

# **Use of skilled birth attendants in Nepal**

**A study of influencing factors, structural barriers and government  
strategies and interventions**

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## **Dedication**

To my lovely son, Felix Hav, for joining the family and bringing more happiness to my heart, than I ever could imagine.

## **Abstract**

Most maternal deaths in South-Asia are due to haemorrhage and hypertension. These causes are considered avoidable. Having a skilled birth attendant (SBA) assisting the delivery is most likely a key to reducing morbidity and mortality if complications occur.

The objectives of this study are first to present a past and present delivery care situation in Nepal. Second, the study aims to identify and study factors and structural barriers that either facilitate or impede the use of SBA, before exploring strategies and interventions implemented by the government of Nepal, in order to increase use of SBA.

Pluralistic approaches, with elements from traditional medical geography, feminist research and contemporary geographies of health are used in this thesis.

The fieldwork for this study was twofold. The first phase was a three-month long research internship at the World Health Organization's Department for Reproductive Health and Research in Geneva. In the beginning of this period, quantitative statistical comparisons and analyses were conducted to determine a research country. When Nepal was chosen, the desk study continued with a literature study and a document analysis. The second phase of the fieldwork was carried out in a three-week long stay in Central and Western Nepal. Ethical research approval was granted from the Nepal Health Research Council. Altogether six semi-structured interviews were conducted, together with five informal interviews and an observational study.

This study argues that urbanity, education, income, low parity, young age and use of antenatal check-ups are factors that contribute to use of SBA. On the contrary, lack of awareness of sources of care, rurality (remoteness), large geographical distances, significant other family members, low autonomy and decision-making power are factors that impede use of SBA. Structural barriers that hinder increased use of SBA are financial barriers and lack of awareness of the financial incentives, time barriers, especially related to travelling time and infrastructure, in addition to organizational barriers related to the shortage of SBAs in rural areas. The most important strategies and interventions implemented by the government in order to increase use of SBA are the National Safe Motherhood Program 2002-2017, the financial incentives program (Aama Surakshya Karyakram), the National policy on SBAs and the in-services training strategy.



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## Acronyms

<i>Aama</i>	Nepali for mother
AHW	Auxiliary Health Worker
ANC	Antenatal check-up
ANM	Auxiliary Nurse Midwife
BEOC	Basic Emergency Obstetric care
CEOC	Comprehensive Emergency Obstetric care
CBS	Central Bureau of Statistics
CR	Central development region
NDHS	Demographic health survey
<i>Didi / Bahini</i>	Older / Younger sister, but also friendly term used to refer to other women roughly in your generation
FCHW	Family children health worker
FHD	Family health division
GDP	Gross domestic product
GFR	Gross fertility rate
GII	Gender inequality index
GNI	Gross national income
GoN	Government of Nepal
HA	Health assistant
HDI	Human development index
HR	Human resources
HP	Health post
LCD	Least developed countries
MCHW	Maternity Child Health Worker
MDG	Millennium development goals
MDGP	Medical doctor general practitioner
MICS	Multiple Indicator Cluster Survey
MMR	Maternal mortality ratio
MoH	Ministry of health
MWR	Midwestern development region
NGO	Non-governmental organisation
NHRC	Nepal health research council
NSMP	National safe motherhood plan
PPP	Purchasing power parity
SAHW	Senior Auxiliary Health Worker
SBA	Skilled birth attendant / attendance
SHP	Sub health post
SLC	School leaving certificate
TBA	Traditional birth attendance
<i>Terai</i>	Flat ecological zone bordering India
VDC	Village development committees
VHW	Village Health Worker
WHO	World Health Organization



# 1 Introduction

Giving birth to a child is not only a strain for the body, but it also puts the woman's health at risk. On a global basis, it is estimated that 287000 maternal deaths occurred in 2010 (WHO 2012b); 99% of these happen in the global south, and 75% of these are considered avoidable (Karlsen et al. 2011). Deliveries with skilled birth attendants (SBA) i.e. with a medical doctor, nurse or midwife, can reduce the risk of mortality and morbidity of women in labour (WHO 2012b). Complications during pregnancy and childbirth are the leading causes of death for young women ages 15 to 19 years old in poorer countries (WHO 2009). Only one third of women in need of lifesaving care following complications during labour receive the help they need, and the remaining two thirds die mainly from haemorrhage, hypertensive disorders (Khan et al. 2006), obstructed labour and infections (Karlsen et al. 2011).

In general, there are different reasons why women deliver their babies at home without an SBA. Women in urban areas are more likely to give birth with skilled personnel attending than women living in rural areas (UNICEF 2012). The same applies to income inequalities; skilled personnel attend only 25% of the deliveries in the poorest 20% of countries in the global south. Other personal factors and structural barriers apply as well.

The fifth Millennium Development Goal (MDG5) on improving maternal health includes two particular targets where the use of SBA is of special importance:

1. Reduce by three quarters the maternal mortality ratio (MMR)
2. Achieve universal access to reproductive health

Maternal deaths leave children without a mother, husbands without wives, and communities without female resources. Complications and morbidity may have major consequences for living situations and quality of life.

Nepal is one of 11 countries that have achieved the fifth MDG with their reduction of maternal mortality by 78% since 1990 (WHO 2012a). One of the key factors in this progress is likely to be the increased proportion of deliveries attended by skilled birth attendants (Ahmed et al. 2010).

This thesis uses mainly qualitative methods, however a quantitative overview when exploring statistical trends in the use of SBA is included. The qualitative methods are used when

exploring variables that affect the use of SBA, and the strategies and interventions implemented to increase use of SBA.

The data gathering of this thesis draws on a three-month internship / desk study at the World Health Organization (WHO) in Geneva during the summer of 2012, and a subsequent three-week field study in Western and Central Nepal. The desk study at the WHO allowed for further study of delivery care, a document analysis of the government-initiated strategies and interventions implemented to increase the use of SBA in Nepal, and a study of structural barriers and factors affecting the use of SBA in Nepal. The field-study in Nepal focused on the health provider / health care side and the supply of SBA. The interviews conducted in Nepal illustrated the SBAs' point of view, on how to meet with the factors and barriers and increase the use of their services. Six semi-structured interviews with primary and key informants were conducted, both in rural and urban areas. An observational study took place along the way, and five informal interviews were held with women of reproductive age during the time in the field.

## 1.1 Personal justifications

Personally, I find the topic extremely important. As a woman from Norway where the use of SBA is close to 100% and is as natural as giving birth itself, the differences are huge when comparing it to a large part of the global south.

In 2008, I spent two months working in Haydom Hospital in rural Tanzania. I was drawn toward the women and children initiatives – all free of charge and very popular. The hospital had ambulances and outreach for women in labour, and I saw first-hand the important link between the antenatal check-ups (ANC) and safe deliveries at the hospital. The chance of a woman wanting to give birth at the hospital was related to the number of ANCs she had attended. Nevertheless, I also met families that had lost their beloved ones in labour. Perhaps these women did not reach the hospital before the birth started, or they decided to give birth at home without an SBA due to bad previous experiences. The reasons were many, but the cause of death was often the same: haemorrhage or infection. I remember thinking of the great unfairness when the families I met all of a sudden lost such an important person – the mother.

When I later had the opportunity to complete a research internship in the Department of Reproductive Health and Research at the WHO, my decision to research strategies to increase the use of SBA in low-income countries as the topic of my masters was final.



At the beginning of the research internship, I particularly wanted to look into areas with significant changes in the use of SBA over time. If there were signs of a positive development, it would be expedient to figure out what happened in that period - what kinds of incentives were applied and how numbers improved. I choose to research Nepal precisely because of the interesting trend in both maternal deaths and the use of SBA. I believe it is important to look into variations between groups in society and the spatial patterning of service provision and recognize the fact that access to health care facilities is far more challenging in rural than it is in urban areas.

For me, the tradition of home delivery without skilled care is not regarded as an inferior way of giving birth. I accept the fact that this has been the standard and norm for centuries and that many prefer to hold on to this tradition. However, I believe every woman deserves the help they both need and want should complications occur, and resources are available. The value of the mother cannot be underestimated.

This study presents pluralistic perspectives from various theories within health geography, with elements from both traditional (positivistic) medical geography and (modern) geographies of health with humanistic and structural approaches. These elements are viewed within the MDGs' over-arching framework.

*“While some targets have already been met, (...) the percentage of births attended by a skilled birth attendant and universal access to reproductive health, and environment will be difficult to meet”* (UNDP 2012a).

Important aspects in this context will be the right to health, feminist research, women's autonomy, other enabling and predisposing factors, need and structural barriers in low-income countries.

The area is of great importance for women all over the world and deserves dedicated work and attention. The aim of this thesis is not to point fingers but to contribute to the field of academic research in the area of reproductive health.

## 1.2 Objectives and research questions

The main objective of this study is to investigate use of SBA in Nepal. I will look at Nepal's progress and the initiatives that have led to these improved outcomes following the adoption of MDG5. This study's general are:

1. Present an overview of the past and present delivery care situation and trends in Nepal by comparing statistics from WHO approved sources
2. Identify and study the influential factors and structural barriers to the use of SBA services in Nepal through a literature study and interviews with key-persons, SBAs and women of reproductive age in Nepal.
3. Identify and study the most important SBA strategies and interventions conducted by the Nepalese government, through a document analysis and a literature study.

Furthermore, the study aims to present important policies and programs implemented by the government in order to increase the utilization of SBA during delivery in Nepal. When exploring a topic like this it is natural to examine factors that have contributed to the positive trend, and barriers that hinder progression towards the governmental target of 60% coverage in skilled attendance at birth in 2015.

The research question, regarding objective 2, therefore reads:

2a) What are the major influencing factors and structural barriers for use of SBA in Nepal?

The research question regarding objective 3 reads:

3a) What are the most important SBA strategies and interventions implemented from the government side in order to meet the goal of 60% coverage in 2015?

## 1.3 Organization of the thesis

This thesis is organized into eight chapters, where the aim is to gain insight into the use of SBA in Nepal, the variables that influence this use, and the most important strategies and interventions implemented to increase the use of SBA.

Chapter 2: *Key concepts and theoretical approaches*, defines the essential concepts used in this thesis, before exploring the overarching theoretical approach and perspectives to understand

the use or non-use of the services. A model to explain the use of SBA is presented in the last part of the chapter.

Chapter 3: *Methods*, shows the research methodology for this thesis. The different methods and techniques used throughout the different stages of the knowledge gathering are presented, in addition to a subchapter on analysis of the data, ethical considerations and limitations.

Chapter 4: *Study area*, is a presentation of Nepal, health issues in the country and a comparison of neighbouring countries. A presentation of the smaller geographic entities studied in this thesis follows.

Chapter 5: *Trends in the use of skilled birth attendants in Nepal, 1996-2011*, explores SBA use on a national level, between the urban / rural women, between developing and ecological regions, between educational level and wealth quintile. This chapter is based upon the quantitative study from the WHO in Geneva.

Chapter 6: *Variables influencing the use or non-use of skilled birth attendants in Nepal*, explores the influencing predisposing and enabling factors, together with need and hindering structural barriers. This chapter is based upon the literature study conducted at the WHO in Geneva, and in the interviews and observations in Nepal.

Chapter 7: *Strategies and interventions to increase use of skilled birth attendants in Nepal*, explores the chronological actions taken from the government side in order to increase use of SBA from its level in the 1990s. This chapter is based upon the qualitative document analysis conducted at the WHO in Geneva.

Chapter 8: *Final discussion and concluding remarks*, aims to get a deeper understanding of the use of SBA in Nepal, both from a theoretical and an empirical perspective. This chapters discusses the findings from chapter 5, 6 and 7, and ends with a conclusion where the research questions are finally answered.

## 2 Key concepts and theoretical approaches

### 2.1 Introduction

Theory is essential in all research, and as Silvermann argues, “*without theory, there is nothing to research*” (Kitchin & Tate 2000:33). Theory is a systematic way of understanding a phenomena or situation in qualitative research, and “*give[s] researchers different “lenses” through which to look at complicated problems and social issues, focusing their attention on different aspects of the data and providing a framework within which to conduct their analysis*” (Reeves et al. 2008:631).

This chapter will first present the key concepts used in the thesis, aiming to give a brief understanding of what the term “skilled birth attendant / attendance” mean, and how it is understood in this thesis. This is followed by a brief explanation of maternal deaths and the statistical term *maternal mortality ratio*.

Pluralistic approaches are used in this thesis, with perspectives both on a structural-level and from an actor perspective. I combine elements from positivistic medical geography with humanistic, non-positivistic perspectives from geographies of health and use both quantitative and qualitative sources.

This chapter gives a presentation of the positioning, theories and models used in this study. I will present a theory explaining the distribution of the “western concept” of skilled birth attendance. Finally, an appropriate model is discussed to understand the utilization of SBA services in the global south.

### 2.2 Key concepts

#### 2.2.1 Skilled birth attendant / attendance

SBA is an acronym for “skilled birth attendant(s)”, “skilled birth attendance” or “skilled attendance (at birth)”. “*The lack of a clear definition has been, and continues to be, the cause of much confusion over the role, and thus the potential, of skilled attendants*” (Graham & Bell 2001:97).

In this thesis, the WHO’s definition is used when speaking of attendants. WHO (2004:1) defines a skilled birth attendant as “*an accredited health professional – such as a midwife, doctor or nurse – who has been educated and trained to proficiency in the skills needed to manage normal*

*(uncomplicated) pregnancies, childbirth and the immediate postnatal period, and in the identification, management and referral of complications in women and new-borns'.*”

Safe Motherhood Inter-Agency Group, SMIAG, (2000) defines skilled attendance as *“the process by which a woman is provided with adequate care during labour, delivery and the early postpartum period”* (in Graham & Bell 2000:4). This definition emphasizes that the process requires both an SBA and *“an enabling environment which includes adequate supplies, equipment and infrastructure as well as efficient and effective systems of communication and referral”*. Graham and Bell (2000) point at the environment, which includes the political and policy context, socio-cultural influences and proximate factors. Skilled care is another term used in this thesis, which refers to *“the care provided to a woman and her new-born during pregnancy, childbirth and immediately after birth by an accredited and competent health care provider who has at her/ his disposal the necessary equipment and the support of a functioning health system, including transport and referral facilities for emergency obstetric care”* (WHO 2004:1).

In the global south, home deliveries with friends, relatives or traditional midwives (TBA) are normal. A TBA is normally an older woman, defined as *“a person who assists the mother during childbirth and who initially acquired her skills by delivering babies herself or through an apprenticeship to other TBAs”* (WHO 1992).

A detailed definition of minimum and additional skills required to be a skilled attendant is in appendix A. The Nepalese government in collaboration with United Nations Population Fund developed this definition.

### 2.2.2 Maternal mortality

WHO defines maternal death in International Classification of Diseases as *“the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and the site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes”* (WHO 2010:156).

The postpartum period starts only an hour after delivery and is very critical because the majority of maternal deaths and disabilities occur during this period (WHO 1998). The care during this period seeks to help the women with their special needs, with focus on preventing complications and disease, in addition to the provision of adequate advice for breastfeeding etc. (WHO 1998).

The maternal mortality ratio (MMR) is “*the ratio of the number of maternal deaths during a given time period per 100,000 live births during the same time-period*” (MME Info 2012).

Maternal death can be subdivided into two groups: direct and indirect obstetric deaths, where the first group are the deaths “*resulting from obstetric complications of the pregnant state (pregnancy, labour and puerperium), from interventions, omissions, incorrect treatment or from a chain of events resulting from any of the above*” (WHO 2010:156). The indirect causes are those resulting from an earlier disease or a disease developed during pregnancy aggravated by physiologic effects of pregnancy (WHO 2010).

It may be difficult to identify maternal deaths, as the deaths of women of reproductive age may not be recorded at all, especially in cases where women suffer from indirect obstetric causes or where medical certification of cause of death is missing (WHO 2012a). The pregnancy status or cause of death may not be known, and therefore these deaths are not reported as maternal. There may also be deaths related to obstetric cases that occur after 42 days, and these deaths are not included in the calculation of the maternal mortality ratio (MMR). “*In countries with incomplete civil registration systems, it is difficult to measure accurately the levels of maternal mortality*” (WHO 2012a:7). To measure and estimate MMR, the Maternal Mortality Inter-Agency Group (MMEIG), consisting of resources from WHO, UNPD, World Bank and Berkeley University in California, has developed a multilevel regression model based on data from a variety of sources, including censuses, household surveys, reproductive-age mortality studies and verbal autopsies (WHO 2012a). SBA, as a proportion of total births, is used as one of three covariates. The others are gross domestic product (GDP) per capita as measured in purchasing power parity (PPP) and live births expressed by gross fertility rate (GFR).

A complimentary discussion of MMR and reporting of maternal deaths in Nepal are included in chapter 4, study area.

### 2.2.3 Antenatal care

Antenatal care (ANC) is a medical examination during pregnancy but before birth. WHO (2012b) points out that this service (sometimes referred to as prenatal care) includes recording of medical history, evaluation of individual needs, advice and guidance on pregnancy and delivery, screening tests, education on self-care during pregnancy, identification of conditions detrimental to health during pregnancy, and first-line management and referral if necessary.

This health-seeking behaviour is further addressed under the model of health service use, in 2.4.

### 2.3 Theoretical approach – epistemological positivistic versus non-positivistic approach

This thesis builds upon the view that increased use of competent delivery care and a higher percentage of SBA during delivery saves more maternal lives and reduces the MMR. Thus, positivistic perspectives are relevant. Traditional medical geography relies on the strong assumption about the truth / correctness while adopting a “hard scientific” approach and applying quantitative methods.

The development trend in a world context—especially the change from the traditional home delivery with TBA or others and towards an institutional delivery with SBA—is very much a classic modernisation feature. The maternal mortality ratio is declining, and this phenomenon prevails in all cultures worldwide, with some exceptions. 14 countries have made “insufficient progress” towards reducing the maternal mortality ratio while 11 countries have made “no progress” at all (WHO 2012a). This again relates to diffusion processes and globalization theory, with the urbanization phenomena and the growth of the middle class in poorer countries. Institutional delivery may be the safest overall option, however, under the right circumstances, and with good referral and ambulance systems, it is fully possible to give birth at home. Some may feel more comfortable and relaxed at home, and the birthing experience may turn out better than in a hospital.

Non-positivistic perspectives can be viewed as a critique of mainstream development, a set of alternative proposals, or according to Nederveen Pieterse (2009:84) a paradigm indicating “*a definite theoretical break with mainstream development*”. Alternative development is bottom-up focused and people-oriented. Women, gender and empowerment are key words of the development approach, and the role of the state works out to be more of an enabler, “*a facilitator of the peoples’ self-development*” (Nederveen Pieterse 2009:94). The epistemology of this grand theory is centred on the indicators of the former theories; when development is no longer about economic growth but about institutional change, poor people can be empowered and more prosperous. Economic capital is replaced by social, cultural, symbolic and moral capital.

In the following parts I will explore traditional versus contemporary medical geography and the strands belonging to each discipline. This thesis argues for the use of both, as “*the strands are often complimentary rather than competing*” (Curtis & Taket 1996:4).

### 2.3.1 Traditional medical geography

Medical geography is defined as “*the application of perspectives and methods to the study of health disease and health care*” (Johnston et al. 1994:374, in Curtis & Taket 1996:2). According to Curtis & Taket (1996), this definition contains two components: one that encompasses the study of spatial variations within health and disease and the other that comprises the study of health care. The first component focuses on environmental and socio-cultural factors that relate to disease or mortality, linked to environmentalism in mainstream geography. The second strand concerns activities and services related to treatment, disease prevention and health promotion, and draws on behaviourism (Curtis & Taket 1996).

The two strands read:

- Strand 1: Spatial patterning of disease and death
- Strand 2: Spatial patterning of service provision

Exploring the use of a health care service is an example of the use of medical geography. When exploring a topic like delivery care, strand 2 is of special importance. In this strand, spatial patterning of service provision, also called “*geographies of health care*”, there are three main components (Curtis & Taket 1996:10):

1. *Structure organisation and spatial patterning of health service facilities*, like hospitals, clinics and doctors’ surgeries – national to local level
2. *Patterns of inequality in supply and use of services*
3. *Patient utilization of health services* and factors influencing the behaviour of the individual in their contact (or non-contact) with organized health services, such as needs, demands and access

Curtis and Taket point out that in a positivistic fashion, “*the nature of health and ill health are regarded as unproblematic*” (1996:11), and the major themes relate to “*the twin issues of*



*accessibility and service use, with much attention given to deriving suitable quantitative measures of accessibility. Such measures are varying degrees of complexity, but usually involve making highly simplistic assumptions about the behaviour of patients or potential patients”* (1996:11). The authors also warn against a conception of accessibility constructed by the researcher rather than from a patient's point of view. The accessibility term is further elaborated in section 2.4.

A critique to strand 2, *the spatial pattern of service provision*, calls special attention to the optimal location of a health facility. This approach requires everybody (all potential patients) to be rational actors, with a form of rational economic behaviour including utility maximization. It does not take into account the other types of rationality that can occur and does not consider why some women prefer to give birth at home with friends, relatives or a TBA. Other types of rationality can be satisfying rationality or maintaining roles and traditions within the family or society as a type of rationality, in addition to satisfying *significant others* (see 2.4.2, enabling factors).

An important consideration, while reflecting on these strands, is the distinction between being diseased and being pregnant. Being pregnant is not a disease, nor is giving birth. There is reason to believe that the behaviour of a pregnant woman would differ from a diseased person, and this may not be encompassed in the traditional approaches.

The positivistic approach used in this thesis contributes as a relevant and useful basis for tables and graphics that show main features of differences, trends and patterns. However, there are many factors that are unable to be quantified, hence the emphasis on other non-positivistic features as well.

### 2.3.2 Contemporary medical geography

There has been a shift from “medical” geography towards “geography of health and health care” (Curtis & Taket 1996). This shift represents a critical view of the biomedical and positivistic health model. It is necessary to investigate the economic structures of society while investigating the structures of health care provided - for example, examining differences between structures in rural and urban areas. The shift represents a search for the underlying explanation or understanding, which is not the focus of any positivistic approach. The positivistic approach and the conceptualization of people as rational actors was criticized in social sciences, and geographers adopted a humanistic approach arguing that human behaviour is subjective, complex, messy, irrational and contradictory (Clifford et al. 2010).

Geographies of health contain different philosophical approaches and thus different explanations of the similar points of interests (Gatrell & Elliot 2009), i.e. the spreading of a disease can be described statistically or “*explained in the terms of the impact of colonial structures*” (Gatrell & Elliot 2009:47). Curtis and Taket argue that the concepts of health and illness are “*socially constructed and contested, illustrating the tremendous range of different professionals and lay concepts, together with their dynamic and contingent nature. Such concepts cannot be regarded as neutral; they are intimately linked to social relations and power structures*” (1996:43). They also emphasize the differences in perception of health over time and in space, between generations and between communities around the world.

All individuals have different perceptions of the importance of a health care service. People can live next door to a hospital and the services may be free of charge, however people will not use the facility, for one reason or another. Different factors related to characteristics of the individual, the socio-economic setting, accessibility and the supply and provision system might all play a role. These factors play a role one by one, and they affect each other. In chapter 6, I further elaborate on variables affecting the use or non-use of professional maternal health care services in Nepal.

