment; adequate health facility infrastructure that supports safe deliveries; a job description that gives a SBA the authority to perform his or her work; the provision of professional guidance and supervision to SBAs at their service sites that helps them to improve their skills and provide expanded services; efficient and effective systems of communication and transport for referral to specialized service facilities and providers; secure accommodations for overnight stays at the health facility for service providers; and, support and security from the community.

Priority in selection for SBA training is currently given to participants who work in facilities where many elements of an enabling environment already exist—that is, where significant numbers of deliveries are performed, where supplies and equipment are appropriate and adequate, and where the infrastructure of the health facilities is sufficient to support safe deliveries. There are currently no deliveries performed in many PHCCs and HPs due to the lack of an enabling environment. If SBA training is provided to a health provider from a facility where a basic enabling environment is not present, the SBA and her supervisor need to work together with the Health Facility Management Committee and senior staff at the health facility to create an enabling environment.

The Logistics and Management Information System (LMIS) has the potential to play an important role in supporting the effectiveness of SBAs by tracking the availability of SBA-related supplies and equipment in SBA service sites and ensuring that trained SBAs have adequate logistical support.

An effective, sustainable follow-up system that provides professional support to SBAs at their work sites is a fundamental aspect of an enabling environment. The FHD and NHTC are currently working with partner organizations to develop a model for a sustainable follow-up system. Public Health Nurses (PHNs) who are posted at District Health Offices will provide some supervision and monitoring of SBAs at community-level facilities, as it is not realistic to plan to have highly-skilled SBA trainers visit community-level SBA service sites on a regular basis to provide support to all SBAs. The FHD has begun to conduct SBA orientation workshops for PHNs and SBA Regional Coordinators so that they will be able to provide appropriate supervision to SBA service sites. While most PHNs will not possess the technical ability to provide SBA services themselves or assess the clinical skills of SBAs, they should be able to evaluate the SBA-related performance of health facilities, assure that appropriate records are kept, and assess the appropriateness of the environment in health facilities to support the performance of SBAs. PHNs can then coordinate as necessary with Health Facility Management Committees (HFMCs) or District Health Offices for necessary action to strengthen SBA service sites as required.

Other individuals and personnel who are crucial to the development of a positive enabling environment for SBAs include health facility in-charges and community leaders such as members of the HFMC. Health facility in-charges need to be oriented regarding the expanded services that SBAs can provide and their own role in supporting SBAs. HFMCs can play an important role in strengthening the planning of services at the SBA service site and increasing demand for SBA-related services among community members.

The SBA in-service training system is also linked to the development of an enabling environment, primarily through the system for support and supervision following SBA training courses that was discussed above. Participants in SBA in-service training courses develop a participant action plan during their in-service training course. This action plan prepares them to return and work effectively at their work sites and also serves as a tool to be used during follow-up supervision.

April 2009

8 Annex 1

Table 14: Number of allocated positions for potential SBAs in government hospitals and district health offices in Nepal

#	Post	Central Hospitals	Western Regional Hospital, Pokhara	Midwestern Regional Hospital, Surkhet	Sub Regional Hospital	Zonal Hospital Bheri, Lamjung, Janakpur, Bharatpur	Zonal Hospital Mechi, Sagarmatha, Seti, Mahakali, Bhaktapur	District Hospital: A Level	District Hospital: B Level	District Hospital: C Level	District Hospital: D Level	Total
1	# of facilities	3	1	1	1	4	5	11	15	32	5	78
	Physicians											
2	Medical Superintendent	3	1	1	1	4	5	11	15	32	5	78
3	Gyn/Ob	35	2	2	2	8	5	0	0	0	5	59
4	Sr. Medical Officer	0	1	1	1	4	0	0	0	0	0	7
5	Medical Officer	40	22	22	22	40	30	11	15	64	15	281
	Nurses											
6	Senior Sister	6	2	2	2	4	5	0	0	0	5	26
7	Staff Nurse / Sister	162	73	73	73	108	100	22	45	128	5	789
	ANMs											
8	ANM	20	1	1	1	12	20	22	22	64	15	178

Central Hospitals: MH, TUTH & Patan Hospital	Regional and Sub-Regional Hospitals	Zonal Hospitals	District Hospitals
1. Medical Superintendent	1. Medical Superintendent	1. Medical Superintendent	1. Medical Superintendent
2. Gynecologist/Obstetrician	2. Gynecologist/Obstetrician	2. Gynecologist/Obstetrician	2. Medical Officer
3. Medical Officer	3. Senior Medical Officer	3. Senior Medical Officer	3. Staff Nurse
4. Senior Sister	4. Medical Officer	4. Medical Officer	4. ANM
5. Staff Nurse	5. Senior Sister	5. Senior Sister	
6. ANM	6. Staff Nurse	6. Staff Nurse	
	7. Sister	7. Sister	
	8. ANM	8. ANM	