### ***Social interactionist / Humanistic turn***

Curtis and Taket’s third strand, the humanistic turn, can be useful in this study, allowing for a greater understanding of a phenomenon by explaining rather than describing. In this strand, individual decision-making, health-related behaviour and the underlying motivations are emphasized. Factors related to belief-systems and cultures of health that affect the process of seeking care are of great importance. Research within this strand uses more qualitative approaches and is carried out at the individual or small group level (Curtis & Taket 1996). Related to pregnancy and deliveries, the perception of one’s health status, use of health services both before and during birth, attitudes to health and views on health services are important factors. Ethnographic approaches are often used in order to focus a qualitative understanding of explanations. When conducting and analysing interviews, the researcher will obtain explanations and stories from the lives of the informants. Such logical consistency does not necessarily reflect the truth but more importantly, how people perceive and act in the world (Curtis & Taket 1996).

### 2.3.3 Structurationist approaches

Structurationist approaches is the middle ground between positivism and alternative approaches (Gatrell & Elliot 2009). In social sciences, the structure / agency debate has been central for years. Agency is the capacity a human being, or an agent, has to make free choices, and structure refers to the arrangements that influence or limit the agent's choice. The question is to what extent do social structures determine the individual's behaviour, or does human agency play the main role.

This alternative approach to positivism is identified with Anthony Giddens and his development of the theory of structuration (1984) – an analysis of agency and structure. Structurationism recognizes the duality of structure and agency, and acknowledges “*that structures shape social practises and actions, but that, in turn, such practices and conditions can create and recreate social structures*” (Gatrell & Elliot 2009:40). In other words, human agency and social structure relate to each other, and the act of every individual produces the structure of society. Again, individual acts are influenced of the societal structures: by traditions, norms, institutions, moral codes and the commonly accepted way of doing things. The social structure will therefor change when people start to ignore traditions or do things differently (Giddens 1984). Related to health and service use, social structures affect our motivations and behaviour. Social structures within families may constrain women from health care use due to power-relations and decision-making. Economic structures may prevent health seeking behaviour, and knowledge plays a crucial role.

### 2.3.4 Feminist research perspective

Given the topic of delivery care, births and women, it is relevant to include a feministic approach. This thesis is all about women: their reasons, choices and preferences, if any, to give birth with or without skilled attendance. To understand society, feminist approaches argues that the historical relationship between men and women are basic, and that men is the dominant group when it comes to the unequal division of power (Gatrell & Elliot 2009).

Working with the WHO as a research platform and with the overall MDG framework and medical geography perspective, feministic perspectives balance the approach. These approaches to geography present qualitative methods to emphasize people's voices in a non-exploitative or oppressing way (Moss 2001), and focus patriarchal - and power relations. When the researcher is

not familiar with the research area, system or society, one needs to be careful when defining “right” and “wrong”. *“The politics of knowledge production, particularly in terms of the positionality of the researcher and the way “other” people and places are represented”* (Clifford et al. 2010:5) are focussed on in feminist research. Carol Grbich argues for the diversity of interpretation of the term “feminist research” but points at some important principles attached to this approach (1999:53):

- *A need to centre the social constructedness of gender*
- *An acceptance that women are oppressed, although views of their response to this oppression vary from total powerlessness to active verbal and other forms of interactive negotiation*
- *A non-exploitative, hopefully egalitarian and emancipatory relationship between researcher and researched*
- *An exposure of the researcher’s position, emotions and values, how these can affect her view of reality, and how this reality is managed in terms of the analysis and interpretation of the realities of the researched*
- *A presentation of research results that addresses issues of power, honesty and ownership*

Carrying out feminist research involves certain perspectives not always easily achieved. The power relations between researcher and researched, or rather the avoidance of such an exploitative relationship, is important. Nevertheless, other exploitative relationships can be hard to avoid due to the emphasis on equality, the “insider view” and friendship with participants. The aim is to equalise relationships and minimise differences without misrepresenting the research position (Grbich 1999). Empowerment is another key concept in feminist research, but according to Grbich the term is similar to “consciousness raising” and it therefor *“impl(ies) that individuals or groups operate at a lower level than a researcher, who takes it upon him/herself to liberate them”* (1999:54). Another debate within feminist research regards the knowledge created. The sharing of knowledge in the research process can be hard to achieve, because the researcher is most likely a woman from the western middle class, and the knowledge created may not be beneficial / useful for others where values are dramatically different (Reinhard 1993 in Grbich 1999).

### 2.3.5 Diffusion of innovation theory

In the global south, giving birth with an SBA (i.e. at a health care facility) could be perceived as a foreign or western phenomenon. Women have traditionally delivered babies at home, the majority with friends, family, TBA or even alone. For many women and families, this is the lived reality. This is a structural inequality between the global south and north.

In a wide spectre of literature, mainstream top-down development presupposes the rationalistic advancements. When choices are available and free of charge, who would not choose the safest option? Nevertheless, sometimes choices are available, but not everyone is yet aware of them.

To help illuminate the problem, Everett Rogers' (1995) diffusion of innovation can be of relevance. In this context, the diffusion will result in new health seeking behaviour by pregnant women. According to Rogers, diffusion takes place when: *“The process of innovation is communicated through certain channels over time among the members of a social system. An Innovation is an idea, practice or object perceived as new by an individual or other unit of adoption. The diffusion of innovations involves both mass media and interpersonal communication channels”* (1995:409). Roger points out that the members of a social system go through a 5-step process (1995:162):

4. *Knowledge – person becomes aware of an innovation and has some idea of how it functions,*
5. *Persuasion – person forms a favourable or unfavourable attitude towards the innovation,*
6. *Decision – person engages in activities that lead to a choice to adopt or reject the innovation,*
7. *Implementation – person puts an innovation into use,*
8. *Confirmation – person evaluates the results of an innovation-decision already made.*

The process of “implementing” SBAs in the global south is progressing. We do not know if all women and their families in particular areas are yet aware of the benefits and perhaps the existence of the services because they may be located in an early stage of the diffusion of innovation theory regarding this particular topic. However, other factors may affect diffusion, regardless of the rationality.

## 2.4 Use of health services

When approaching use of health services, a combination of positivistic and non-positivistic elements is often used. Phillips (1990) argues that many studies have identified factors influencing utilization and health seeking behaviour, but there is still an imperfect understanding of how services are used, or not used. Phillips points out a number of discrete but often interrelated variables that appears to influence health care utilization. They are service-related characteristics: type, size, location, costs and quality, community-wide characteristics, such as transport or the availability of financial support, while others may be personal or family-related: age, sex, income, social status, family size, mobility and religion.

Health seeking behaviour may turn out differently for a person with cancer than for a pregnant woman. To deliver a child is, as mentioned, not a disease. Many variables count, and variables can even have different importance and meanings in different areas or countries.

In the general literature review conducted before the desk study at the WHO, I found that especially transport and financial incentives are crucial for health seeking behaviour of a pregnant woman. Other studies focused on the role of the women within their families and their decision-making. In most models we find classic variables of major influences: economic, sociodemographic, geographical, sociocultural and organizational or delivery system. Phillips argues “*it should be recognized that utilization is the outcome of many complex interactions among many variables and factors, visible and hidden, which act at different stages*” (1990:194). He notes that factors are emphasized differently from one academic discipline to another. While the *sociocultural* approaches emphasize factors such as family structure, religion, economic status and health beliefs, *sociodemographic* approaches emphasize population characteristics such as age, education, ethnicity and health status. *Social-psychological* approaches deal with knowledge, beliefs, and attitudes to disease and health care, while *organizational* and *social system* approaches focus on the structure of health care, with its various components and interrelationships (Meade & Earickson 2000).

Aday and Anderson (1974) introduced a well-known and classical approach, which seeks to explain variations in use of health services. It classifies determinants of health care use into *predisposing* characteristics, including demographic and other variables that predispose one to use

health services, *need* – variables including self-reported indicators of health status, and finally resources that are required to obtain care – *enabling* variables (Meade & Earickson 2000). Duttons’ (1986) alterations of the Aday and Anderson model points at the use of health services being a result of patient characteristics as well as provider and system characteristics. Here, the overall effect of a national policy is not individually considered. “*The distinction between discretionary (self-determined) and physician-controlled utilization may be valuable when preventive or promotive services are being introduced, and the model may help to assess their impact*” (Phillips 1990:185).

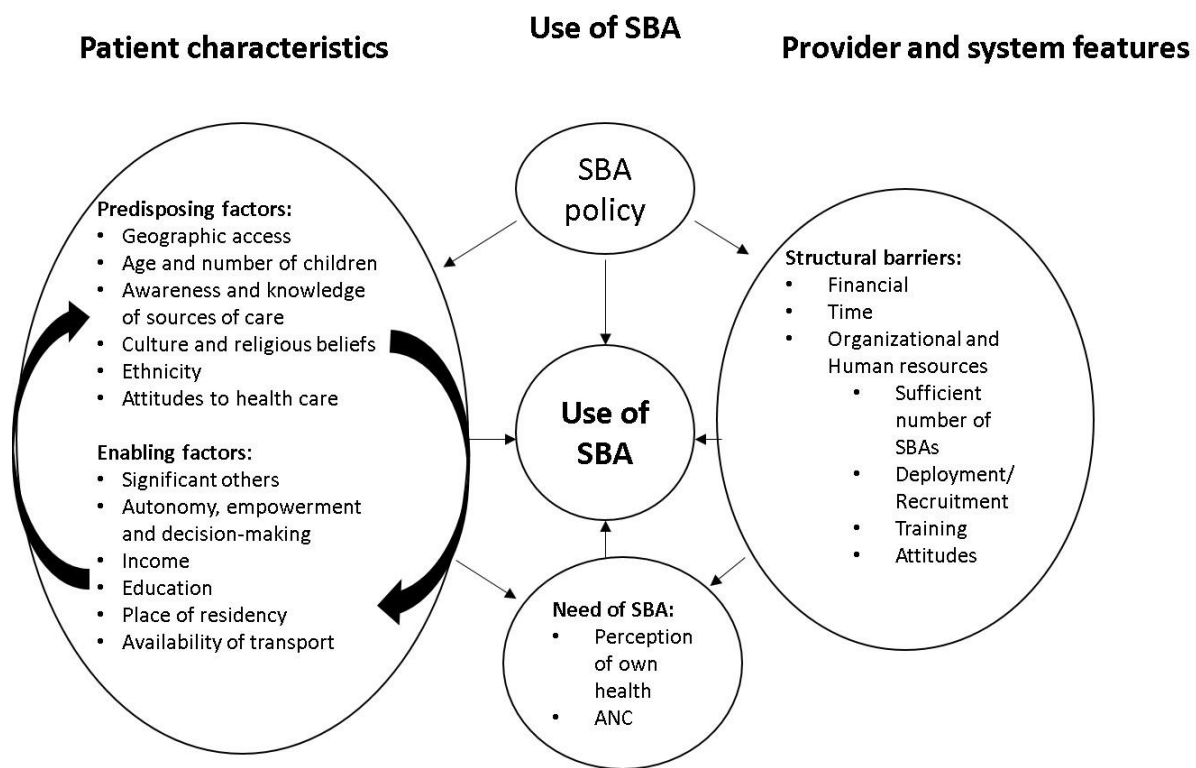


Figure 2-1 Factors affecting SBA utilization, modified after Aday and Anderson (1974) and Dutton (1986)

The model (fig 2-1) is divided into three groups and their underlying factors and barriers for use. Aday and Anderson (1974) stresses the fact that the factors and barriers interrelate with each other. This is also the case in this thesis, as the arrows shows in the model. Predisposing factors as family size / composition, awareness / knowledge / education and geographic access, are also enabling factors. The accessibility element is also found in different places within the model. The term

*accessibility* may be considered a slippery notion but can be described as something “get-at-able” (Phillips 1990). According to Phillips, any discussion of access to services should begin with a number of distinctions: 1) *Between physical (potential) accessibility and revealed accessibility (utilization)*; 2) *between equity and equality of provision*; 3) *between quantity and quality of services* (1990:103). “Potential accessibility” refers to a “*facility of a given type within a specific distance of an intended user population (and) is frequently considered to give more or less equal access to all potential users*” (Phillips 1990:104). This means that the facility *exists* and thus may be *used*. Western facilities are often geographically inaccessible to the majority of populations, due to both geographical and economic limitations. The time and cost of travel can be an expression of distance. A well-known spatial phenomenon is what Phillips (1990) calls “distance decay”. When a service gets more distant, less people will use it. Still, people have different opinions on distance. Far distances for some may be manageable for others. The financial ability to use a service is a factor that may prevent utilization together with facility opening times. Accessibility is further elaborated upon in the following sections.

#### 2.4.1 Predisposing factors

This group of factors contains “*genetic, attitudinal, personality, and environmental factors that are associated with health, or lack of it, in a person*” (Medilexicon.com). Family size, composition, and health beliefs are factors that predispose to utilizations (Phillips 1990), as “*the predisposing component includes those variables that describe the “propensity” of individuals to use services*” (Aday & Anderson 1974:213). Geographic access (discussed under), age, and number of children may play important roles in approaching a service. It is fair to believe that first-time mothers are more anxious and are thus more predisposed to seek health advice from professionals. On the other hand, having undergone several deliveries may ease a pregnant woman’s anxiety, and she may be confident giving birth at home. Older women may seek health care services because of the increased risk of complications during pregnancy. Awareness and knowledge of sources of care, together with cultural and religious beliefs and values, are important factors and are highly relevant in rural areas. Environmental factors like geographic access are very important in health seeking behaviour in low-income countries. It is useful to distinguish between *locational accessibility* (a measure of proximity) and *effective accessibility*, which is accessibility dependent on having the time, mobility and resources to reach a service. If a woman in labour



experiences severe pain or obvious complications, the most important thing is to get to a hospital or a clinic *quickly*. If this clinic is next door, then we may claim that it is very locational accessible, and it is also effectively accessible if the woman can get in her car and her husband can take her the fifty kilometres on the new highway to the hospital. Ethnicity is considered to have an influence on utilization, as many cultures and ethnic groups coexist within national boundaries in the global south. In some of the countries, the urban-rural ethnic differences leads to poorer physical and social access to health care (Phillips 1990). Often, patients at a district hospital can be confronted with stigmas because of ethnicity or attitudes because of affiliation to other social groups or classes. Attitudes to health care is the last predisposing factor explored in this thesis.

#### 2.4.2 Enabling factors

*“Enabling factors are forces that facilitate or impede individual, collective, or environmental change based on their level of availability”* (Oxfordbibliographies.com). The families or communities’ health resources may enhance or frustrate use of health care services in spite of the predisposition to use (Phillips 1990).

In the global south, especially in rural areas, it is normal that women live with their husband and his family. These traditions are incorporated in the society. The mothers-in-law and husbands are the main decision-makers within the house. These *significant others* can directly influence utilization behaviour and are *“non-professional lay-persons (kin, or specially respected group members) that may be consulted in preference to, or before, professional advice being sought”* (Phillips 1990:180). This means that a mother-in-law and her beliefs about skilled attendance during labour may be vital for the pregnant woman’s actions – whether to seek care or not. Autonomy, decision-making and empowerment overlap with significant others, but are isolated important factors for use of health care services in the global south. Income and economic factors tend to be stressed in all models for health care use, but especially the ones made by economists. In poorer countries economic factors are crucial, and Phillips states that the opportunity cost of utilization for health services *“involves the cash paid out for charges, drugs and transport, and the value of time (which may be considerable, involving travel and waiting) expended on the visit”* (1990:196). The household income, related to the economic aspect, decides how much money can be spent on i.e. travel expenses or members of the family to follow and cook for the patient while at hospital. The head of the family often plays a significant role in the allocation of the economic

resources (Curtis & Taket 1996); these persons are not likely to be the pregnant woman, rather her husband or mother-in-law. The price has two components: the cash monetary costs and the indirect (non-pecuniary) cost in terms of time. Education appears to be an important specific factor influencing health care utilization. Knowledge on when to use a service and how to use it effectively is linked to income and socioeconomic status (Phillips 1990). Place of residency (urban / rural) related to the distance to the hospital, may be a crucial factor to seek health care. The availability of transport is another crucial factor. Ideally, and in the perfect world, every woman in need should be able to acquire an ambulance on short notice before driving on a smooth, new highway to the nearest hospital. Unfortunately, this is not the case, and transport continues to be of great importance for health care use. This is related to place of residency and urbanity and whether people live nearby in cities or in rural areas. Transport and infrastructure are also structural barriers discussed below.

#### 2.4.3 Need of SBA

All the above-mentioned factors influence the need and use of health care services. Need is measured by symptoms or illness but may also be influenced by the latter, in addition to demographic factors. The level of need will influence use or non-use of a service when the predisposing and enabling factors act together (Phillips 1990). Need is again different for a pregnant person, than for a diseased person. Perception of own maternal health, pain and complications are elements of this group of factors. When preventive or promotive services are being introduced, the distinction between self-determined and physician-controlled use of health care services may be valuable (Phillips 1990). Use of health care services also affect future use, and ANC would be a good example of this, as the patient is encouraged to make appointments for next visit. The skilled attendants may be *“influenced by their professional training and opinions as to value their treatment, whereas patients may well be sensitive to financial, organizational, spatial and cultural impediments to utilization”* (Phillips 1990:185). Signs of complications may be evident for a health worker, compared to the patient, who may think that the pregnancy continues as normal.

#### 2.4.4 SBA policy

SBA policies relates to decisions, plans, actions, strategies and interventions that have specific health plan goals within the society. Improved access to health care are often important goals of health policies, and relate to access in a political context (Aday & Anderson 1974). This relates to the structural barriers, and how the government works to overcome these barriers. Targets and goals are developed for both long and short term.

#### 2.4.5 Structural barriers

In order to provide effective health services, the relative importance of the various barriers needs to be recognized. These barriers hinder use of a health care service, and the goal of reducing these barriers would facilitate increased use. The barriers are subjects of attention in nationally and locally based health policies, as are how these policies are implemented in society. Financial barriers continue to be a major obstacle in most of the global south, especially for rural people, and ethnic minority groups. Whether a patient has health insurance plays a large role in access to services. Time, for example spent in the waiting room or by foot on the way to the hospital, plays a role in accessing health care. Distance is perhaps the most crucial factor linked to utilization of skilled birth attendants in Nepal. The geographical distances are great, and the road conditions are poor. *“Physical distance naturally acts as a barrier or disincentive to attendance at almost any sort of facilities for good practical reasons”* (Phillips 1990:209). The hospitals, often located in cities, are only a theoretical option for the people living in remote and rural areas. It is assumed that the importance of alternatives to institutional care rises as the distance from a hospital increases. Other structural barriers could be how the primary health services are organized in the society, with regional hospitals ranging to sub health’s posts in rural villages. The Human Resources aspect has an important influence on utilization of a service. Without staff it is impossible to deliver services to people. Demographic factors play a role here as well, as most SBAs are women, especially among nurses and midwives. The training and experience of the staff are crucial barriers and also affect the needed number of SBAs in an area. A barrier may be the staff’s attitude, as they are educated and perhaps possess a different social standing than their patients. The way health workers communicate with patients may determine the future health-seeking behaviour of a patient.

## 3 Methods

### 3.1 Introduction

This chapter is designed to present how different techniques were used in order to be able to concretize the findings in this thesis. The research methodology is presented before explaining the steps in order to determine research country. This thesis has mainly used qualitative methods. However, quantitative elements are included in this study. Silvermann (2007) argues for the use of counting in qualitative research. He suggest that numbers count with practitioners and policy-makers, and he believes that “*quantifications can sometimes help us sort the facts from the fancy and, thereby, improve the validity of qualitative research*” (2007:110). By combining methods, an empirical overarching framework is obtained, where the aim is to present information both from quantitative methods, though statistics including rates, trends and percentages, and qualitative methods, including document analysis, literature study, interviews and observations (ethnography). Clifford et al. (2010) explains that drawing on such different sources or perspectives is often named *triangulation*, which researchers do in order to maximize their understanding of the research questions. These methods generate complimentary aspects of the same phenomenon.

### 3.2 Research methodology

A well-defined methodology is needed for every study. Research methodology is defined as a coherent set of rules and procedures which can be used to investigate a phenomenon or situation, within the framework dictated by epistemological and ontological ideas (Kitchin & Tate 2000). The research methodology depends on the research objectives and questions. When approaching a topic like delivery care in Nepal, a broad methodical approach will hopefully capture many aspects and present the issues we are facing in a comprehensive way. Thus, the research for this study has used both qualitative and quantitative data and a combination of partly positivistic and non-positivistic approaches and methods. Emphasis is held on the qualitative document analysis and literature study conducted during the desk-study at WHO. In order to focus on the preferred bottom-up perspective argued for in the theory section, semi-structured interviews, observations and informal conversations in Nepal are included.

The research went through several methodological stages. First, I gathered secondary quantitative data (numbers and statistics) from the WHO SBA-database and resources.

With the statistics in hand, I continued with a broad study of literature and a qualitative study of government documents, before conducting two interviews with key-persons in Geneva. These interviews were conducted to train for the interview sessions in Nepal, and to obtain background information on SBA and maternal mortality in the global south. Thus, the results from these interviews do not appear in the empirical part. In Nepal, I conducted six formal interviews (two key-informant, four primary informant) in addition to five informal interviews and an observational study.

During the research period, my fieldwork was performed in two parts, thus two research stays were completed:

1. In the WHO (Department of Reproductive Health and Research), Geneva, Switzerland. Three methods were used in this period:
  - a. Quantitative methods: obtaining secondary numerical quantities from WHO-approved sources and compiling statistics and graphical representation of four countries in South-Asia on the use of SBA between 1990-2012
  - b. Qualitative methods: a document analysis of the government national policies on SBA between 1990-2012 in Nepal and a literature study defining the most important variables affecting use and non-use of this service
  - c. Semi structured interviews with two key informants, to obtain background information
  
2. In Kathmandu, Surkhet and Dailekh in Nepal. Three qualitative methods were used in this period:
  - a. Semi structured interviews with two key informants and four primary informants
  - b. Informal conversation interviews with women of reproductive age
  - c. Observations

The approach used in this thesis is similar to a funnel approach, where I started out broadly, searching for a research country, defining concepts and exploring general national issues. Thereafter, the approach became increasingly focused and narrow during the research period. For me, it felt right to start with the development trends in a quantitative data analysis, and thereafter

to delve into the causes behind these trends, diving somewhat deep into the qualitative data of affecting factors, barriers and interventions. After I had the quantitative overview that portrayed the trends in use of SBA, I continued with a comprehensive literature study and a document analysis of government papers. In Nepal, the approach became more local, and the results more specific.

**Table 3-1 Methods used and type of data generated, divided into the time periods and place**

Place / Time	June	July	August	September
WHO - Geneva	Statistics of SBA - Quantitative method with secondary data Chapter 5	Document analysis and literature study –Qualitative methods with secondary data Chapter 6 and 7		
Kathmandu and Western Nepal				Semi structured interviews, informal interviews and observations – Qualitative methods with primary data Chapter 6

In the following sections of this chapter, the quantitative method is presented, followed by a justification for the use of the secondary figures. The chapter then discusses the qualitative methods used, how secondary data was analysed and how primary data was created.

### 3.3 Preparatory phase

Crang & Cook have advised researchers in ethnography to develop contacts in “*the organisation/industry/community/area in which you are interested to find out what research may be possible within the constraints of access, time, mobility and money available for ‘fieldwork’, and to undertake methodological, theoretical and linguistic preparations accordingly*” (2007:18). This involves talking to friends, relatives and fellow students about the project, contacting governmental institutions and NGOs, and emailing individuals identified through targeted web surfing. Crang and Cook (2007) stress the importance of developing a wide network of contacts and to get the snowball rolling.

Due to the uncertainty of my tasks and workload during the research internship at WHO until my arrival, it was challenging to make specific research strategies for my stay. I was not sure if I would be given a geographical area to work with or not, but I had corresponded with my supervisor there and briefly discussed south / Southeast Asia as a target area. Before departure, I did a general literature review on the use of SBA in the global south, with particular attention to rural areas.

Well installed at the WHO, and after Nepal was decided as study area, a new preparatory phase started. Before departure to Nepal, I sent multiple emails to people that could have interesting points of view for my thesis. I contacted both people within the WHO system and people and organizations outside. People were very friendly and helpful.

A non-governmental organization I contacted suggested a district and regional hospital for me to visit while in Nepal, and I was provided with contact details for people (key-persons) in Kathmandu. Overall, I spent the last two to three weeks in Geneva planning my trip to Nepal. I tried to make the plans and appointments as specific as possible due to my limited time in the country.

### 3.3.1 Language and interpreter

To help establish an environment where informants can answer freely, I decided to hire an interpreter, which also could contribute to a greater understanding when travelling in West-Nepal. Both the researcher and the interpreter's worldview, language and personality will influence on the data gathered, especially how the informants' answers are understood (Crang & Cook 2007). I found her through contacts from the university. The first collaboration with my interpreter, was when she translated the interview guides and consent form from English to Nepali. I emailed her the forms, and she replied with the translation, for me to forward to Nepal Health Research Council (NHRC). I had no way of ensuring that the translation was correct, and I knew that this could affect the research process, especially the data analysis (Clifford et al. 2010). I had to assume that the questions meant the same in Nepali as in English, and I had to accept that my analyses would be based upon the translation, not the original speech. I met with interpreter the first day in Kathmandu. It was quite surprisingly when she turned out not to be fluent in English. This is a source of error may lead to loss of information when the interviews made in Nepali were translated

into English before transcription. Imprecise translations and distorted answers were partly corrected when I got a new interpreter to translate the interviews when I came back to Kathmandu.

### 3.3.2 Getting the ethical research approval from NHRC

I was advised to apply for a research approval regardless of methods and the limited time in Nepal. The requirements for getting the approval including writing a cover letter, making a budget for my stay in Nepal, writing a detailed proposal summary, showing the interview guides and consent form both in English and in Nepali in addition to presenting the recommendations from the university. After correspondence with NHRC back and forth, the final proposal was ready, and was undergone by their board. NHRC returned the proposal with remarks and suggestions for change, and after these were accepted, they would consider my proposal in a new board meeting.

Therefore it was surprising when I realized that NHRC had not started their final review of my papers when I arrived Nepal. This indicated a delay for me, as they proposed a month processing time. I decided to start working as scheduled, and to inform my informants that I was waiting for the final papers. The most important aspect was to get the approval ready before leaving for West Nepal. I got the final research approval (appendix B) while I was in Western-Nepal, and could proceed with the interviews as planned.

### 3.4 Quantitative methods

Medical geography has traditionally used quantitative methods through “mapping”-approaches and spatial data analysis. Graphical and statistical methods are used to explore the data, also called exploratory spatial data analysis (Gatrell & Elliot 2009). Kitchen and Tate (2000) describe quantitative data as generally structured, consisting of numbers or empirical facts. The aim is to produce reliable evidence through a large sample (Silvermann 2007).

In the first phase of the desk study, at the very top of the funnel, I performed an analytical search in the lower and upper scale regarding trends in the use of SBA and maternal mortality. I explored countries that have changed significantly since 1990. From my general literature search, I learned that South-Asia and Sub-Saharan Africa have the lowest use of SBA worldwide. However, there can be major differences between countries from these two continents. Thus, I had to narrow it down, and decided to compare countries in South-Asia in order to find my research



country. A fair basis for comparison would be to select countries that do not differ too much from each other, in terms of population size, geographical size, location, culture and religion.

### 3.4.1 Secondary quantitative data sources

This study does not contain quantitative primary sources; however, there are different secondary sources used. In general, Kitchen and Tate (2000) outline three justifications for the use of secondary data: conceptual, methodological and economic. The conceptual justification in this regard, is that this data does not exist elsewhere and is not available in any other form. I preferred to explore the available statistics before I could start exploring the qualitative data. For this stage, research country was not determined. Methodologically, the use of the secondary data will allow me and other researchers to corroborate analytical findings while contributing to the body of literature. The economic justification is understood, as gathering this kind of data (use of SBA on a national level) worldwide through many years is both time-consuming and very costly.

**Table 3-2 Quantitative secondary sources used to investigate trends in use of SBA, and determine research country**

	Nepal	Bangladesh	Cambodia	Laos
1994		NDHS		
1995			MoH	
1996	NDHS	MICS		
1997		NDHS		
1998			NHS	
1999				
2000	CSB	NDHS	NDHS	MICS
2001	NDHS	BMMS		
2002				
2003				
2004	CBS	NDHS		
2005			NDHS	NSC / UNFPA
2006	NDHS	MICS		MICS
2007		NDHS		
2008				
2009				
2010		BMMS	NDHS	
2011	NDHS			

The quantitative secondary data used to find an interesting and relevant research country was gathered from WHO-approved national surveys in *Bangladesh, Cambodia, Nepal and Laos*. These are all countries that qualify as on-track in reducing MMR with 75%, and achieving MDG5.

I spent the first three of the 11 weeks at WHO doing a comparative investigation of statistics from mainly household surveys and health services statistics (WHOSIS 2008) from the selected countries (table 3-2). This set of secondary data allowed me to see the changes in areas of South-Asia through the past 20 years and provided me with an overall structural perspective – a top-down perspective.

While working with the statistics at the WHO, I understood the importance of keeping a critical view of the data, even if the numbers came from trustworthy sources. The proportion of births attended by skilled personnel is a variable developed by a household questionnaire. I tried to always be aware that the indicators could provide insufficient information or could be outdated.

#### 3.4.2 The proportion of births attended by skilled attendants – statistical comparison

As mentioned, I wanted to find a research country in South-Asia, which showed interesting trends and development in both the reduction of MMR and in use of SBA during the last 20 years. It turned out that several fit these criteria. The original plan was to compare strategies and interventions between two countries, but I realized that a project of that scope would require me to travel to both countries after my desk study in Switzerland, and I had simply not enough time. Therefore, I decided to find one country to dive into more deeply in order to explore the development trends and conduct fieldwork there.

By using WHO-approved sources of information like data from the Ministry of Health (MoH), National Demographic Health Surveys (NDHS), Multiple Indicator Cluster Survey (MICS), Central Bureau of Statistics and others, I explored the SBA-trends in Bangladesh, Cambodia, Nepal and Laos during this first phase of the research internship. The reasons for investigating these “on-track” countries in particular are based on several aspects. One aspect was the advice from the Statistics Department at WHO regarding the selection of available and reliable data in both the usage of SBA and the MMR. Countries as Myanmar, Afghanistan and Viet Nam have little or insufficient data, and therefore would be inadequate for this type of comparison. Subcontinents like China or India are too big in both geographical size and population and are therefore hard to compare to other countries. With a development perspective, I chose not to include

Brunei, Iran, Malaysia, Maldives or Singapore. Thailand and Sri Lanka had also quite stable MMRs throughout the past years.

This being said, one can think of many reasons not to be able to compare the development in Bangladesh, Cambodia, Nepal and Laos. Different religions, political and social systems, economies and many other aspects are not taken into account in this thesis. What we will focus on here is the improving trend in maternal mortality and use of SBA, and these countries have this improving trend in common. This trend prompts further research to explain the cause or causes of the trend. The next step would be a review of government efforts and policies that were implemented to reduce the mortality and increase the provision of delivery care. This stage was an important part of my research process, as I looked for and made my own graphics to compare available quantitative data and then used qualitative methods to dive more deeply into the chronology of this specific country.

By the end of the first two weeks in Geneva, I had made a system where I had listed the results from every available survey from the previous 20 years in order to look for trends in the use of SBA (appendix C). I separated the rural and the urban use and listed, wherever available, other valuable specifications, such as education, region, sub-region and wealth quintile. I knew from my general literature search that there was a correlation between these parameters and the use of SBA, and I wanted to see the relationship for myself. I made graphic illustrations for all countries, in order to get a sense of the SBA trends when comparing this to WHO's estimations of maternal deaths. These are found in appendix D.

After becoming familiar with the data from the chosen countries, one country stood out from the others: Nepal. The steep curve in MMR decline, together with the increasing use of SBA during delivery in many areas, made me curious.

It was time to move from phase one – identifying a research country by a quantitative study – and into phase two – by qualitative methods to undertake an extensive literature study and a document analysis on the available governmental sources.

### 3.5 Qualitative methods

Exploring and comparing existing statistics over several years facilitates the search for *evidence* of a change in a pattern, perhaps from a low use of SBA in some areas in the very

beginning of the 1900s to a more frequent use in the same area in the recent years. The second part of the research will allow me to explore *why* this change has taken place.

Qualitative methodology is now much used in human geography because it adds meanings, values, feelings, personal experiences and points of view to the research. Qualitative methods help to provide an understanding of social phenomena and human behaviour built on plural of analyses of social, economic and political processes. Kitchen and Tate (2000) describe qualitative data basically as generally unstructured data consisting of words, pictures and sounds. This is interpretative data gathered personally and identified by small sample sizes of individuals. Silvermann argues that the strength of qualitative research “*is that it can use naturally-occurring data to locate the interactional sequences (‘how’) in which participants’ meanings (‘what’) are deployed*” (2007:83). When the character of a phenomenon is established, it is possible to answer “why-questions” by investigating how the same phenomenon is organizationally embedded.

With a feministic research perspective, qualitative methods are welcome. This kind of “conflict-based” approach argues “*that historical relations between men and women are basic to an understanding of society; power is divided unequally with men the dominant group*” (Gatrell & Elliot 2009:39). I feel the feminist research approach is well fitted for this kind of research objective, because it allows women, who are often poor and sometimes oppressed, to be heard.

A weakness or limitation of a qualitative approach would be that the findings are not generalizable and representative, nor objective as they are in quantitative research. This is further elaborated upon under rigor in qualitative research, by the end of this chapter. The absolute strength of a qualitative approach though is to be able to say something important about the human perception, about the people behind the numbers and to explain why people act and think the way they do.

### 3.5.1 Secondary qualitative data

A general justification for the use of secondary data is included in 3.4.1. The secondary qualitative sources include studies, research, reports, guidelines, press releases, government publications and minutes etc. that I studied during this second phase of the research internship at the WHO. In this stage, it was extremely important to have a critical view of the texts and to be aware of the different situations and interests of the authors. Altogether, I spent 6 weeks on this phase and went through thousands of pages. The days in Geneva were spent on reading and taking

notes, and here I found it useful to make a system to keep track of all the documents I went through (Appendix E). Forbes (2000) points to the deconstruction of texts as a way to figure out why we think the way we do about certain phenomena. Much of the literature on the use of SBA identifies different factors that affect women and their delivery care preference. Different studies attribute unequal weight to the different factors. Decisive factors in one society may not be decisive in another. Forbes argues for breaking the text into components for analysis, allowing us to investigate frequency and contrasts between them. With the literature study, I wanted to be able to categorize different factors and group them along the way. When analysing qualitative text, Fairclough (2005) uses a relational approach, which reflects ideas from structuralism. This is also relevant in my case, as the relationships between various social practices, for example in poor rural areas, can affect the use of SBA.

### 3.5.2 Document analysis of government strategies and interventions to increase use of SBA

To study the timeline of events that took place within the development arena as the SBA trends shifted in Nepal, a document analysis can prove useful. When “*studying contemporary society, document data can provide valuable insight into the structures and mechanism of socio-spatial thinking and practice*” (Kitchin & Tate 2000:227). These official documents are normally available online and provide detailed information of the plans and projects initiated by the government, in addition to comments on statistics and development. Ideas and proposals as well as revisions of plans and progress are all a part of the information gathered in this method. When using official sources it is important to take into account who wrote the document (authenticity), for what purpose (credibility), and why it has been written, rather than just study the document (Kitchin & Tate 2000). It is important to remember that humans write all documents, thus all documents are subjective and represent a certain viewpoint. One needs to ask about the representativeness of the document, and if there has been any selectivity in the information presented. During an analysis, it would be of interest to investigate the goals and objectives stated in the documents and if these could be in conflict with each other. It is relevant to see how the government maintains equality and equity perspectives by trying to analyse the access for different groups, both distinguished by geography and income.

In this thesis, I have mainly explored two government documents:

- 2002. *National safe motherhood plan (2002 - 2017)*. Government of Nepal, family and health division (GoN/FHD).
- 2006. *National policy on skilled birth attendants*. Ministry of Health and population (MoHP).

I have also used the following official documents for my analysis:

- 2007. *National In -Service Training Strategy for Skilled Birth Attendants 2006-2012*. National Health Training Centre, Ministry of Health and population, Nepal. Ministry of Health and population (MoHP).
- 2011. Annual report Ministry of Health and population / Department of Health services (DoHS). 2067/68.
- 2012a. *Report of the joint annual review meeting 2012*. Available from (1<sup>st</sup> document): Ministry of Health and population (MoHP).
- 2012b, *Progress Report on Gender Equality and Social Inclusion for NHSP-2*. Available from (2<sup>nd</sup> document): Ministry of Health and population (MoHP).

Together with the government documents above, the studies featured in the next subchapter allowed me to look into four strategies and interventions implemented to increase use of SBA in Nepal:

1. The Safe Motherhood program
2. The Aama Surakshya Karyakram (The aama program)
3. The National Policy on Skilled birth attendants
4. The National in-service training strategy

### 3.5.3 Literature review and studies of literature for document analysis

Literature is an essential element of academic research, and in this thesis, the literature search and study are large components of the knowledge gathering. Literature exists in multiple media sources like books, papers, journals, reports and on the internet.

*“Reading around the subject can help the researcher to broaden and refine ideas, be aware of different writing styles and help improving understanding of a discipline”* (Healey & Healey 2010:17). It is also important to recognize the work other researchers have done in your area and use this to legitimate and criticize arguments, learn about research methods in practice and eventually spot areas which have not been researched (Healey & Healey 2010).

A literature search strategy is useful when entering the field of undiscovered documentation for a thesis. In this thesis, the literature search was twofold; one general and broader search while preparing for the internship in WHO, and one more specific, narrower search related to the final research question during the internship. I mainly used printed WHO-sources and electronic databases like Medline, BMJ, BiomedCentral, PubMed, and Science Direct when I explored the theoretical body on the use of SBA. The general search online included topics terms like “health systems”, “skilled birth attendance/attendants”, “delivery care”, “rural”, “urban”, and “developing countries” and provided a general overview and insight on a global basis. Well-installed in Geneva, and after defining a research country, the search included terms more like “skilled birth attendance/attendants”, “Nepal”, “strategies”, “factors”, “barriers”, and “interventions”. In this phase, the topic was identified and key terms defined, as I began to search for relevant material in library catalogues, abstracts and reviews.

After a time of researching and reading, I started to categorize the studies I wanted to use in my thesis (appendix E). Some key words and elements of the used studies in the empirical part of this thesis are presented on the next page.

**Table 3-3 Publications used in the literature study to determine factors and barriers**

<b>Authors</b>	<b>Year</b>	<b>Predisposing / Enabling factors</b>	<b>Structural barriers</b>
Adhikari et al.	2011	Awareness	Financial (Aama-program)/ ANC
Ahmed et al.	2010	Religion, culture, decision-making	Attitude of staff, culture
Baral et al.	2010	Cultural, religion	Distance, transport, infrastructure
Busal et al.	2011	Bad experiences, awareness, transport	Financial (Aama)
Dhakal et al.	2011	Awareness, significant others, education, ethnicity, age and number of children	Financial, ANC, distance, transport
Sharma et al	2007	No of children, awareness, education, income, autonomy	
Thapa et al.	2013	Autonomy, significant others	

In this study, the literature (studies) on the use of SBA in Nepal has been used to determine factors and barriers in chapter 6. The literature explored in this thesis are also used to compliment the document analysis.

#### 3.5.4 Primary data sources

The final part of the research was conducted to gain first-hand knowledge and to support and reinforce the findings from the desk-study in Geneva. It illuminates the bottom-up perspective within geographies of health. The primary data were collected during a three-week stay in the study area, Nepal. Here I conducted six semi-structured interviews with key-persons and primary informants and five informal interviews with primary informants in addition to undertaking an observational field trip to training sites and hospitals in Kathmandu and Western-Nepal.



### 3.5.5 Sampling of the informants in WHO and Nepal

*Sampling* explains how the informants were selected to participate in the research. I adopted a “snowball” method of sampling, where one asks an interviewee if there are others in the same situation to be interviewed (Gatrell & Elliot 2009). I started out with the interviews in Geneva and used the network to make arrangements in advance for the fieldtrip to Nepal. I had three interviews set up when I arrived in Kathmandu. This was with a key informant and an SBA in Kathmandu, and an SBA in Dailekh. I also used the snowball method while in Nepal in order to reach other informants. In the table below, the informants are presented as key or primary informants, where the interview took place, gender and age group. Other important information apply for the women of reproductive age.

**Table 3-4 Sampling, informants in Nepal and Switzerland**

<b>Area / Informant</b>	<b>Key-informants Semi-structural interviews</b>	<b>Primary informants (SBAs) Semi-structural interviews</b>	<b>Primary informants Women in reproductive age (informal interviews)</b>
Geneva, WHO	X – Female, 30-40* X – Female, 50-60*		
Kathmandu	X – Female, 40-50	X – Female, 40-50	
Surkhet	X – Male, 30-40	X – Female, 30-40	X – Female, 20-30, pregnant X – Female, 20-30, pregnant X – Female, 30-40, mother of five, used SBA four times
Dailekh		X – 20-30** X – 30-40 **	
Rural village between Surkhet and Dailekh			X – Female, 20-30, pregnant X – Female, 20-30, mother of three, never used SBA

\*Obtained data only used for background purposes.

\*\*Anonymity and ethical considerations makes it impossible to specify gender as the cursor of the primary informants at Dailekh hospital.

Before each interview started, it was necessary to get all of the demographic data from the participant such as age, education level and occupation.

The key-informants were experts or persons regarded with extensive knowledge about maternal mortality (at WHO), the use of SBA services (in Nepal). The primary informants were SBAs with hands-on knowledge used on an everyday basis as well as women of reproductive age, pregnant or with recent birthing experiences.

### 3.5.6 Semi-structured interviews

The qualitative research interview aims to describe and understand the meaning of what the informants convey (Kvale 1996). When conducting interviews, the researcher uses a subjective approach, gathering data containing experiences, beliefs and feelings. These expressions are respected and valued as legitimate sources of data. “...*the conversation is shaped as much by the interviewee as by the interviewer. This form of relationship is given particular importance by those engaged in feminist research*” (Dyck & McLaren, 2004 in Gatrell&Elliot 2009:76). Semi-structured interviews allow the researcher to have an informal tone with the informants. This can perhaps provide a better insight into the real lives of people than formal interviews. The most important thing in doing these interviews is the preparation. Crang & Cook (2007) stress the use of preparing a checklist to steer the conversations and make sure that no question remains unanswered or unclear. This includes where the study took place, in which country and village, but also if the interviews were conducted in a school, hospital or in the home of the informants (Bui 2009). During the interview, it is important to get the information as correct as possible. I planned to use a technique from my journalism studies, asking the informants “am I correct when I understand that you say...?”, to be certain of the points made by the informant. One can also ask questions that cannot be answered with a yes / no but have to be answered in full sentences. This will also help develop reflexivity and avoid misunderstandings. The main aim is to get people to reveal their own perspectives (Crang & Cook 2007).

An important aspect of an interview setting is how the meaning transfers from the subject to the researcher. Important messages can disappear through language, context, culture and ways of communicating. A fruitful strategy could be to get to know the interpreter well and figure out how she / he use the language. The differences in social background, education, ethnicity and

culture may also contribute to misunderstandings between interviewer and interviewee (Grbich 1999).

I felt privileged to work with a group like the staff in the Department of Reproductive Health and Research at WHO in Geneva, and I wanted to take advantage of their knowledge and points of view. I also thought that semi-structured interviews in this environment would help me prepare for the interview sessions in Nepal. I developed two interview guides with questions regarding the term SBA, MMR and the data quality of the surveys, which I used as a point of departure for my analysis (appendix F). I recorded the interviews and later transcribed them, gaining insight into this time consuming aspect.

### 3.5.7 Informal conversation interviews

Talk as well as interaction can offer revealing data (Silvermann 2007). The informal conversational interview lacks any formal structure, and the questions emerge from the immediate context of the conversation (Kitchin & Tate 2000). The interviewer gives no or few directions, and the informants share their feelings, attitudes, experiences and points of view within their own frame of reference. The strengths of this approach are that it allows the interviewees to talk about whatever they care about and therefor challenges the preconception of the researcher. The interviewer is given a great deal of freedom, and the data produced can vary enormously from one informant to another and can thus be difficult to organize and analyse (Kitchin & Tate 2000).

### 3.5.8 Observations

*“Ethnography involves the description and explanation of the regularities and variations within a culture, interpreted within a definable framework”* (Grbich 1999:121). Observation is a technique within ethnography. *“Observation relies on the observers ability to interpret what is happening and why”* (Kitchin & Tate 2000:220). Different types of observing exist, and one can observe physical things as well as happenings and events. I chose to do a straight and overt observation at the hospitals I visited in Nepal, where the researcher does not engage with the group being researched but makes no attempt to hide the observation either (Kitchin & Tate 2000). The researcher is clearly visible and identified but does not take on any particular role in the room. Data is generated by note taking and diary keeping, resulting in a fairly complex analysis.

### 3.5.9 Practice and experience of the fieldwork in Nepal

The interviews and observations in Nepal took place during a three-week field visit to Kathmandu and western Nepal in September 2012. Altogether, six people were formally interviewed. The goal was to get their point of view on how the use and non-use of SBA had developed during recent years, factors and barriers to use, and how one could contribute to an increased use in the future.

Most of the interviews were held in English, so luckily I was able to ask follow-up questions as the interview proceeded. Unfortunately, this was impossible when the interview had to be done by my interpreter. All the interviews were recorded, and the ones in Nepali were translated and transcribed when I came back to Kathmandu.

I undertook two interviews the first week. Both were interesting but challenging, as I realized the strong (and sometimes constraining) feelings that were felt on this topic. One of the interviewees did not want to be recorded, saying it was not a good idea. I hesitated to ask why, as I did not want to appear rude or create a bad atmosphere. Later, it made me wonder if she was afraid of criticizing the government or existing power structures.

I introduced myself, and apparently, they had all met many researchers before. It seemed like research was a good reason to be there, but I still had the feeling of being an ignorant stranger, the *kuirini* (means foreigner or white girl in Nepali)– without the ability to fully understand the Nepalese context.

In Surkhet I was not allowed to conduct as many interviews I hoped for, due to the delay of the approval from the NHRC. However, I was able to spend time at the district hospital to observe, I even attended part of a delivery. This was very helpful, because the informal chats with the staff and patients gave me insight into how they felt about the delivery care provided.

When I started asking questions, I sometimes felt that my questions were too complicated and academic. At times the language barrier and my accent meant that I had to reformulate questions along the way – for example, asking, “many women not go hospital, but hospital is very close and service is free. Why not go?”

During one interview I felt that the informant was quite intimidated. He was sweating and did not say much at the same time that he was speaking really quietly. Sometimes I felt like the outsider in a hurry, feeling that they were thinking “*Why is that woman here? How can she do*

*research on this when she's not even Nepali?!".* Sometimes I had to ask questions more on the local scene, to break it up a little. When I was interviewing one informant, when we talked about family barriers and lack of women's right to decide whether or not to deliver at hospital, I felt the need to take some breaks from my questions and ask a little about their ambulance services and so on. This helped the informant to talk, it seemed like it was much easier to talk about this, than their thoughts on how to improve the use of the services. Also, I felt that my questions were too much alike – very often my informants would give the answers to questions 2 and 3 in the first phase.

The informal interviews were conducted during the time I was waiting for the final research approval from the NHRC. In addition, I had informal conversations with two women living in a rural area between Dailekh and Surkhet.

Observations were made when spending time in Western Nepal. During my stay in the regional capital of Surkhet, Birendranagar, I visited the Residual Training Center and the regional hospital of Surkhet. Here I was given a great tour of the facilities and were able to interview an informant. I also went to Sukombo by the river and visited a neighborhood with discriminated people from the *Dalit caste*, known as the untouchables in Nepal (Shrestha 2002). Here I spoke to two pregnant women, working as stonecutters, who both planned to give birth at the hospital.

The most distinct observation made during the fieldtrip, was to see for myself the extensive level of the poor roads. The “highway” from the airport to Kathmandu was one thing, extremely dusty and narrow, but the roads between rural villages in the hills of Western Nepal were something completely different. I was terrified when I sat on the bus between Nepalgunj and Birendranagar, watching the unsecured holes on the side of the road, leading a thousand meters down into the valley.

### 3.6 Analysing the gathered data

When interpreting the gathered data, Grbich (1999) suggests three areas are worth consideration. The first regards the *frames* applied by the researcher, as earlier experiences and the theoretical positions. Types of frames could be language, cultural, specialist disciplines or gender frames. The second area is the researcher's *interpretive focus*, generally defined by the researcher's intentions. The third potentially contentious aspect is the *reader's position* (Grbich 1999).

Due to the various methods used in this study, different ways of analysing are required. An enumerative mode is appropriate when dealing with documentation such as the quantitative figures

and the policies in the document analysis. This mode of analytical procedure allows the researcher to inhabit a distant position while performing a content analysis and use specific codes and categories (Grbich 1999). Issues of validity, reliability and generalizability are of special importance when dealing with the texts from the government.

When analysing the interviews and observations made in Nepal, I used an iterative approach, “*where the researcher collects data via interviews or observation, transcribes this information (for example, typing the interview from the recorded conversation), and reflects on what it has to say about the topic under investigation*” (Gatrell & Elliot 2009:82).

I highlighted ideas in the texts carefully and made comments in the margin after all interviews were transcribed. I made notes of my impressions and preliminary analysis after every interview. By doing this I had already sorted out the main message from the informants, in addition to misunderstandings, lack of clarifications and perhaps gaps in information (Grbich 1999).

### 3.7 Ethics

Working with a topic like delivery care in the global south, especially when working with poorer women in rural areas, means ethics have to be considered at every stage of the thesis. Even though it is important to be aware of ethical standards related to each of the different methods used, the most critical methods for ethical consideration are the interviews and observations. Arrangements between researcher and the researched must be clear at all times. Agreement on how the data are treated should be presented to the informants prior to the interviews. Confidential information (name, age, place of delivery, number of children etc) should be kept undisclosed by the data collector.

Richards and Schwartz (2002) point at the special ethical issues within qualitative health service research, stating four potential risks for the research participants: *Anxiety and distress* when being interviewed on personally sensitive topics, beliefs and actions; *exploitation* and the importance of power-relations (also discussed under feminist research in the theory chapter); *misrepresentation* as the analysis of the data is “*inevitably influenced by theoretical framework, epistemological commitments, personal characteristics and preconceptions of the researcher*” and *identification of the participant* in published papers (Richards & Schwartz 2002:136). Large amounts of information about the researched (health and illness, lifestyle, views about health care) are collected, and identification may lead to serious harm to the participant. In my case I kept this

information in my notebook. The informants were informed about the objective of the study prior to the interviews, and every informant was given a consent form to keep (appendix G).

Institutional authorization was obtained for the fieldwork (appendix B), and in this context I had to read through and accept the terms of “National Ethical Guidelines for Health Research in Nepal” (NHRC 2011). The paper includes several ethical principles, and the fieldwork for my thesis in Nepal was conducted in accordance with these principles.

A challenge in research is the interaction with people of different cultural background: “*“First world” researchers investigating “Third world” “subjects” need to be highly sensitive to local codes of conduct*” (Valentine 2005, in Clifford et al. 2010:112). There are several moral aspects to consider; being a fairly young, blond, rich woman, encountering the (poor) indigenous people, one needs to be sensitive and pay respect to the people.

While preparing for the interviews, I gave a lot of thought to the comparison of the western biomedical way of giving birth with a SBA versus the “normal” traditional way, and I came to a problematic issue: How is it possible to claim that one thing is *better* than the other is? It is important to be aware of and to consider the unequal and uneven power relations and moving away from the “ethnocentric” approaches to fieldwork (Smith in Clifford et al. 2012). When approaching the topic of delivery care in Nepal, it is important to accept the differences between western and non-western norms and standards in a non-ethnocentric way. A pitfall would be to compare, for example, Norway with Nepal when it comes to hospital, provision of services and use of services. This would be worthless and irrelevant. However, this study presupposes and builds on the many years of evidence-based science, which shows that more lives are saved globally with the implementation of SBA.

The fact that MMR has been extremely high in Nepal, and that many women have lost their lives due to causes considered avoidable – is unfair. Justice is an ethical principle that I appreciate and is probably the reason why I identify with the feminist research approach. Judith Preissle (2006) points out that most feminist researchers “*have integrated an ethic of care and relationship into their conduct of research*” (2006:527). However, the author emphasizes that when women study women for the purpose of relieving oppression, and providing knowledge and understanding of the “*huwomany*”, the research process can get complicated.

I believe the most important thing is to remember that my role as a western female researcher studying women in the global south should make me humble and careful, reliable and trustworthy.

### 3.8 Limitations

The limitations to this thesis are many. First, I am no expert on Nepal. My knowledge about Nepalese society is very limited, and unfortunately, I have only spent three weeks in the country. A lot of the material used in this study is based upon other authors' work. The primary sources were few, due to the limited time in the research area. This is by far not enough to draw conclusions on a general basis, but that was not the aim of the field study.

Nepal's way towards the on-track qualification regarding maternal deaths, contains many interventions from the government. This study only looks at a few and only includes findings from studies that are relevant today and point at relevant aspects for today's situation. For example, earlier studies that request interventions to meet the financial barriers for poor women or for transport costs (studies older than 2005/2009), are not included in the literature study, due to the implementation of these incentives in 2005/2009. Another limitation regarding the literature study, is that this was conducted in 2012, and studies published after that are not included in this study, with a few exceptions (i.e. Thapa and Niehof 2013).

Due to limited time in Nepal, the sample size of the informants was very small, with only eight people formally interviewed. At the same time, the sample selection was geographically limited to Kathmandu, Surkhet and Dailekh. Language and interrelated questions became a limitation as discussed under 3.5.9. All the informal interviews with the primary informants were conducted by my interpreter, and valuable information may have been lost. The questions in the formal interviews were too alike, and this may have contributed to have influence on the answers from the informants.

The structural barriers hindering the access to SBA as discussed in this thesis are limited to revolve around financial and time barriers, in addition to the HR-situation of SBAs. Emphasis is put on determining enabling and predisposing factors within patient characteristics in order to be able to meet the future demand for maternal care services.

As mentioned in the theoretical chapter, it is not possible to find accurate reporting or statistics on the number of complications related to deliveries in Nepal. Thus, the focus on just



mortality is a limitation. However morbidity measures are more imprecise and there are many pitfalls and weaknesses related to this. A discussion of the data quality of the surveys used in the quantitative study is found in chapter 5.

### 3.8.1 Rigor in qualitative research

Rigor is the researcher's attempt to use as tight a research design as possible. The criteria for establishing rigor in qualitative data are (Lincoln & Guba 1985 in Gaterll & Elliot 2009:83):

- *Credibility, defined as the authentic representation of experience*
- *Transferability, defined as the fit of the research findings outside of the specific study situation*
- *Dependability, defined as the minimization of idiosyncrasies in interpretation*
- *Confirmability, referring to the extent to which biases, motivations, interests or perspectives of the inquirer influence interpretations*

The first criterion, credibility, is what quantitative researchers would call validity, and it refers to the confidence of the trustworthiness, or the truth, of the qualitative research findings. If others can recognize experiences after only have read about these, the data are credible (Lincoln & Guba 1985). In this thesis, informants were people concerned with the research questions, mainly SBAs. Most of the key persons would also have qualified as SBAs but did not work with expecting women on a daily basis. I believe their voices are trustworthy, because they work with this every day. The sample selection may be small, but informants from both rural and urban areas were interviewed in order to demonstrate different views on the future progress. Lincoln and Guba (1985) outline triangulation as a technique for establishing credibility. In this study, different data collection methods are used, and by checking the consistency of the findings, the researcher may be able to call the study robust and comprehensive. On the contrary, Lincoln and Guba suggest prolonged engagement as another technique to establish credibility. This is to learn the culture, society and phenomenon of interest well, and unfortunately, this research falls short, due to the limited time spent in Nepal.

Transferability refers to what quantitative researchers would call generalizability – if the research findings can be transferred to other contexts or settings. In this study, findings from the

document analysis are not transferable to other countries, but the results from the literature study may be. Some enabling and predisposing factors and structural barriers may be general enough to apply to other countries in the global south. Results from the interviews and observations made in Nepal may also be transferred to the reader's situation or context; however, these results may increasingly include the researcher's own positions and biases, and thus prevent the reader recognize.

Dependability replaces the quantitative reliability or replicability, which examines whether we would get the same results if we did the same research again. This is impossible in qualitative research, but dependability refers to how consistent the researcher has been in collecting and interpreting data and reporting results.

Confirmability, similar to objectivity in quantitative research, refers to how "neutral" the findings of the qualitative research are, and the extent to which they are formed by the informant's and not the researcher's bias, motivations and interests (Lincoln & Guba 1985). Reflexivity is a technique for establishing confirmability and "*involves a process of self-awareness that should clarify how one's beliefs have been socially constructed and how these values are impacting on interaction and interpretation in research settings*" (Grbich 1999:65). My background affected the topic I wanted to research, being the daughter of a medical doctor and with other medical doctors in my immediate family. The position of the researcher shapes all research, and I am no exception. However, the angle of the study has changed since I started. With a point of departure being strictly medical and positivistic, other perspectives have coloured my research as it was carried out. I realized that my findings from the quantitative comparisons were grand figures, without any personal reasons behind. I could not understand how it was possible not to use a service when it was both available and accessible. During the time in Nepal, when I spoke to the people I did, I gained a greater understanding, and I worked along the way with my reflexivity. I used a field diary to take notes on the experiences after the interviews, and I used these notes to prepare and improve for the next interview. I changed my attitude from focusing on efficiency during interviews to taking more time and paying more attention to details and how I behaved.

## 4 Study area

### 4.1 Introduction

This chapter is designed to give the reader an insight into Nepal and into important parameters within health and health care. A subchapter follows a brief presentation of the country and its key figures on health and reduction of maternal mortality in Nepal. A description of the study-area follows, including the areas in western Nepal where most of the interviews took place.

### 4.2 Country profile

Nepal is a landlocked country in South-central Asia, bordering India in the south and China (Tibet) in the north. The country is 147,181 square kilometres and has a population of 26,6 million people (CBS 2011) divided among over a hundred ethnic/caste groups and speaking 92 mother tongues (NDHS 2011). 25,2% of the residents live below the poverty line (World Bank 2014), and the GDP per capita in PPP is 1102\$ per year (UNDP 2013). Kathmandu is the capital and largest city. The country is divided into three ecological zones: The Mountains, the Hills and the Terai (or

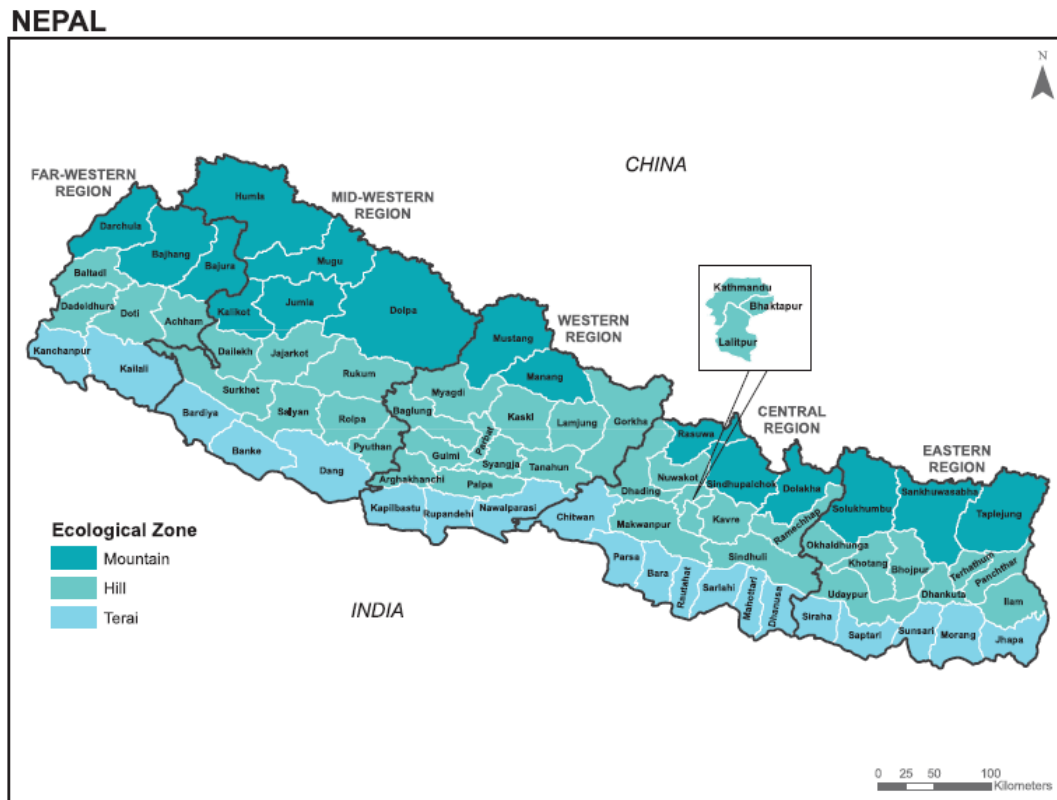


Figure 4-1Nepal and developing regions and ecological zones (NDHS 2011)

plains). Only 7% of the population lives in the mountains, approximately 43% live in the hills and 50% in the terai (NDHS 2011). The country is further divided into five development regions: Eastern, Central, Western, Mid-Western, and Far-Western for administrative purposes, consisting of 14 zones and 75 administrative districts (NDHS 2011). Districts are further divided into smaller entities called village development committees (VDCs) (rural areas) and municipalities (urban areas). Approximately 80% of the population lives in rural areas and depend on subsistence farming for their livelihoods (IFAD 2013).

Nepal is ranked as number 157 out of 187 on the Human Development Index (HDI). The crude birth rate in 2012 was estimated to be 21,6/1000, declining from 42,3/1000 in 1970, while the total fertility rate is 2,4 children per woman with 593000 births estimated yearly (UNICEF 2012).

In terms of gender and equality, Nepal's value on the Gender Inequality Index (GII) is 0,485, which places the country on 102nd place among 148 participating countries (UNDP 2013). The driving factors of the GII are "female representatives in parliament, gender imbalances in educational achievement and low labour force participation" (UNDP 2013:31). The higher the GII value, the greater the discrimination. The average value in South-Asia is 0,558, which shows that Nepal is less gender unequal than its neighbouring countries.

### 4.3 Health in Nepal

Nepal is making slow and steady progress towards achieving the MDGs. HDI-values are increasing for every indicator, but the health indicator stands out (the red curve in figure 4.1).

"Raising awareness of rights and social inclusion among service users and service providers is effective in improving service delivery and accountability" (MoHP 2012b:9). The Interim Constitution of Nepal, 2063 (2007), declared health as a fundamental right of the people in 2006. "Rights

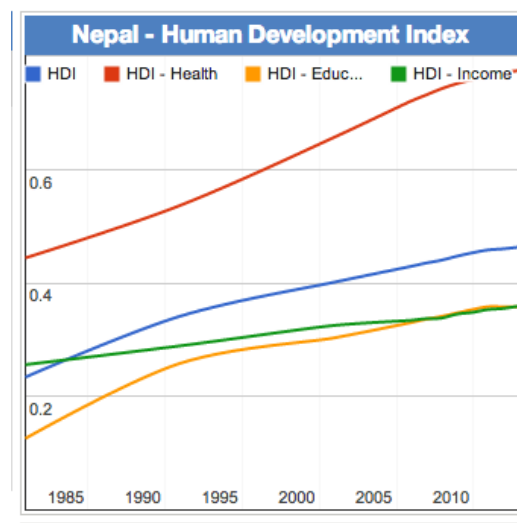


Figure 4-2 HDI Nepal (Source: <http://countryeconomy.com/hdi/nepal>)

regarding environment and health: (...) every citizen shall have the right to basic health services free of cost from the State as provided for in the law." (UNDP 2009:70) The constitution continues

with the rights of women “*every woman shall have the right to reproductive health and other reproductive rights*” (UNDP 2009:72). The state itself is assigned responsibilities: “*Responsibilities of the State: (h) to pursue a policy of establishing the rights of all citizens to education, health, housing, employment and food sovereignty*” (UNDP 2009:82). In 2007, the government of Nepal (GoN) declared essential health services free of charge through all health and sub-health posts aiming to reach particularly the poor and the excluded groups (RECPHEC 2010).

#### 4.4 Nepal in the context of reducing MMR and increasing SBA

Provision of the essential maternity services through the health system is organized into five levels: sub-health posts (SHP) (3129 throughout the country), health posts (HP) (676 throughout the country), primary health care centres (PHCC) (209 throughout the country), district hospital, and regional hospital. Some places have mobile clinics, outreach and volunteer maternity child health worker (MCHW) operating as well. SBAs (auxiliary nurse midwife) are normally at health posts, and basic emergency obstetric care (BEOC) are normally not offered at places other than primary health care centres and larger facilities.

Major interventions led by the government and different NGOs have resulted in an increased use of SBA since the nineties. Some of these are explored in chapter 7, but the most important ones are worth mentioning here as well. In 2005 the government introduced a maternity incentive scheme to meet the structural barriers of transport costs to facilities. Depending on the ecological zone the woman travelled in, she would get a cash incentive to cover the travel costs. In the following years free delivery care was first introduced in the poorest districts, and then rolled out nationally in 2009 (Morrison et al. 2011). A national policy on skilled birth attendants was implemented, followed by an in-service training strategy. Women in Nepal also receive a small cash incentive when attending the minimum of four antenatal check-ups during pregnancy.

In 1990, the maternal mortality was estimated to be as high as 770 per 100.000 living births, and 20 years later it is estimated to be 170 (WHO 2012a). This is equivalent to a decrease of 78%.

The trend in reducing maternal mortality ratio (MMR) in Nepal is significant. There can be many reasons for this. Low status of women and lack of access to health care and family planning activities may have resulted in the high ratio in the 1990s (Shakya 2004). Another reason is likely the passage of a new abortion law in 2002, with service provision implemented in Kathmandu in 2004. The legal framework went from being very conservative, with women sent to prison for

having an abortion, to becoming more liberal and allowing abortions up to 12 weeks normally and 18 weeks if the pregnancy was the result of rape or sexual abuse (Shakya et al. 2004). Despite the strong religion in the country, few major objections have been made to the reform (Shakya et al. 2004).

The picture below shows the trend in MMR compiled by MMEIG for the period 1990-2010.

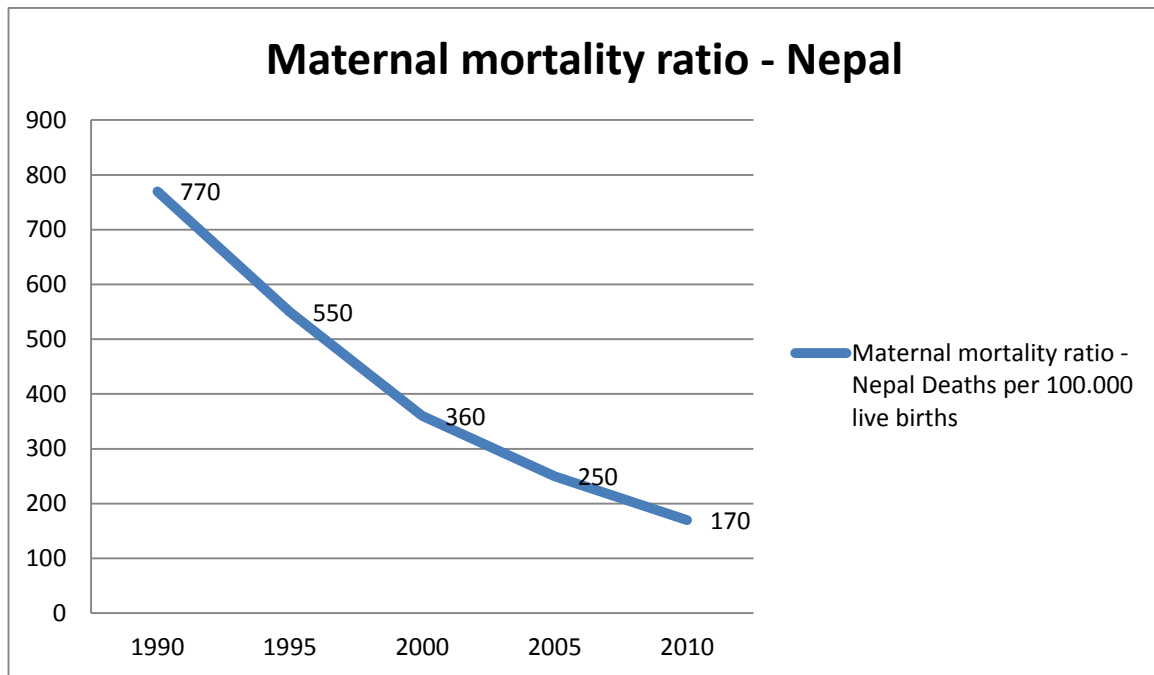


Figure 4-3 Maternal mortality ratio in Nepal (Source MMEIG 2012).

Considering the estimate for Southern Asia as a region had an MMR of 220 in 2010 and developing regions average an MMR of 240 (UN 2011), Nepal has made great progress in reducing MMR. In the utilization of SBA, however " *...only 36% of babies are delivered by a doctor or nurse/midwife, and 28% are delivered at a health facility, indicating that Nepal has a long way to go to meet the MDG target of 60% of births attended by a skilled provider*" (MoHP 2012a:11).

#### 4.4.1 Reporting of maternal deaths in Nepal

According to Gatrell and Elliot, there is a need to particularly discuss two issues within statistics. These are *modifiable areal unit problems and issues related to the numbers of cases used*

*to construct estimates of disease incidence, particularly standardized mortality ratios (SMRs) (2009:53).*

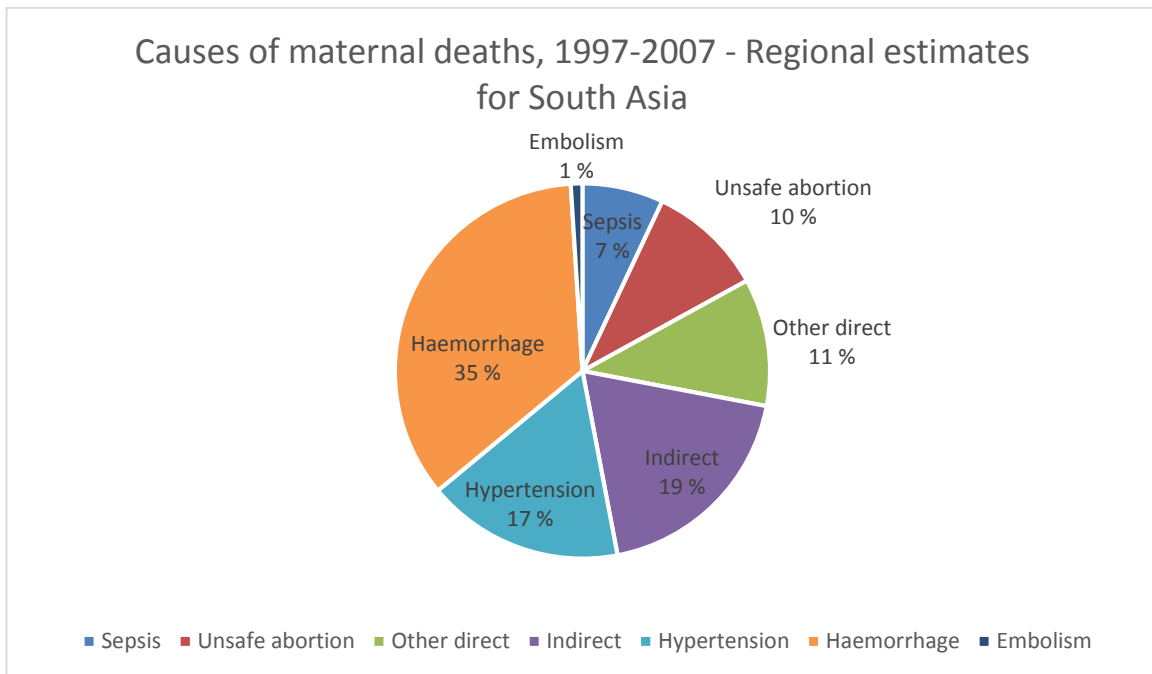
Accurate identifications of maternal deaths and causes are not always possible. Especially in settings where most deliveries occur at home, it can be a challenge for medical certifiers to determine the exact cause (WHO 2012a). Guides to reduce errors exist but are not implemented in daily use everywhere (WHO 2012a). The accuracy depends on many factors: one can be the skill set of the person reporting the causes of death, and another can be the knowledge of the actual patient's general condition. "*The pregnancy status or cause of death may not have been known and the deaths would therefore not have been reported as maternal deaths*" (WHO 2012a:7). When comparing maternal mortality across different countries and periods, caution need to be exercised due to sampling errors and reporting bias.

Nepal is categorized as one of "*89 countries lacking good civil registration data but where other sources of national data are available*" (WHO 2012a:50). At the same time, the model that estimates maternal mortality is the only model we have. This paper will not go further into the covariates of the model, the confidence interval or the pitfalls of the method. What I learned at the WHO is that the accurate numbers in the estimate are not the most important - the most important message the estimate can give is the *trends*, and in which direction the trends are moving.

#### 4.5 Comparing key figures – Nepal with neighbouring countries

In the following part I will present key figures and information on the “development situation” in Nepal and neighbouring countries Bangladesh, Bhutan and Pakistan. I made this brief comparison of the neighboring countries, in order to see how the SBA trends are portraying in the countries with similar geographical location as Nepal. All statistics are obtained from WHO (2012) and UNICEF (2012).

In general, haemorrhages are the main reason for maternal deaths in South Asia, attributed to 35% of the reported causes. This is followed by hypertension and indirect causes, together accounting for 36% of the maternal deaths (figure 4.2).



**Figure 4-4 Causes of maternal deaths in South-Asia (Source WHO 2012a).**

Life expectancy at birth in Nepal (2012) is 68 years, and the gross national income (GNI) per capita is 700\$. In the comparable countries life expectancy is about the same, while all the other countries have higher GNI per capita: Bangladesh – 840\$, Bhutan – 2420\$ and Pakistan – 1260\$.

The under-five mortality rate in Nepal has declined from 142 in 1990 to 42 in 2012, while infant mortality rate fell from 99 in 1990 to 34 in 2012. These trends are present in the neighbouring countries as well, but in Pakistan the under five-mortality rate remains quite high at 86 (although down from 138 in 1990) and an infant mortality rate of 69 in 2012.

The total adult illiteracy rate from 2008-2012 was 57% in Nepal and was approximately the same in Bangladesh and slightly lower in Bhutan and Pakistan. 66% of Nepali girls attend secondary school, and this is higher than Nepal’s neighbours with 47% attending in Bangladesh, 56% in Bhutan and only 29% of the girls attending secondary school in Pakistan.

From 2008 to 2012, 35% of deliveries in Nepal were institutional deliveries, and 36% attended by a SBA. 58% of the mothers had at least one antenatal care (ANC) visit, and 50% had at least four visits.



In Bangladesh, 32% of the mothers delivered with SBA, and 55% had at least one ANC. In Bhutan twice as many delivered with an SBA, 65%, while almost every mother, 97%, had at least one ANC. In Pakistan 43% of all deliveries were attended by an SBA while 61% had at least one ANC.

Adjusted maternal mortality ratio in Nepal is 170, in Bangladesh 240, Bhutan 180 and Pakistan 260.

While 72% of the urban deliveries are attended by an SBA, only 32% are attended by SBA in rural areas of Nepal. For Bangladesh the same figures are 54% of the urban births compared to 26% of the rural deliveries. Bhutan: 90% in urban and 54% in rural areas. Pakistan 66% to 33%. In other words, the rural / urban disparities are great regardless of country.

When it comes to household wealth, only 11% of the poorest women deliver with an SBA compared to 82% of the richest in Nepal. For Pakistan it is almost the same, although a smaller gap with 16% to 77%. In Bhutan 34% of the poorest and 95% of the richest use an SBA, and in Bangladesh 12% of the poorest and 64% of the richest deliver with an SBA present.

In the following subsections, I will focus on the research country only.

## 4.6 Study areas in Nepal

### 4.6.1 Kathmandu – Central development region (study area I)

The capital of Nepal, and largest city, is situated in Kathmandu Valley in the middle of the country and the Central development region (CR). The region has 24 district hospitals, 67 primary health centres, 173 health posts and 999 sub health posts that serves approximately 8 million people from various ethnic communities (UNFCO 2011a). 35% of the people live below the poverty line, and the literacy rate in the CR is 48% for the population above 15 years old. The region faces challenges to gender equalities: child and early marriages, domestic violence and dowry related incidents (UNFCO 2011a).

Some observations and interviews were conducted in the Paropakar Maternity and Women's Hospital in Thapathali, a city hospital with 415 beds and 84 bed occupancy rate (2011) (GRG Rankings and reviews 2013).

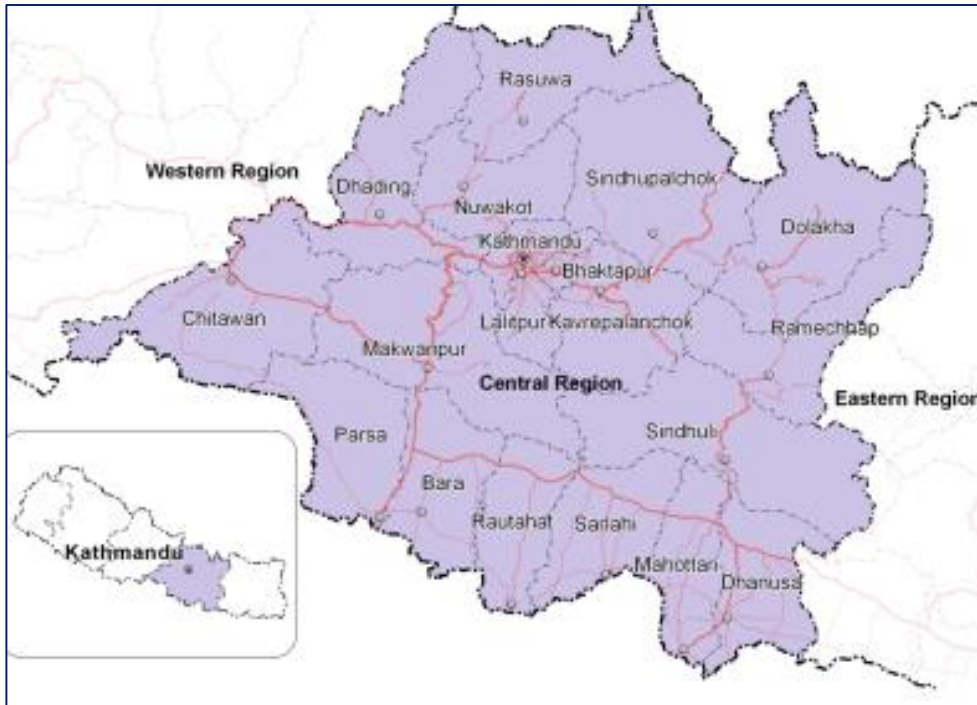


Figure 4-5 Central Development region (CR) Source: UNFCO 2011

#### 4.6.2 Surkhet and Dailkeh district - Mid-Western development region (study area II)

Surkhet and Dailekh are two districts situated in the largest of Nepal’s five development regions: the Mid-Western region. Both districts are in the hills of the region, although Dailekh is further north. The development region has some of the most economically depressed areas of the country, with 47% of the population living below the poverty line (UNFCOb 2011). MWR is home to two major ethnic groups: Tharu and Muslims. Surket is the regional headquarter.

The development region is vulnerable to natural disasters *“including droughts, floods landslides, hailstorms, extreme cold spells and epidemics. There are also risks of earthquakes as the region lies on a major tectonic fault line”* (UNFCO 2011b:2). In the region, 15 district hospitals, 30 Primary Health Centres, 129 Health Posts and 426 Sub-Health Posts serve approximately 3,7 million people.

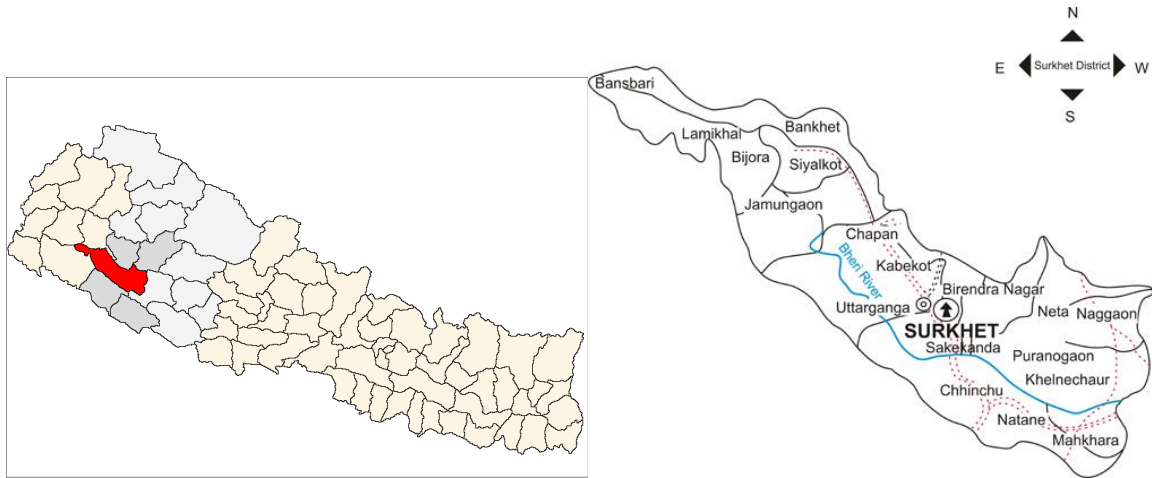


Figure 4-6 Surkhet district (maps from Wikipedia & Bulbuletall.blogspot)

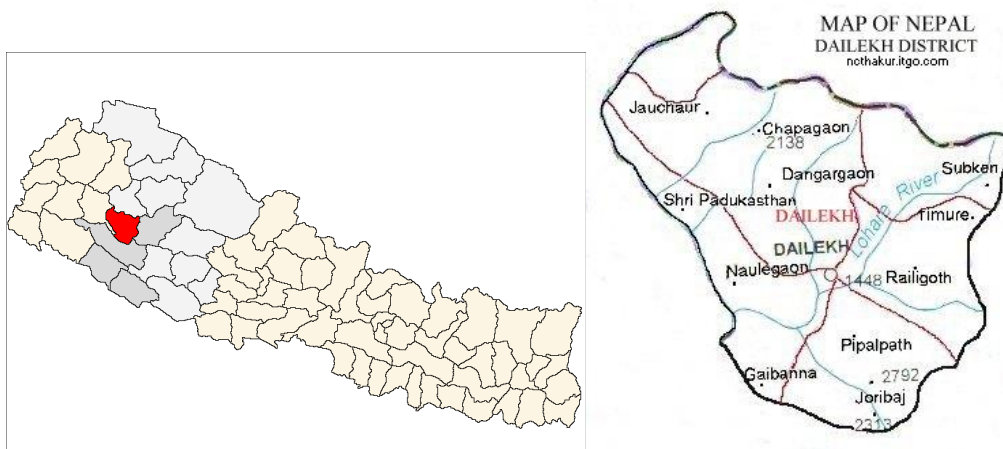


Figure 4-7 Dailekh district (maps from Wikipedia and ncthakur.itgo.com)

According to the CBS (2009), the literacy rate in the MWR is 63% for the population above 6 years old and 52% for the population above 15 years old.

One out of the two regional hospitals in Nepal is situated in Surkhet. The Mid Western Regional Hospital (Surkhet Regional Hospital) in Birendranagar has 50 beds and a 78,5 bed occupancy rate (2011) (GRG Rankings and Reviews, 2013). Observational study and interviews was conducted in and around the hospital, in addition to the district hospital in Dailekh.

## 5 Trends in use of skilled birth attendants in Nepal, 1996-2011

### 5.1 Introduction

The aim of this chapter is to present a quantitative overview of the past and present delivery care situation and trends in Nepal, by comparing statistics from WHO-approved sources. This overview is an excerpt of the statistical comparisons made between countries in the first phase of the data gathering. The proportions are provided from sources like National Demographic Health Surveys (NDHS) and the Central Bureau of Statistics (CBS) in order to graphically portray the trends that Nepal are experiencing.

The first subchapter shows the national trend in use of SBA in the country. Further trends in SBA use are graphically portrayed in relation to the parameters used in the surveys: urban / rural areas, development regions, ecological regions, education and wealth. A discussion of the methodology of the surveys and data quality is included in the end of the chapter.

### 5.2 Nationwide use of SBA

Nationally Nepal has an increasing trend in the use of SBA since the first survey from 1996 and this is especially evident between 2006 and 2011. In 1996 the proportion of births attended by SBA was 9%. The use increased slowly up to 12% in 2000, decreased to 11% in 2001, increased to 20% in 2004 (a different definition of SBA was used, this is discussed in 5.8),

decreased to 19% in 2006, and the last measure reports of 36% coverage of SBA in Nepal. However, the governmental target of 60% coverage in 2015, may be hard to reach. In Nepal, there are great disparities in access to health care between groups. This disparities exist between different ethnic groups, people with different levels of education and income, and between geographic areas.

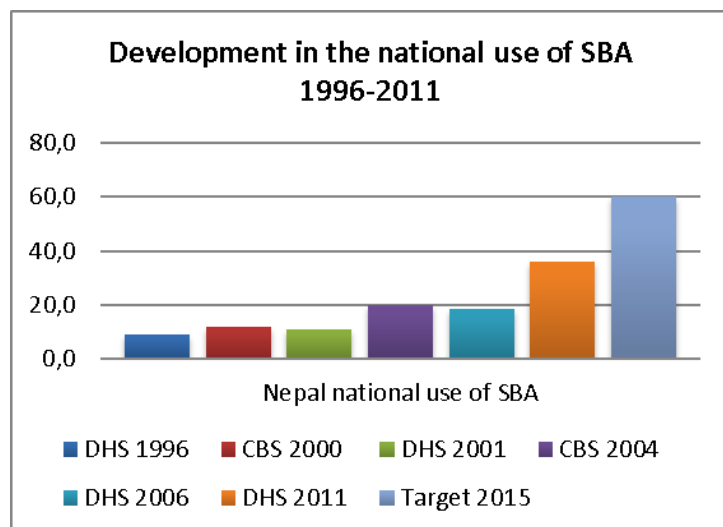


Figure 5-1 National use of SBA in Nepal 1996-2011 (Holst 2012, desk study compiled data by author)

### 5.3 SBA use and urban-rural differences

The urban / rural gap in use of SBA in Nepal is evident. The relative disparities have increased between 2006 and 2011 (fig 5.2), and over twice as many births are attended by SBA in urban areas compared to rural. In urban areas, 73% of the deliveries are attended by SBA, compared to 32% in rural areas (NDHS 2011).

Over ten years, from 2001 to 2011, the use of SBA in rural areas went from an extremely low 8% to 32%. This quadrupling is very interesting, and reasons for this development are explored in the following chapters.

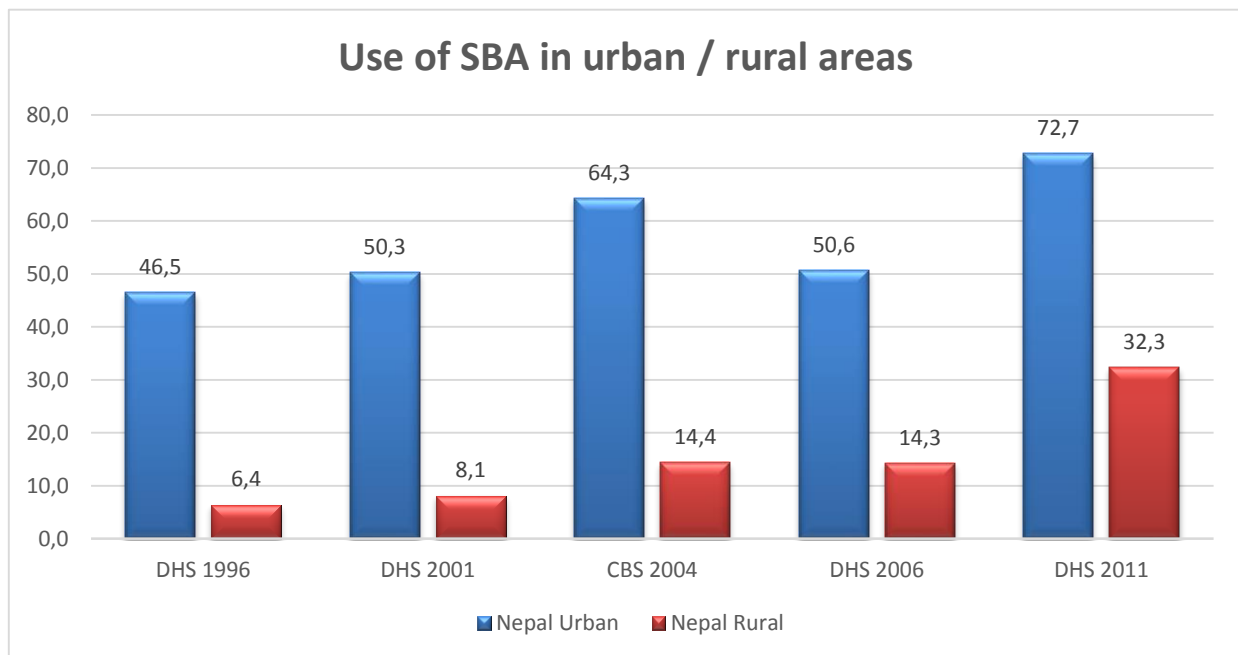


Figure 5-2 SBA use rural / urban in Nepal 1996-2011 (Holst 2012, desk study compiled data by author)

## 5.4 SBA use and development regions

The poorest development regions, Mid-Western (MWR) and Far-Western (FWR), have historically lagged behind the more urban populated regions – Eastern (ER), Central (CR) and Western (WR). However, the increase in use of SBA between 2006 and 2011 is significant. The MWR improved from 14% to 29%, and the FWR improved from 10% in 2006 to 31% in 2011. These are solid figures for

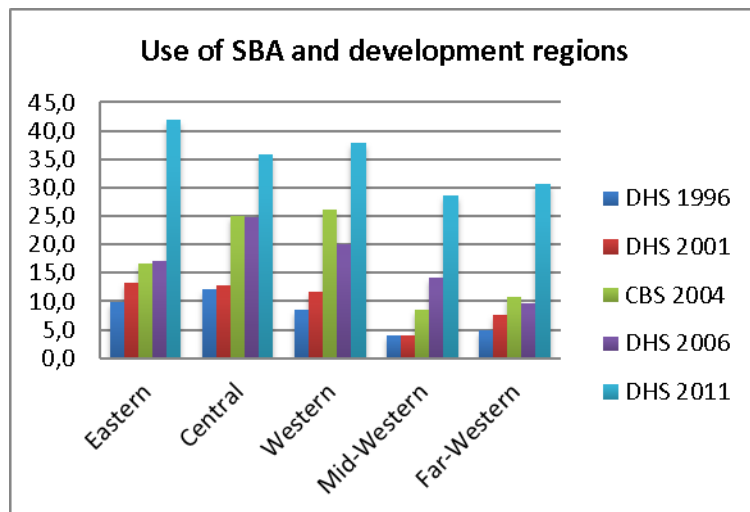


Figure 5-3 SBA and development regions in Nepal 1996-2011 (Holst 2012, desk study compiled data by author)

the increased use of the health care service. According to the last survey, the coverage in the ER was 42%, compared to 36% in CR and 38% in WR.

## 5.5 SBA use and ecological zones

The ecological zones are also experiencing an increase in use of SBA. The terai comes out with a much higher increase than the hills in the 2011 survey. In 2006 the hills had 23% coverage compared to 18% in the terai. Only a small part of the population lives in the mountain zone, which covers

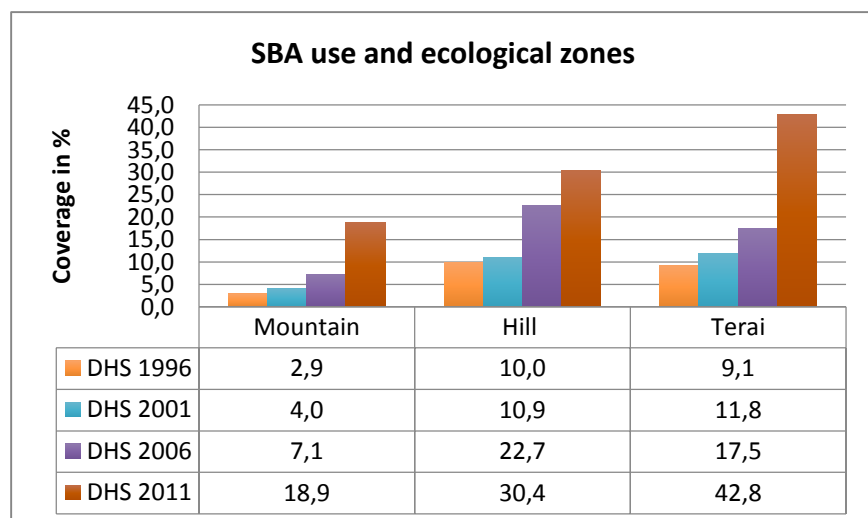


Figure 5-4 SBA and ecological zones in Nepal 1996-2011 (Holst 2012, desk study compiled data by author)

35% of the total land area and spans from 4,877 meters to 8,848 meters above sea level (NDHS 2011). “Because of the harsh terrain, transportation and communication facilities in this zone are very limited” (NDHS 2011:2).

## 5.6 SBA use and education

Perhaps the most striking illustration and gradient of the differences in use of SBA in Nepal is between the educated and the non-educated. In the latest survey 76% of the women with school leaving certificate or above used SBA during delivery. 53% of the women with some secondary used SBA, compared to 32% with primary school, and 19% coverage among the women without education. Many studies have shown that education is one of the major factors that contribute to health behaviour and attitude. In Nepal, there is an obvious correlation between education and the use of SBA (Fig 5.5), and even if the use is increasing among the non-educated, from 5% in 1996, to 19% in 2011, the gap between the numbers for the non-educated and the numbers for women with SLC (school leaving certificate) is clear. The data suggest that the higher the level of education, the increased use of SBA.

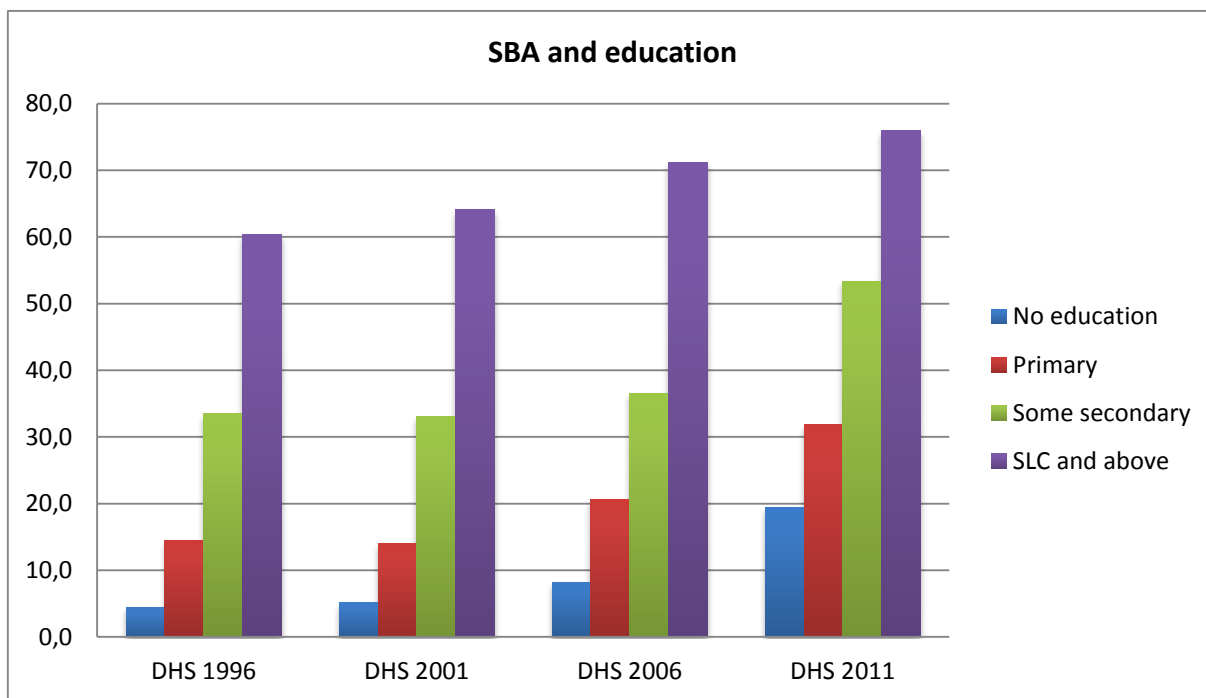


Figure 5.5 Use of SBA and education (Holst 2012, desk study compiled data by author)

## 5.7 SBA use and wealth

SBA use among poor / wealthy has only been measured in the past two surveys. While a low proportion of rural residents are wealthy (17%), the majority of the urban residents (62%) belong to the richest quintile (NDHS 2011). Less than 1% of the population in the mountains belong to the wealthiest



Figure 5-6 SBA and wealth quintile in Nepal 2006-2011 (Holst 2012, desk study compiled data by author)

quintile, while 23% in the terai, and 49% in the hills (including Kathmandu Valley) are likely to fall in the highest category (NDHS 2011). In 2011 over 80% of the deliveries among the highest wealth quintile used an SBA, while only 10% of the lowest used an SBA during birth.

## 5.8 Data quality and methodology of the surveys used in the quantitative study

When gathering the epidemiological data from WHO's SBA database "*as an initial means of obtaining a sense of the variance in the data*" (Silvermann 2007:110), I elaborated on variance in births attended with skilled personnel in the period between 1990 and the present time. The SBA-database contains the national proportion of births attended by SBA through time. This information is gathered from approved surveys.

The strength of this type of methodology and data is its complexity. Few other places have collected as much information. However, it is not certain that all the reported numbers in the databases are portraying a realistic picture of the situation. Sometimes the most recent gathered data is several years old. This could be a source of error and even obscure areas with severe increase or decline. Often the surveys have gone on for two to five years, thus I need to stress that the data from i.e. NDHS 1996 in my tables can be from 1992. In this thesis it is important to remember that the statistical numbers are not the most important but rather the trends of development are.

The household questionnaire and individual questionnaire in the surveys were utilized in Nepali and two other local languages, Maithhali and Bhojpuri. Many other languages are spoken,



and there may be people who do not speak Nepali well at all. This may exclude groups, and voices may not be heard.

A challenge can be that our data *"measures only the presence of an attendant, not the skills used or the enabling environment"* (Hussein et al. 2004:160).

Another challenge can be that the person who reports on the attendant after delivery (for example the father or father-in-law), may not know the background or training of the delivery assistant (Ahmed et al. 2010). Some may report that a health worker assisted the delivery and thus assumes that the health worker qualifies as SBA. These cases create pitfalls and misrepresentations of the actual truth.

In the surveys I went through and used as the foundation for my comparisons, the participants were asked to specify the person with the highest education in childbirth assistance. Normally the participants could choose from nurse, midwife or doctor when answering. In the surveys from the 1990s, the focus on SBA is less apparent compared to the surveys from 2000 and beyond. I spent quite some time adding the proportion giving birth with a nurse or midwife present to the proportion giving birth with a doctor in order to find the right parameter.

WHO's database shows the proportion of births attended by skilled health personnel in Nepal, with the reports from the Central Bureau of Statistics in addition to the Demographic Health Surveys forming the basis of the numbers for Nepal. However, the two surveys use different methodologies. In the 2000 survey, CBS uses the term "medically trained persons", which includes Health Assistant (HA), Auxiliary Health Worker (AHW) and Maternity Child Health Worker (MCHW), resulting in a proportion of 13% in 2000. In this thesis, I have extracted the proportion assisted by doctor and nurse/ANM from the number, hence adjusted downwards to 11.9%.

In the CBS 2004 survey, this was not possible, because the report uses the all-encompassing term of "health practitioner". This probably explains why the number for this particular survey

**Table 5-1 Definition of SBA in the surveys used**

Year	Survey	SBA
1996	NDHS	Doctor, nurse, ANM
2000	CBS	Doctor, nurse, ANM
2001	NDHS	Doctor, nurse, ANM
2004	SBS	Health practitioner*
2006	NDHS	Doctor, nurse, midwife
2011	NDHS	Doctor, nurse, midwife

is slightly higher than the NDHS-results of 2006. Health practitioner (in CBS 2004) includes Maternity Child Health Worker (MCHW), Village Health Worker (VHW), Auxillary Nurse Midwife (ANM), Health Assistant (HA), Senior Auxiliary Health Worker (SAHW), Auxiliary Health Worker (AHW), nurse and doctor (CBS 2004:103). In 2004, a new definition of SBA in the Nepaleese context was agreed upon, including only *“doctors, staff nurses, midwives and ANMs, provided they possess competencies in the core skills identified (...) with at least 18 months training in maternal and child health”* (MoHP 2006:2).

## 5.9 Summary of chapter

Spending almost three weeks on this first task at WHO, these self compiled statistics and figures in this chapter show how trends in the use of SBA move in Nepal. This chapter has shown that trends in use of SBA are increasing in Nepal. On a national level 36% of the births are being attended by an SBA. Target in 2015 is 60%, and this target may be too ambitious. The urban / rural use of SBA in Nepal continues to be disproportionate with 73% urban use of SBA compared to 32% use in rural areas. Eastern areas of Nepal has higher use of SBA than other areas , however the far-western region experiences a tripling in use from 2006-2011, and went from 9,6%-30,7% coverage. The use of SBA in the ecological regions have also increased. The terai has doubled its use since the past survey in 2006, and has now much higher use than in the hills. Use of SBA are strongly associated with education, and similar patterns are found between wealth quintile and use of SBA.

This chapter also include a brief discussion of the data quality of the surveys used to portray the trends. It is important to be aware of the different registration practices and methodologies of the surveys, and to be aware of pitfalls and misrepresentation when analysing the figures. A weakness with these surveys is that they do not measure the skill set of an SBA.

## 6 Variables influencing the use or non-use of skilled birth attendants in Nepal

### 6.1 Introduction

This chapter is built upon the literature study undertaken at the WHO and the experiences from Nepal. To give birth with an SBA is a modern medical phenomenon and a “western” way of assuring the safety of a pregnant woman. This may not be the case for all women in the world. People have different perceptions; for a poor woman, living in a rural area in Nepal, encountering an SBA could be an unusual or even frightening experience. There are no traditions for institutional deliveries in the country. On the contrary, home deliveries assisted by friends, family members or TBAs are common. This chapter will explore the factors affecting the use of SBA and present the structural barriers that impede use, according to the model presented in chapter 2. It is worth mentioning that the researcher can have different opinions on different *studies* and therefore emphasize the factors accordingly, in a way that not necessarily matches the reality. This chapter aims at getting a nuanced view on some of the most important variables that either enable or hinder use of SBA, thus to answer research question 2a:

- What are the major influencing factors and structural barriers for use of SBA in Nepal?

In chapter 2, the accessibility term is defined and discussed. Undoubtedly, this is a key aspect of this thesis. Many women do not have access to the health services provided for several reasons. Aspects of accessibility are discussed throughout this chapter, from infrastructure under geographic access and structural barriers, cost distance under income and financial barriers, availability under structural barriers to social accessibility under enabling factors like significant others, culture and ethnicity.

### 6.2 Predisposing factors

The first group of factors affect the persons behaviour. Geographic access may be one of the most important ones due to the ecological challenges in Nepal. Infrastructure appears to be a major problem for women in labour. This relates to the structural barriers, since the infrastructure after all is a governmental concern. A great part of the population lives in the hills and mountains,

where the roads can be very poor, and sometimes blocked by landslides, snow or mudslides. The long way to the health facility where maternity services are offered does not make it any easier.

In Dailekh, the hospital was situated in a small village, and the road ended here. But people lived further up in the hills, and the only way they could get to the hospital was by foot. An SBA working in the hospital explained:

*“When decision is made, then another problem arise, the road problem. Very “hilly”, very much up and down. When they make the decision perhaps they have to be carried for 10-12 hours, and this can be very difficult to manage”*SBA2, Dailekh

When I was traveling in Western-Nepal, I realized the extent of the problem, and I gained a greater understanding of why some expectant women may chose to give birth at home when the other option risks being stuck in front of a mudslide blocking the way where the only way around it is an unsecured 1000 meters down the mountain.

*“The problem is the rain season, accidents easily happens, and some women - when they come to the clinic, someone already gave birth on the way”* SBA2, Dailekh

When a mudslide or rockslide occurs, people travelling on the road have to remove the obstacle themselves. There is no tractor or excavator available– so out with the shovel (if there is any) to remove the dirt or rocks. The time spent before the bus or vehicle can continue depends on the size of the mud- or rockslide. For a woman in labour, hours could be critical or even fatal, especially if she gets stuck, the delivery starts, and complications arise, as even sterile water can be impossible to obtain. In many ways, travelling to the hospital involves an extra risk, especially over long distances and especially during the rainy season.



Figure 6-1 - Landslides and mudslides on the road from Surkhet to Dailekh (Holst 2012).

On the way from Surkhet, approximately five hours to Dailekh, I used the opportunity to stop in different small rural villages and households. I made informal interviews with two pregnant

women, both aged 22. The first one, pregnant with her first child, said she would walk to the closest health post nearby (approximately one and a half hour by foot) to give birth. However, she mentioned that she wanted to go for the last ANC in the regional capital to figure out if there were any signs of risk of complications. If so, she would have a relative drive her to the regional hospital. She told me that she had heard it was possible to request an ambulance from the nearby health post. The other girl, age 22, had no plans of going to the health post or the regional hospital. She said that there was no reason for her to go to the hospital without severe pain. However, she considered going to the health post if pain occurred. An SBA explained that in some cases, women have to be carried from her remote house, and to a place where transport can be organized:

*“The hospital may be too far away, and the conditions of the patient could be challenging, she may be sick, and it’s hard to travel far. Sometimes there is not any people to help the pregnant woman to go to health post or hospital.”* SBA2, Dailekh

In addition to the geographic access, there are other predisposing factors of significance. Age and number of children are two of these. Young women and low-parity women (women with fewer births) are more likely to give birth in a health facility (NDHS 1996; 2001; 2006; 2011, Dhakal et al. 2011) with an SBA present. Whether a woman is having her first, second or seventh child, number of previous births may affect decision-making when deciding place of delivery. This factor interrelate with the perception of own maternal health, discussed in 6.4. *“The perceived risk associated with first pregnancy may make women more likely to use maternal health care for first order than for higher order births”* (Sharma et al. 2007:688). Women with three children or more and older women are more likely to deliver at home without SBA (Dhakal et al. 2011). Also, when it comes to the use of ANC and post-natal care, the number of children matters: *“Number of living children showed a strong negative association with use of all types of maternal health services”* (Sharma et al. 2007:688).

In Surkhet, I met a poor woman with five children, and she explained that she went to the hospital to give birth the first four times but not the fifth. She lives very close to the hospital, so geographical access is not a barrier for her. The last time, she actually had to stay home during delivery, because she had no one to look after her other four children. She gave birth at home by herself. *“A higher number of children may also cause time and resource constraints for the family, which have a negative effect on health care utilization”* (Sharma et al. 2007:688). In the case

mentioned above, the mother of five in Surkhet, the number of children in her family made it more difficult for her to use SBA.

Awareness and knowledge of sources of care are crucial factors for use of health services. This factor interrelates with the enabling factor education. If people are not aware of the services, the services being free of charge, or the benefits of the services, undoubtedly, the service will not be used. An SBA explained that many rural women are not aware of services being free:

*“The main difficulties are the money. The second is the lack of awareness. People believe it is expensive going to hospital, not everybody are aware of the free services”* SBA1, Dailekh

Nepal is quite a big country, and when 88% of births occur in rural areas (NDHS 2006), it may take time to spread the word about both the benefits of using a SBA, and the financial incentives the government has applied. The innovation needs to be adopted by the population as referred to in the diffusion of innovation theory in chapter 2. Dhakal et al. (2011:377) recommends an *“intervention consisting of awareness programmes promoting delivery care”* and that this *“should be implemented targeting women, family, mothers-in-law, and husbands”*. Due to the lack of awareness, women deliver their babies at home and do not seek care until complications arise. Helfter (2009) argues that despite information about the various schemes being broadcasted on the radio and incorporated into brochures, more work needs to be done at the community level in order to increase awareness. Bhusal et al. (2011) concludes in their study on the effectiveness and efficiency of the Aama program that the lack of awareness of the incentives is likely contributing to mothers delivering at home. *“Major bottlenecks identified include awareness of the schemes and utilization of services, resulting in their underutilization”* (Adhikari et al. 2011). In their study, 40% of the mothers were not aware of the transport incentive.

During the interviews with primary and key informants in Nepal, the aspect of awareness especially among rural women was important for the informants. When I followed up asking how to increase awareness, two elements stood out: advocacy in the periphery and the use of volunteers. Advocacy is defined as *“public support for or recommendation of a particular cause or policy”* (Oxforddictionaries.com) and revolves around local and national media and more local activities that would capture attention. An informant explained her view of the use of mass media:

*“Advocacy in periphery level is another important aspect. Local newspapers, television may be difficult, but radio is accessible to everyone. Ads should be on radio, with local language. This creates awareness.”* SBA, Kathmandu

Sharma et al (2007) hesitates to link a positive effect of radio programmes and mass media exposure to the use of SBA, because other individual and household factors may serve as controls. For example if the household decision-makers mean it is not necessary to go to hospital, the radio programme is less influential than the significant others. In rural areas, maternal education activities are few. It may be beneficial to educate in ways other than through written materials and brochures. An SBA had good experiences with alternative approaches:

*“In the rural areas, small campaigning, acting and drama provided by government is good. Need more of this; very beneficial for patient, it increases use of maternal services.”* SBA2, Dailekh

Another informant emphasized the importance of making the information interesting to people by making entertaining moments out of the maternal education:

*“Health workers can use different channels like multimedia and different awareness methods; culturally we can go drama, puppet show, make it interesting for people. Electronically, also written materials like newspaper and brochures.”* Key informant, Surkhet

Sharma et al. (2007) argues that printed materials are normally available to health facilities and to health workers, but few are available to take home by the pregnant women, and problems further arise when rural people do not understand the message due to illiteracy. The authors argue that information education and communication activities should reach community members, TBAs and traditional healers through mass media. *“As a large percentage of deliveries are conducted by relatives, friends, neighbours and TBAs, these delivery attendants need to be well informed and encouraged to refer women to a skilled attendant or a health care facility”* (Sharma et al. 2007:687).

The use of volunteer health workers in the rural areas was highlighted by several of the informants. This group of health workers may not qualify as SBA, but they can still do an important job creating awareness, and informing about programs.

*“They also tell which time you need to see medical staff, what kind of nutrition etc. By doing this kind of information program, they want to make the patient feel safe, and ensuring them that this is not a costly thing, but they should come to clinic for further help.”* Key informant, Surkhet

Volunteers probably have a positive effect on rural women's use of maternal health services.

Culture and religious beliefs are important factors for health seeking behaviour. An example is the pollution that a delivery creates. *"In Nepal there is widespread concern that childbirth is a ritually*



**Figure 6-2 Operation theatre and patient bed in Dailekh district hospital**

*polluting event"* (Ahmed et al. 2010:33). The elements of pollution are, according to the same study, blood from delivery, the cord, the placenta and the baby, for various length of time. This is a religious belief where touching these items may offend the gods (Ahmed et al. 2010). In addition, the Dalit caste demands a person from a lower caste to cut the umbilical cord, otherwise they will fall into the lower caste themselves. Ahmed et al. (2010) argues that this can interfere with a decision to undergo the delivery at an institution. A key informant argued that religious leaders may have deep impact in the society, and if they changed their perception of the women, the society would follow:

*"And also, this is very important, to change the mind set of religious leaders – because so many things are associated with our religion where women are like a second degree citizen"*. Key informant, Kathmandu.

The same informant argued that the concept of Nepali women's role needed to change:

*"The most important thing is to change the law, the mind-set, our religious mind-set, the perspective that girls are less valuable, the whole system of girls growing up, they have to marry and to live in other peoples house, that whole concept have to change."* Key informant, Kathmandu

While interviewing I did not get very much solid data on the religious factors affecting the use of SBA, but I got the impression that rather family traditions within the community and households apply. This again interact with significant others, discussed in the next subchapter.



Traditions play a role, and the pregnant woman risks being confronted with breaking family traditions if she decides, for example, not to use the family's or community's TBA that perhaps has been used for generations. According to a key informant, things are changing in Nepal:

*“The last 35 years I have seen a lot of changes. Before we had so many religious cultural practices in Nepal as for example the women had to go to the cow shed during menstruation and after delivery. That has changed a lot – through advocacy via media and the government also, so now the regions that used this practise are not doing it anymore”*. Key informant, Kathmandu

*Ethnicity* (or caste) may affect the use of health services. Dhakal et al. (2011) points at increased use of institutional deliveries among women from the Brahmin-Chhetri ethnicity ("high caste") and the lower likelihood for women from the Tamang ethnicity ("low caste"). Tharu and Muslims are also groups that traditionally have low use of SBA. Ahmed et al. (2010) argues that Dalit women ("low caste") having concerns of possible caste discrimination, and that this can contribute to their decision not to seek out health facilities and SBAs. This again may contribute to negative assumptions about the hospitals staff and even cause several women not to approach the hospital any more.

The pregnant Dalit women I spoke to in Birandrenagar were both going to the regional hospital to give birth. However, the hospital was very geographically accessible for them – only a ten to fifteen minute walk away. When I asked if they hesitated to go, they gave me the feeling that it was very normal for their group to go to hospital and that they felt safe and comfortable doing it. Overall, none of the informants emphasized ethnicity as a factor contributing or hindering use of SBA.

Attitudes toward institutional delivery and use of SBA are the final predisposing factors discussed in this thesis. According to the diffusion of innovation theory, discussed in chapter 2, the person who adopts the innovation, need to first be aware of the innovation. Second, the person forms a favourable or unfavourable attitude towards the innovation, before the person adopts or rejects the innovation. The perception of the services, hospitals (or posts, clinics etc.), staff and generally the entire health care system affect the use. This can also be connected to the culture aspect, as discussed in the theoretical part. For instance, men dealing with deliveries can be viewed as unsafe for many women (Ahmed et al. 2010). An informant explained that if a woman experiences patronizing behaviour from health workers, or other bad experiences at the health facilities, she may hesitate to return. An SBA gave me an explanation on how this happens:

*“Governmental hospitals are overworked, and sometimes we cannot give proper care to our patients. Bad experience may lead to the next delivery being at home. The government have to think of the number of staff. They have to monitor the pattern of increased institutional deliveries – because this also affects the staff. If we were more people here... The workload has increased. Yesterday I had many woman in labour pain, what kind of care could we provide with too few doctors for 24 hours on call? And with 30% caesarean section, normal cases, and serious cases? Makes working pattern difficult.”* SBA, Kathmandu .

The attitudes towards institutional deliveries will be affected of the quality the patient experiences when using the service. When services become more popular, the number of staff need to increase in order to provide sufficient care. This aspect interrelates to the structural barrier regarding the human resources situation among SBAs in Nepal, and is discussed in 6.4.

### 6.3 Enabling factors

This group consists of forces that either facilitate or impede use of SBA.

Primarily, *significant others* have a very different role in Nepal, than in the global north. Nepalese women depend on their husbands or other family members for their health and well-being. A low level of women’s autonomy contributes to poor maternal health utilization (Sharma et al. 2007), and their low social status is hindering the realization of national health and population policy targets (Tuladhar 1997). An informant explained it very easily:

*“She may not be able to go to health centres, because ... she is not allowed by her family, mostly by husband or mother-in-law”* Key informant, Kathmandu

Significant others are therefor interrelated to women’s autonomy and decision-making power. Thapa and Niehof (2013) point at several separate but independent dimensions of women’s autonomy: Knowledge-, household decision-making authority, movement-, economic- and emotional-autonomy. Knowledge autonomy concerns how the woman is exposed to education and the outside world; household decision-making authority regards the woman’s ability to have the final say and if she is able to make her own decisions regarding her own health. Movement autonomy deals with the freedom and the interacting with others; economic autonomy is to what extent the woman possesses control over economic resources; and finally emotional autonomy regards the freedom from the threat of violence and abuse. An SBA in Surkhet explains:

*“Mother-in-law decides or husband. Pregnant women take no part in decision-making. Husbands always have to consent and make the decisions. Women always have to ask. When we do family planning, women always have to ask their husband before accepting contraception. They say, I don’t know, I need to ask my husband. Also, the whole family, like mother and father-in-law, decide more than a women.”* SBA, Surkhet

Thapa & Niehof (2013) argue for increasing the role of husbands within the area of maternal health, which has traditionally been considered women’s business. However, seeking involvement from the husband may limit the woman’s autonomy, and conversely, autonomous women may not seek their husbands’ involvement (Thapa & Niehof 2013).

The use of health services by women in Nepal varies by the woman’s level of empowerment. In NDHS 2001, attention was aimed at three indicators to measure empowerment: participation in decision-making, the woman’s attitude towards refusing sex, and her attitudes toward wife beating (NDHS 2001). *“In the case of Nepal, there is little variation in the utilization of reproductive health services by women’s decision-making autonomy. However, there is a positive relationship between utilization of reproductive health services and women’s empowerment as measured by her attitude towards women’s ability to refuse sex with their husband”* (MoH 2002:153). In NDHS 2006, one third of the women asked reported that her husband makes all decisions regarding the woman’s health care. A crucial aspect of this point is the decision power of women, especially in rural settings. The mother-in-law or husband normally decides whether it is appropriate for a woman to seek help during labour. I asked an SBA working in the rural areas why she believed the use of SBAs was so low in this area. She gave me the following answer:

*“Because, especially pregnant women they are suppressed in rural areas. They don’t have power to go to the health facility. They do not have any rights to go to hospital. They have to depend on other family members, for example, husband and mother-in-law.”* SBA, Dailekh.

With the feministic perspectives included in the theoretical approach of this thesis, it is possible to argue that many women live not only within patriarchal, but also matriarchal traditions. These women live traditional lives, with limited empowerment, and they need to consider the risks of being excluded when opposing heads of the family. All informants mentioned mother-in-law as a factor that would prevent the woman from seeking SBA. The fact that the mother-in-law successfully gave birth at home would not make it easier for the pregnant woman:

*“Not only awareness problem, but also awareness in the family and with the family members, mother-in-law may have given birth at home, and recommend the traditional way, and it worked fine.”* Key informant, Surkhet

Several informants point at this having nothing to do with religion:

*“It may not be the religious beliefs that prevent women from going, but sometimes the discrimination from home – the mother-in-law says I never went to hospital for delivery, why should you go? Not religious beliefs, but more a social phenomenon”.* SBA, Dailekh.

This statement confirms the importance of the social structures within the families, and how these structures creates traditions and norms that affect motivation and behaviour for the pregnant woman.

Recently laws have changed in favour of women in Nepal. The abortion law from 2002 has probably helped to liberate women’s role to a certain extent. However, it seems there is a long way to go before this reaches everyone in the periphery:

*“Their situation within families and society are second degree, so women eat last and they eat least. They work very hard, sometimes 12-14 hours per day, and because of that they will get negative impact of their health.”* Key informant, Kathmandu.

When interviewing the SBAs I got the feeling that they were optimistic, and that they had seen great progress on many areas during the past years. Still, giving birth with an SBA may be perceived as an innovation, and need time to mature, especially in rural areas. A factor included in the accessibility term is the *social distance*, in terms of sociocultural and socio-economic aspects. This could be comfort and acceptance in using the service, for example preference for TBA instead of SBA. An informant explained an example of social distance:

*“Sometimes women hesitate to go to a health worker, because they do not want to open up about their problems. She has never been exposed to a health worker before. She has only done work inside in her house. She feels shy. First is the economic problems – they do not have enough money to get to hospitals. Second is the shyness – other people will see what they will do, and have opinions about them”* Key informant, Surkhet

Income is another enabling factor that affects use. In chapter 5, we saw how the use of SBA was distributed across the wealth quintile. The more wealth in the household, the more use of SBA. Low income do also interact with low education, remoteness and low geographical access. In Birendranagar, the regional capital of Surkhet, I visited a small settlement by the river. The

residents were Dalits, and the two pregnant women I spoke to were working as stonecutters, and would have belonged to the category of urban poor people. They were both going to the regional hospital to give birth, and they were well aware of the free maternal services.



**Figure 6-3 Dalit settlement in the regional capital of Surkhet, Birendranagar**

Even though the Dalits I met were going, many of the informants explained that pregnant women, would not go to health care facilities because they were poor. According to Sharma et al., household income shows a strong association with use of maternal health services. The paradox in their study “*is that employed women, irrespective of their type of employment, were less likely to utilize maternal health services (2007:688)*. This may be explained by the fact that non-working women may be better off than working women.

Even if services are free, the cost of going to hospital exists in terms of loss of income, care for the children while the mother is away etc. One of the girls I met in Ratananga, the one who planned not to go to hospital, lived five hours walking distance to the closest health post, and her husband worked in Surket. While he was away, she was the one that had to milk the cows and sell the milk, so if she went to the hospital, the family would lose income. She had already delivered two healthy babies at home, only assisted by family members.

Participation in decision-making is highest among women in the highest wealth quintile and in urban areas (NDHS 2006). These two factors are related to each other, in addition to education, which also interact with both of them. In many studies, they go hand in hand: income, education, decision-making and urbanity.

In terms of *education*, deliveries in health facilities rise sharply with maternal education (NDHS 1996; 2001; 2006; Karlsen et al. 2011). “*Studies have shown that education is one of the major socioeconomic factors that influence a person’s behaviour and attitude. In general, the higher the level of education of a woman, the more knowledgeable she is about the use of health facilities, family planning methods, and the health of her children*” (NDHS 2011). Urban mothers have more education than rural ones and live where SBAs are more available (NDHS 1996; 2001). An informant had an idea on how to approach the problem:

*“Health education in school will increase awareness with rural people. We have to involve the other community leaders, volunteers, and yes, of course skilled resources like students and others.”* SBA, Dailekh

Education in the rural population is a critical factor. Dhakal et al. (2011) suggests that, in addition to education and occupation of women, education and occupation of their husbands are linked to outcomes in use of SBA. The higher the education level and job skill level of the husbands, the more likely delivery will occur in a health care institution (Dhakal 2011).

The Sharma et al. study confirms that education is positively associated with maternal health service utilization. “*The strong positive association of women’s education with all three maternal health services may be because of educated women’s greater decision-making power on health-related issues*” (2007:688). The authors further note that education likely enhances female autonomy and contributes to decision-making regarding one’s own health.

There is a positive relationship between education and decision-making power (NDHS 2006), as well as education creating higher income. Urban women are more likely than rural women to make decisions regarding their own health (NDHS 2006).

The place of residency, the urban versus rural aspect, is essential in this thesis, as this affects the use of health care services to a great extent. Urban women are much more likely to give birth with skilled attendance than rural women (NDHS 1996; 2001; 2006; 2011).

*“A child born in an urban area is six times more likely (45 percent) to be delivered at a health facility than a child from a rural area (7 percent). Children living in the mountain ecological*

zone are less likely to be delivered in a health facility than children living in the hill and terai zones." (MoH, 2002:147). The urban / rural aspect is strongly related to geographical distance. Living in or near cities means hospitals and clinics will always be more accessible (distance-wise) and available (opening hours), also for poorer women. It is not too far to go, nor it is hard to get back home again.

*Availability of transport* is the final factor among enabling factors. The challenge of the geographical landscape in Nepal makes availability of transport a major factor for use of health care services. If the family possess a vehicle (unlikely in poor rural areas), this factor is contributing to use of SBA. The lack of transport is a huge barrier and is further discussed under structural barriers.

#### 6.4 Need of health services

The need of an SBA will be determined either of the perception of own maternal health or from the provider, for example during an ANC. This again may be modified by other factors, for example significant others, in relation to their traditional beliefs and practices. The perception of own maternal health may vary from woman to woman. In the NDHS 2006, women were asked about why they gave birth at home, and 73% reported that it was not necessary to go to the hospital to give birth. In the Bhusal et al. (2011) study, 55% of the surveyed women went to health facilities during labour pain, but only 2% visited health facilities before pain started. When I interviewed the pregnant women, I experienced that they had a different relationship to the labour pain than I was used to hear. The women emphasised that pain was normal, but they explained that they would know themselves when the pain was due to a complication. If the birth proceeded with normal pain, there was no reason to go to hospital. *"Women who have had more children may tend to believe that modern health care is not necessary due to the experience and knowledge accumulated from previous pregnancies and births* (Sharma et al. 2007:688). They know what is about to happen, therefore, women may give birth at home because it is more easy and convenient (Dhakal et al. 2011).

In the Nepalese context, local participation in both improving health services and health improving activities, together with increased contact between health systems and communities can stimulate demand for health services (Morrison et al 2011). In the latest survey (NDHS 2011) approximately 60% of the pregnant women in Nepal received ANC from a skilled provider. Some

studies argues that a positive relationship exists between ANC and institutional deliveries (MoH, 2002; Dhakal et al 2011; Sepheri et al. 2008). During the ANC it is possible to predict some normal complications, for example whether the mother is carrying twins, or if the position the foetus would have through the birth canal is abnormal. Normal complications like the breech or transverse lie will most likely be discovered during an ANC. Signs of complications may contribute to health seeking behaviour, and adverse obstetric history may be associated with a higher use of institutional delivery (Dhakal et al. 2011). Other pregnancy diseases, like preeclampsia or gestational diabetes are easy to discover, and require monitoring during the pregnancy. In Nepal, the number of antenatal consultations may also matter for the use of SBA during delivery (Dhakal et al. 2009). In 2001, institutional deliveries were approximately five times more common for the proportion of women (40%) who had all the appointed (four) ANC than the proportion of women (8%) who had fewer ANCs (one to three) (NDHS 2001). When the pregnant women attend the four ANCs, she is entitled to a small cash incentive of NRs 400 (approximately 4 dollars). The ANC program could contribute to knowledge creating activities about the benefits of giving birth with a SBA. The ANC may be an important arena for distributing information about the financial incentives provided by the Aama program. This is discussed in chapter 7.

## 6.5 Structural barriers

On of the most prominent structural barriers worldwide, but especially in the global south, are the financial barriers to use of health services. Almost all of the informants explained that financial barrier impeded use of SBA, regardless of services being free.

*“She may not be able to go to health centres, because she does not have money.”* Key informant, Kathmandu.

Higher *financial costs* are associated with institutional deliveries (Dhakal et al. 2011). The the Aama-program, discussed in chapter 7, was implemented to address financial barriers in accessing maternal health services. Bhusal et al. (2011) concluded that the program would be effective and efficient when addressing financial barriers within maternal health services. However, the authors emphasise that awareness of the free services, both transport and delivery care, needs to be distributed on the community level, preferably among mother groups, FCHW and local NGOs. My experiences after interviewing the pregnant women in rural areas, was that they may have heard about the free services, but was not sure, and was definitely not aware that



incentives were given for both transport, ANCs, and that institutional deliveries was free of charge. Another informant explained further:

*“Many women have knowledge and information about the free services, antenatal check-ups and delivery in hospital, but they are not sure how to get there. It may be far away, and they worry about the money, and perhaps they do not believe in the free services. They use long time to make decisions, thinking; how to get there? The patient is confused they don’t have the money, who to call for help, which hospital to go to, and all of decision delay.”* SBA, Dailekh

Even if women are provided incentives for transport and deliveries, Bhusal et al. (2011) found that one fifth of the mothers asked in their study spent money during their delivery process, as tips for hospital helpers and cleaners.

Time is another important barrier for the use of SBA. Under this term we find barriers like waiting time, lack of infrastructure and availability of transport. When a women who lives in a remote place experiences pain prior to delivery, she may want to seek an SBA. In order to reach the SBA, that perhaps is deployed in the nearest sub health post, she has to walk through the woods to reach the road, she may need to wait for the ambulance, and when she reaches the birthing facility, she may need to wait even longer. One of the informants explained it very easy when I asked her about the main barriers in use of SBA:

*“If there is no road, when the woman needs to go to the health centre or hospital, she is not able to go. So when I look at that, I always think that the most important thing is to put much emphasis on the roads.”* Key-informant, Kathmandu

Before I went to Nepal, I did not quite understand the extent of the term “poor roads”. I went there during the rainy season and really observed and experienced the problems. The plan was to travel from Nepalgunj, in southern west-Nepal, by bus for approximately five hours to the first destination, the regional capital Birendranagar in Surkhet, and after three days leave for the more remote Dailekh, another five hours north. To see with my own eyes the challenges a woman on the way to the hospital has to face was striking. These observations made me understand the delay in seeking care. An SBA working in rural areas explained:

*“The ambulance service is there, but there is a lack of roads. Sometimes pregnant women travel for days, sometimes they walk for 6-7 hours”* SBA1, Dailekh

Travel time can be measured in hours, even in days, and this is most applicable in the rural areas. Bhusal et al. (2010) concluded that lack of transportation hinders institutional delivery and

that it may take hours for women in the mountain districts to gather people and transport the mothers to health facilities. Dhakal et al. (2011) points at the transport to and location of the health facility as being the real problems when accessing skilled birth attendance.

Organizational barriers regards how the health system is organized. In Nepal, most people reaches sub-health posts or health posts as their first contact with the health care system. Availability of services and opening hours may be barriers when accessing a health care service. I was explained that several women in rural areas gave birth at home because labour started during the night. When I asked if the nearby health post was not open at night, they told me it was unlikely, because only one ANM was working there. Many clinics are left without any staff for days. Imagine walking for hours with labour pain to find an unstaffed health post, with no SBA present.

*“Many times awareness is there, but it is like 4-5 hours walking distance. Perhaps she will go there, and there will be no persons there – no midwives or nurses, that is why they hesitate to go there.”* Key informant, Kathmandu

The government try to provide round the clock services for every woman in need. This appears to be very hard, due to shortage of staff in the remote posts. An SBA explained:

*“Nurses and other SBAs want to work in the cities, they want to live the modern life”* SBA, Kathmandu

Shortage of staff and training capacity is a bottleneck in the SBA provision. A key in this aspect would be to find staff that have a personal relation with the area they are deployed in. The Dhalak et al. study (2011) points at the scarcity of SBA in the communities being a main barrier for the use of skilled attendance in Nepal. Trained staff prefer to work in urban areas, but local people with sense of home place could be trained to inform about rights to maternal services and benefits of these. An SBA working in Dailekh points to the importance of this:

*“Sometimes people come as volunteers to speak and provide training for both staff and patient, only for short time, but not enough, need more volunteers, need more training. Need staff to stay there longer. Sometimes the volunteers visit small villages and train others to a basic level of delivery skills”* SBA2 Dailekh

It is hard to retain staff in rural areas. Ahmed et al (2010) found that staff feels the large proportion of vacant positions inhibits availability of the services. When few staff members are on duty, the services become vulnerable. Barker et al. (2007) suggests a HR-strategy with career

paths to encourage skilled staff to stay in governmental service. Rotation schemes, incentives and other benefits may hold on to the staff in the most remote areas.

Home delivery could be perceived as much easier and less expensive than institutional delivery. The whole family can assist, provide appropriate food, give massages and the women can use the desired delivery position without being screamed at from health staff (Ahmed et al. 2010). Bad experiences may also impede the use of SBA:

*“Also, when a woman had a bad experience, she will not go back to hospital. Bad experiences can be health workers attitudes, bad facilities, bad equipment, not prompt service, no doctors available. SBA, Surkhet*

Mothers with bad experiences from the health care system obviously hesitate to go back, perhaps telling friends about the bad experience, who may then not go either. If the perception of bad quality, such as a lack of clean rooms, beds, and delivery tables, takes place, this will affect the trust in the relationship between the mother and the health care facility (Bhusal et al. 2011). In addition, the experiences of user-friendliness, feelings of being respected, and attitudes of health workers can affect the perceived quality from the moment the woman approaches the hospital to the moment she walks out of the door. Negative views of the health facility can be: *"the cost, associated gender issues that arise, lack of staff experience, shortage of medicines, and perhaps most importantly, the behaviour of the staff -- imposed restrictions on family presence in the delivery room, criticism of food provided to the mother, perceived lack of sympathy, and more"* (Ahmed et al. 2010:31).

## 6.6 Summary of chapter

This chapter aimed to identify and study the influencing variables to the use of SBA in Nepal. Furthermore, it confirms that both predisposing and enabling factors, together with structural barriers are affecting the use. Difficult geographic access, lack of awareness of sources and care in addition to culture and religious beliefs are the most prominent predisposing factors that may hinder use of SBA. Low parity women and older woman are more likely to use SBA, than women with several children tend to think it is not necessary to travel to a health facility to give birth. Significant other family members, low autonomy, and decision-making power are enabling factors that contribute to low use of the service, especially in rural places. Income and education are enabling factors strongly affecting use of SBA, the more education and wealth, the

higher the use. Availability of transport is the final enabling factor that interrelate with the structural barrier time. This barrier relates to poor infrastructure, roads and the waiting time before the pregnant women get the help she is entitled to. Financial barriers are pressuring despite the free services and organizational barriers as opening hours occur. The final barrier discussed in this chapter is the organizational HR-situation, with attention to the shortage, retention and training of staff.

In the next chapter a document analysis is conducted to explore how the government has met the most pressuring structural barriers.

## 7 Strategies and interventions to increase use of skilled birth attendants in Nepal

### 7.1 Introduction

This chapter relates to the SBA policy aspect in the model presented in chapter 2 and presents the findings from the second stage of the desk study at WHO, Geneva. It aims to answer research question 3a):

- What are the most important SBA strategies and interventions implemented from the government side in order to meet the goal of 60% coverage in 2015?

The aim of the document analysis was to explore the chronological development and major steps towards the "on-track classification MDG5" (WHO 2012a) and the increase in utilization of SBA in the period 1990 – 2012. The table below shows the a brief summary of the milestones in the timeline from 1991-2011.

**Table 7-1 Important milestones in reducing MMR and increasing SBA in Nepal (authors own compilation)**

1991	"Safe motherhood" endorsed as a priority in 1991 Health Policy
1994-1997	First plan of action on safe motherhood
1998	Reproductive health strategy
2002-2017	15 year plan of action safe motherhood (revised 2006)
2002	Abortion legalized
2005	The Equity and access program (EAP)
2005	Maternity Incentives Scheme introduced (Later called Safe delivery Incentive Programme (SDIP))
2006	National Policy on Skilled Birth Attendants Reproductive health is declared a human right in Nepal
2007	In-Service Training Strategy for Skilled Birth Attendants
2006-2017	National safe motherhood and new-born health - long term plan
2007	Three year plan, provision of equal opportunities for quality health care services
2009	"Aama" Programme": Delivery services were declared free by the GoN in all public-sector health facilities and partner health facilities
2009	Pre-Service Education Strategy for Skilled Birth Attendants
2011	HR-resource strategy

## 7.2 Safe motherhood

In the beginning of the 90s, (1991) *Safe Motherhood* was endorsed as a priority in health policy, followed by the 1993 *National Safe Motherhood Plan of Action* (1994-97). The national Safe Motherhood Policy was formulated in 1994, placing an emphasis on strengthening maternity care at all levels of health care delivery, including at the community level. The policy aims to strengthen technical capacity of maternal health care providers, at all levels, through training, deploying and offering personnel for each level of maternity services (MoHP 2006). The basic principles of National Safe Motherhood Program were "*creating awareness at all levels [and] building up the local capacity in dealing with three delays – delay in seeking care, delay in reaching care and delay in receiving care*" (WHO 2003:22).

The period between 1990 and 2001 in Nepal seems to be characterized by planning, preparation and policymaking regarding maternal care. Ensor et al. (2008) argues that skilled birth attendance eventually became a major issue in 2001, followed by research and policy implementing on a national level in 2005. In the National Safe Motherhood Plan (NSMP) (2002-2017), the emphasis on SBA is much more evident. Verifiable indicators and objectives are listed:

*"Increase in % of deliveries by skilled attendants from 12.7% in 2001 (NNDHS) to 40% by 2017"* (GoN/FHD 2002:4). Here are also objectives for 2006 with 18% coverage and 23% in 2011. Now, the surveys show that these objectives were achieved, in 2006 the nationwide use of SBA was 18,7% and in 2011 36%. With other words, these early objectives were realistic, and was attained. The plan also aims at establishing comprehensive emergency obstetric care (CEOC) in all 75 district. As of May 2012, there were 133 CEOC sites in Nepal, but for example in the Far-Western region, it was 7 CEOC sites, and the region contains nine districts (MoHP 2012c).

The NSMP focusses increased access for all types of maternal health care. Increased equity and availability of quality maternal health services together with legal and social status for women in Nepal are outlined as priority issues. Activities to achieve the goals are also identified, for example to advocacy to enforce favourable current and new laws, education for girls, age of marriage and raising status for women. In this plan, the numbers of functioning HP and SHP with SBAs are also quantified.

As a strategy to meet the need for SBAs, maternal and child health workers (MCHW) who had completed a 15-week course in maternal and child health were offered a 6-week refresher course in midwifery skills (Carlough 2003) to become SBAs. This was before the criteria for defining SBA in Nepal were agreed upon in a UNFPA regional workshop in Dhulikhel in 2004 (MoHP 2006). In this meeting, it was agreed upon that SBA includes only staff nurse (3 years), auxiliary nurse (if competent in core skills and received 18 months of training in midwifery skills), doctor and midwife, as mentioned in chapter five. This may have created dissatisfaction as many MCHW experienced to be deprived their title as SBAs.

In NSMP 2002-2017, one interesting sub-activity is listed under "*Output: Equity and availability of quality maternal health services: Provide support for transport*" (GoN/FHD 2002:2). This is probably one of the first stages of the *Aama program*, as stated in the introduction of the plan: "*In order to overcome the second delay in reaching care the government is advocating for community mobilization for transport arrangement and is also trying to empower community, families and women both economically and socially to access care*" (GoN/FHD 2002:2).

A HR-strategy is also launched in NSMP, including "*number of skilled personnel trained and retained*" as the indicator. The document also states the need to develop a national SM strategy. This could be the precursor to the National Policy on Skilled Birth Attendants (2005).

NSMP 2002-2017 was revised in 2006 to include aspects not covered in the original plan. The revised safe motherhood and neonatal health long term plan (SMNHLTP 2006-2017) includes a national policy on SBA and an equity and access program to ensure access to the most needy women.

### 7.3 Maternity incentive scheme

In 2005, GoN introduced the first part of what later would be known as the *Aama Surakshya Karyakram* (*Aama program*). *Aama* means mother in Nepali. The maternity incentive scheme (later renamed to *Safe Delivery Incentive Programme (SDIP)*) aims to reduce financial costs for women through a safe delivery incentive (Adhikari 2011), meaning that the poorest women and women from socially excluded and marginalised groups could get support if they decided to give birth at a public health care facility. The transport incentives give women cash refund dependant on residency: 1500 Nrs (approximately 21 USD) for travelling from the mountains, 1000 Nrs for

travelling from the hills and 500 Nrs for travelling from the Terai. Later these incentives were offered to all women.

#### 7.4 National policy on skilled birth attendants

When the government introduced the national policy on skilled birth attendants in 2006, the MMR was high: 539 per 100.000 live births. The government acknowledged that the high MMR was "*largely due to the lack of skilled attendants at birth, as well as poor referral systems and lack of access to life-saving emergency obstetric care when complications occur*" (MoHP 2006:1). The policy acknowledged that the initiative to train MCHW and ANM during the '90s did not have the expected outcomes. The document confesses that there was a lack of adequate training, the training was not competency based, and that this, among other things, resulted in the MCAWs and ANMs not being able to provide quality emergency obstetrics, especially during life threatening complications (MoHP 2006). During this time, health personnel attended only 13% of births, and not even all of these personnel qualified as SBAs. The policy recommend a target of 60% use of SBA by 2015, and call this target realistic, practical and achievable (MoHP 2006). The aim may be too high, however, looking at the latest measures from NDHS 2011, the increase between 2006 and 2011 is solid.

The SBA policy is linked to other national policies such as the national policies and strategies of National Information, Education and Communication (IEC), which emphasize partnerships with communities, "*which are vital for implementation of the SBA policy*" (MoHP 2006:3).

The SBA policy focuses on short-, mid- and long-term visions and strategies but stresses the "*rapid expansion of accredited SBA training sites*" (MoHP 2006:5) with a focus on quality training. The strategies have no particular deadlines to be reach, but are identified with long-term vision. Perhaps the most critical strategy is mentioned as the first: Human resources development. This strategy aims to increase the numbers of SBAs nationally. The short term goals are to review and update the existing refresher and midwifery courses. From now on, every course must contain the revised curriculum of core skills for SBAs developed by the WHO, ICM and FIGO in 2004. The medium-term goals are to review the ANM courses and restructure these into two-year programs, and update medical doctor (general practitioners) courses to also include core elements of the SBA skills. The long-term goals within the HR-situation are to initiate a new cadre of



professional midwives, *"providing service and leadership in midwifery for the country"* (MoHP 2006:7).

The second core strategy in the policy regards the training sites. A new process of accreditation will be initiated for all existing training sites. The policy also mentions a desire for rapid expansion of new training sites.

The third strategy in the policy deals with the deployment and retention of SBAs, as each HP is supposed to have two ANMs and a staff nurse, and two ANMs for each SHP. To ensure around-the-clock provision of delivery services, the policy addresses additional requirements for local SBAs. Strategy four addresses the service provision, and the National Standard and Protocol is introduced in order to create a referral system when complications occur. The fifth strategy emphasizes the enabling environment: the SBA need strong referral back-up by the district health organ - also to supervise. Therefore will a birthing facility be added to appropriate HP and SHP.

The sixth strategy addresses the role of professional organizations and associations, calling for a system of quality assurance, performance review and capacity building to be developed with these organizations / associations and MoHP. In strategy seven, NGOs and the private sector are encouraged to establish hospitals and centres that could be used as midwife led training sites. The final strategy in the SBA policy deals with the institutional arrangements and attempts to allocate responsibility for the different areas and parts of implementation. FHD is highlighted as the focal divesting for safe motherhood. MoHP will take the lead role in the HR-management, while National Health training centres will take the lead role for SBA human resource development.

Summarized, the policy have concrete strategies, although the objectives may be vague and hard to measure, especially due to the use of "long-term vision" instead of concrete time limits.

## 7.5 National In-service Training Strategy

In 2006, the government introduced the National in-service training strategy for skilled birth attendants 2006-2012. This strategy sets out approaches and outlines phases that are in line with the SBA policy from 2006 (MoHP 2007). The following objectives are stated in the plan: utilize training approaches to train eligible staff, strengthen and accredit existing SBA-training sites, provide the training to all eligible government employed doctors, staff nurses and ANMs by 2012, and assess eligible newly recruited staff from the mentioned groups to provide required

competency based training (MoHP 2007). There is also a note in the document that says the government aims to train and recruit SBAs to meet the MDG of 60% coverage by 2012, allowing some time to adjust in the beginning of the utilization. The training strategy encourages NGOs and the private sector to contribute to the MDGs through private public partnerships. In the key elements of the training strategy, the need for SBAs in the three ecological regions is quantified. Because of the variation in travel time and population density across the country, Nepal has moved at a reasonable speed towards the WHO standard of 175 births per SBA per year. The strategy specifies the ratio needed as one SBA for every 50 expected pregnancies per year in the mountains, for every 100 expected pregnancies in the hills and for every 150 expected pregnancies in the Terai (MoHP 2007). The total numbers of SBA required by 2012 to meet the MDGS are quantified in the strategy; a total of 7623 SBAs for 100% coverage of SBA-services, and 4573 SBAs to train in order to achieve 60% coverage in use of SBA. In the annual report 2067/2068 (2010/2011) it is stated *“Since the in-service SBA training was initiated in 2007, a total of 2535 SBAs have been trained and 27 doctors are trained in advanced SBA training”* (DoHS 2011:64). This is indicating that the number of required SBAs is hard to reach, and that other incentives need to be implemented in order to train sufficient numbers of SBAs.

The strategy emphasizes the priority being given to areas with high maternal death and areas with low HDI. The strategy deals with the retention and quality of SBAs, and this is discussed in the joint annual review of 2012:

*“Evidence shows that where CEOC teams are hired on contract and available for work for only six to eight months of the fiscal year, continuity & quality of care is compromised. Many birthing centres have only one ANM and she is at the facility at daytime only. Essential equipment and medical supplies are inadequate in many birthing centres. Quality is therefore a priority to be addressed.”* (MoHP 2012a:8).

## 7.6 Aama Surakshya Karyakram

In 2009, all user fees for all types of delivery services in public health care were removed on a national level. These interventions together with the transport scheme from 2005 now form the Aama Programme. This program offers incentives not only for pregnant women, but also for the provider. *“Health staffs receive NRs. [Nepali rupees] 200 per home delivery assisted, and health facilities of up to 25 beds receive NRs.1,000 per delivery and facilities with more than 25*

*beds receive NRs.1,500 for normal deliveries... (..) For complicated deliveries and Caesarean Sections (C-Sections), facilities receive NRs.3,000 and NRs.7,000 respectively." (Adhikari 2011:8)*

A demand side financing scheme, in which NRs. 400 are given to women that complete the recommended four ANC visits, was introduced in July 2009.

In the Department of Health Services' annual report from 2010/2011, "*strengthening and expanding delivery by skilled birth attendant, basic and comprehensive obstetric care services (including family planning) at all levels*" is outlined as an important strategy. Interventions include the following:

- *Developing the infrastructure for delivery and emergency obstetric care.*
- *Standardizing basic maternity care and emergency obstetric care at appropriate levels of the healthcare system;*
- *Strengthening human resource management;*
- *Establishing a functional referral system and advocating for emergency transport systems and funds from communities to district hospitals for obstetric emergencies and high - risk pregnancies;*
- *Strengthening community -based awareness on birth preparedness and complication readiness through FCHV, increasing access to all relevant maternal health information and service" (DoHS 2011:62)*

The report further discusses the increase of utilization the recent years and emphasizes that funding from Government of Nepal on the sustainability of the Aama program needs to be increased every year. Per se United Kingdoms Department for International Development (DFID) has funded 80% of the costs of the Aama program for the first 18 months. "*However, this contribution is planned to diminish over time, shifting the burden to the MOHP and other donors*" (Witter et al. 2011).

The report also addresses the issue of locating the health facilities - it should be decided with community participation (DoHS 2011). It is proposed to establish a multiyear contract system with MDGPs, staff nurses and ANM, and a request for a referral guideline is set out, as these mechanisms are not well established (DoHS 2011). Targets for births conducted by SBA in 2068/69 (2011/2012) are also set out to be 450.000 births.

In the Joint Annual Review (JAR)-report of 2012, one can read: "*The MoHP prepared a costed human resource strategy for health in 2011, giving priority to the production, deployment and retention of critical human resources (MDGP, Ob/Gyn, advanced SBA, anaesthetic assistants).*

*Retention of medical officers has improved. MoHP will explore more models for retention and pilot them” (MoHP, 2012a:15).*

Nepal is committed to the UN Secretary General’s Strategy on Maternal and Child Health, and three of the 11 commitments are of special relevance (MoHP 2012a:16):

- Fund free maternal health services among hard-to-reach populations.
- Recruit, train and deploy 10,000 additional SBAs.
- Transfer cash to pregnant and lactating mothers.

## 7.7 Summary of chapter

This chapter aimed to identify and present the most important strategies and interventions implemented by the government in order to increase use of SBA in Nepal, through a document analysis conducted at the WHO. Early in the 1990s Safe Motherhood became a priority in Nepal’s health policy, and in 1994 the first NSMP came into force. In the early 2000s skilled attendance became major issue, and the second NSMP paid attention to objectives to increase use of the service. The first maternity incentive scheme was introduced in 2005, providing cash for transport to health facility to women in labour. The national policy on skilled birth attendants, with several sub strategies to increase use of services was introduced in 2005, a year before the National in-training strategy arrived, focussing quality training and recruitment of staff. In 2009 all maternal health services was declared free of charge, and hospitals and SBAs were given economic incentives for every institutional delivery.

The next chapter will further discuss the findings from chapter 5,6 and 7.

## 8 Final discussion and concluding remarks

The purpose of this study was to investigate the use of skilled birth attendants (SBA) in Nepal. Use of SBA during delivery is important because it is likely to contribute to a decrease in maternal deaths. The use of SBA in Nepal is still relatively low at a national level, but the trends are showing an increase in use for all areas, both geographical and socioeconomic. The trends may be explained by exploring different factors and barriers that either facilitate or impede the use of SBA. Governmental strategies and interventions to increase use may also have been successful during recent years.

In this section, the findings from the study are discussed. First, the quantitative findings on the past and present delivery care situation and trends, from chapter 5, are noted. This is followed by a discussion of the qualitative findings in this thesis. The findings from chapter 6 regard the most important factors and structural barriers affecting access and use of SBA, and how this research understands the importance of these. The following part discusses the most important strategies and interventions implemented by the government in order to increase use of SBA, as explored in chapter 7. The thesis is summed up with a brief conclusion, and ends with the thesis limitations.

Nepal is one of the poorest countries in South-Asia, however statistics show that the development trends are improving in many areas. Under-five mortality and infant mortality are important indicators that have been reduced significantly since the 1990s., and the MMR in Nepal has been reduced by over 75%, and has reached the target set by the MDGs.

On a national level, the proportion of deliveries attended by SBA has risen from 9% to 36%. Overall, it seems like the latest measures from 2011 represents a leap in the use of SBA, especially when exploring the development regions and ecological zones. This may represent a substantial change in the use of SBA services and interventions to increase use may have worked. However, major disparities between groups occur. The most evident gap found in this study, is between urban and rural women. According to traditional medical geography, it is obvious that the service provision is less developed in rural areas. The spatial patterning of service provision is thus important for this thesis. Place of residency affects almost all other factors. Rural women tend to be poorer, less educated, less aware of services, incentives and benefits.

In the ecological zone *Terai*, the use of SBA has doubled between the surveys from 1996 and 2011, but for the hills, the increase could have been higher. With 43% of the population living in this ecological zone, attention should be paid to this area, and why it is not following the trend in use. The gap between the educated and non-educated users of SBA services are also worth noting, as almost four times as many with school leaving certificate and above, use SBA compared to the women with no education. Education for women is important for the health of the population. The gap in wealth quintile and use is prominent. However, the gap between the second wealthiest and below has been reduced in recent years, and this may indicate that the equity programs contributes to a positive trend.

This study has explored the factors, related to patient characteristics, and barriers, related to the provider system, that either facilitates or impede the use of SBA. These variables interact with each other, and interrelate in many areas. Therefore, this discussion will not discuss the factors and barriers separately, one by one, but rather summarize the findings, use integrated perspectives and discuss them with regard to interaction.

Geographic access is crucial for the population in Nepal, because a large part of the population experiences great geographical challenges regarding access to health services, due to a very rugged terrain. With most of the population living in rural areas, long distances and lack of transport makes it difficult for women in labour to get to a health facility. This factor is related to the structural time barrier. Travelling to a birthing facility may require hours, even days, for the Nepali women living in the most remote places. Thus, this barrier is very important, but it may be impossible to reduce it for parts of the population. The environmental forces will continue to serve rain, mudslides and rockslides throughout many areas in Nepal. Lack of roads and obstacles in the road, especially during the rainy season, can make it unsafe for a woman in labour to embark on a journey to the health facility. This creates insecurity, and many rural women hesitate to take the risk of giving birth on the way to a birthing facility. It becomes more “safe” to give birth in familiar surroundings. Other structural barriers are also relevant when speaking of distance and travelling time, as the organization of the health care system in Nepal may present challenges. Health posts or sub-health post may not be open 24 hours a day, they may not be able to perform emergency obstetric care, due to lack of eligible staff or missing equipment. This again affects the insecurity aspect, as many women are afraid of encountering unstaffed facilities.

The poor infrastructure in remote areas is paramount, but other factors and barriers affect the use of SBA as well. Many may not be aware of the services and their benefits. This can be related to the diffusion of innovation theory, and that the adaptation of the SBA-innovation are still in an early stage, especially in rural areas. Studies used in this thesis point to the importance of increasing awareness among rural women, preferably in their own communities, with methods that will capture interest and entertain rather than with written materials and brochures. Not all women in the countryside are literate, and the written information may be in a language they have not mastered.

The financial barriers to the use of health care apply regardless of whether the services are free, as money was mentioned several times by the informants as a barrier to use. This problem calls for further investigation. Are the women aware that they can get cash refund for transport, and that delivery services at the hospital are free? Out of pocket expenses may exist anyway, as traveling back and forth to a birth clinic may require a sleepover, food and tips to people at the hospital. The family of the pregnant women may lose income due to the woman's absence. Normally she has tasks in the household no one can cover.

Religious and cultural beliefs together with ethnicity and caste issues may apply when researching the use of SBA. In Nepal, there are many different ethnic groups with different practices and beliefs, which may affect the use of SBA. Breaking with family tradition may be costly for the women who dares to do it. However, none of the informants interviewed in this thesis mentioned religious practice, or affiliation with a certain ethnic group / caste as something that would hinder or facilitate the use of SBA. The emphasis was rather on the structures in society regarding women, and their role as second-degree citizens associated with old religion and traditions. Informants interviewed in this thesis argued that Nepali women have low decision-making power and low autonomy. This can be related to several theories used in this thesis. The social interactionist / humanistic turn, within contemporary geographies of health, search to explain health-related behaviour to individual decision-making and underlying motivations. Feminist research perspectives are also related to oppression, decision-making and autonomy. These elements contribute to low use of SBA, because in many cases their families do not allow them to seek health care. Significant other family members, especially husbands and mother-in-law, may determine whether the woman should seek SBA or not. These social structures relate to the structure / agency perspective applied in the theoretical part. Actions to

increase women's autonomy, and to change the traditional perception that women are second-degree citizens, were mentioned several times as efforts that would help increase use of SBA. The mothers-in-law play an essential role in everyday family life, and should perhaps be included in the awareness program.

Income, wealth and education are evident variables that affect the use of SBA. These factors, together with place of residency (urban / rural) are frequently interrelated. Often educated, wealthy people live in urban areas, with no geographical obstacles to access health care services. This group of people are often well aware of the services and sources of care, benefits and financial incentives.

The need for the SBA services is largely determined by two factors. The first is related to the woman's perception of her own maternal health, the second is related to whether she has attended antenatal check ups. In this thesis, some women of reproductive age, especially ones with several children, argued that it was not necessary to travel far away to a health clinic to give birth without abnormal pain. For them, it is easier and more convenient to give birth at home. However, if severe pain occurred they were more likely to seek SBA. ANC is an important arena for maternal education and knowledge transfer from the health worker to the pregnant woman, and may contribute to change in the social practice according to the structure / agency perspectives. The ANC arena is used to inform different aspects that affect pregnancy. The governmental cash incentives for the minimum attended ANC is important, and may have contributed to the increase in use of both ANC and SBA.

This takes us to the second part of the discussion. The following strategies and interventions to increase the proportion of births attended by SBA, are explored in this thesis: The Safe Motherhood Program, The Aama Surakchhya Program, The National Policy on Skilled Birth Attendants and The National In-service Training Strategy.

The early Safe Motherhood program, introduced in the 1990s, was a milestone in focussing on maternal health, but was implemented in such an early stage with regards to SBA. Thus this was an important step for the government, but other strategies to increase use of SBA have been more important. In 2002, The National Safe Motherhood Plan (NSMP) 2002-2017 was launched and this document has been very important for the increased use of SBA in Nepal. The document contains long-term visions, with reasonable targets in use of SBA, and activities to reach the goals are listed. The document has important features as the focus on equity in access and increased legal



and social status for women. NSMP aims at providing comprehensive emergency obstetric care in all 75 districts, and this may be possible with continuing recruitment of competent SBAs in the most remote districts.

The Aama program, the intervention implemented to meet the financial barrier seems very successful, as economic costs normally are major barriers for use of health care services. To provide maternal care free of charge is a great step towards reducing maternal deaths and improving conditions for woman in poorer countries. However, two aspects need consideration. The first is the rural women's knowledge and awareness about these incentives, mentioned also above, and how this can be facilitated. The second is the funding of these programs, and how this can proceed in the following years. The financial incentive programs are supported by international aid organizations, and many of the informants I met were anxious about the future when contracts run out. Financial support is needed to sustain the progress in both the increase in use of SBA and the reduction of maternal deaths.

The structural barriers related to the human resources situation are related to the number of SBAs, and how to retain staff in remote areas. The government has designed several interventions throughout the recent years to increase the workforce, and to transform health workers into qualified SBAs. As mentioned the strategy to transform Maternity Child Health Workers (MCHW) to become SBAs in the 1990s was not successful, and the criteria's implemented after the Dhulikhel meeting in 2004 made it more difficult to increase the SBA-cadre in a short time period. When the MCHW became SBAs, but later was not qualified as SBAs, this may have caused some confusion around reporting of the highest skilled person attending the delivery.

In the National Policy on Skilled Birth Attendants, it is stated that each health post (HP) is supposed to have two Auxiliary Nurse Midwives (ANMs) and one staff nurse, each sub health post (SHP) should have two ANMs to ensure around the clock basic emergency obstetric care. There is reason to believe that not all HP or SHP can provide this on a normal day-to-day basis, as many of the informants mentioned unstaffed or not open health facilities. The fact that the HP or SHP was unstaffed, made it difficult for pregnant women to trust the quality of care provided, and the fear of giving birth outside the clinic prevailed. The government's goal of having SBA available in every rural health post is good, but my impression is that it is really hard to retain staff in the most remote posts. In the annual report (MOH 2012) it is stated that 24 hour delivery service is now available in 148 out of 209 primary health care centres, 533 out of 676 health posts, and only 326

out of 3129 sub health posts. This is far from the stated goal. The National SBA policy do also focus short-, mid- and long-term visions and strategies, and pay attention to training sites, and the rapid expansion of these. Altogether seven specific and fair sub-strategies are presented to increase use of SBA, and responsibility is allocated the different stakeholders.

The focus in the National In-Service Training Strategy are on quality SBA-services. The strategy is in many ways a continuation of the SBA policy from 2006. With the rapid expansion of both training sites and number of SBAs, the quality of care is compromised. When medical teams are hired on contract, they work for only six to eight months. Especial rural sites need dedication, and available services to all women. The document address the quality of both for the SBA training and training sites. An estimation of the needed SBAs in order to reach the goal of 60% coverage is presented, but according to the annual report (2011) the government has a long way to go to ensure sufficient number of SBAs in the country.

## 8.1 Conclusion

The major influencing factors contributing to the increase in use of SBA in Nepal are urbanity, education, income, low parity, young age and use of ANC. The major influencing factors contributing to non-use or low use of the service are lack of awareness of the services, rurality and large geographical distances, the importance significant others, women's low autonomy and low decision-making power. Structural barriers that impede use of SBA are financial and lack of awareness of financial incentives, time barriers; especially related to travelling time as well as infrastructure and partly unstaffed facilities in rural areas.

The most important strategies and interventions to increase use of SBA are the National Safe Motherhood Plan (NSMP) 2002-2017, the Aama-program together with the National SBA Policy and the National In-training Strategy. These strategies have given strong bearings on women's use of SBA, especially in urban areas.

Use of SBA, according to these strategies and interventions, is a choice for the Nepali woman. But in order to have this choice, she must first of all be aware of the available sources of care, and perhaps the financial incentives offered to her. Thus, awareness is an important factor affecting the use of SBA. Related to the diffusion of innovation theory, there are reasons to believe

that at least rural Nepal is on an early stage of the process of adopting the innovation of SBA services. This thesis argues that the place of residency (urbanity) with a short distance to SBA services, in addition to education, income, autonomy, decision-making power and attended antenatal check-ups are factors that contribute to the increase in use of SBA. Awareness, autonomy and decision-making power among women in Nepal may come from education and occupation. This pattern could be expected according to feministic geographical approach. Education is more available in urban areas, and the highest wealth quintile resides there. Poor women in rural areas are thus the ones least likely to use maternal health services and SBA during delivery. Attention to these women should be targeted. Husbands and other heads of the family, for example mothers-in-law, appear to affect the use of health services. The traditions of non-use of SBA, influence on the individual health-seeking behaviour, however, it may be that the old social structures are about to change, when more women probably will ignore traditions and start using SBA. An important lesson of this study is that the factors and barriers that affect the use of SBA are interacting and reinforcing each other. For the largest proportion of the population (approximately 80% live in rural areas), infrastructure such as poor roads is a challenge. During the rainy season, mudslides and rockslides occur and may hinder traffic for hours. For most pregnant women, it is a long distance to a health facility to deliver. In addition to the distance and the many obstacles in the way, the lack of SBAs especially in the rural health system, creates insecurity. The health facility that would provide SBA services may be unstaffed when the women finally reach the facility, and this enhance the insecurity. This described pattern demonstrates the effects of various physical and sociocultural structures.

The most important strategies and interventions for use of SBA in Nepal may be the financial incentives implemented to reduce the financial structural barrier. The Aama program allows every woman to attend ANCs, acquire cash for transport and deliver their babies safely in hospital – free of charge. However, in order to fully take advantage of this provision, information about both the services and benefits must be spread out.

The National Safe Motherhood Plan 2002-2017 made important long-term visions and targets. The number of SBAs is increasing in Nepal. Thus, the National SBA Policy and the National In-training Strategy are important programs implemented by the government. However, it is a challenge to recruit and retain staff in the remote places, making the situation demanding for the rural population. The goal of having 24 hour delivery service available in all health posts is

unfortunately far from reached. Hence, there is a substantial urban / rural imbalance in the use of SBA, and the situation is solely improved in urban areas. Obviously, diffusion of information, attitude and values play a crucial role here.

This thesis will not conclude with any recommendations for new strategies or interventions – that will be too ambitious for a master level. However, it may be useful to recommend further research on different channels where rural women and their families can be reached in order to create awareness of the free maternal services in Nepal today.

## 8.2 Limitations

The broad exploratory approach is a limitation; however, the use of quantitative and qualitative methods provides a different picture of the situation, as it sheds light on the research objectives from different perspectives. I could have used a quantitative survey in Nepal, but that would have require more time. The time spent in Nepal, was not sufficient. I learnt so many things from the three weeks I spent there, and I believe I would have been able to get a deeper understanding if I spent more time there. If I could do it all over again, I would have focussed on a smaller area, for example Dailekh. Then I could have spent perhaps three months doing interviews with pregnant women or women that recently gave birth. I had to approach the research differently this time, due to the available time allocated at the WHO. It was an educational experience spending time at the WHO, but the time in Nepal was sub-optimal. It could have been less time at the WHO and more time in the field in Nepal, but this was not possible. The restricted research period in Nepal, may have affected the preparation and selection of informants.

An important limitation to this thesis are that the objectives grasp many aspects, and the scope could have become too large. To gain insight in a topic like delivery care and use of SBA, was much more time consuming and challenging than I expected. It now seems very ambitious to have meanings about a population's use of these services.

The thesis could have a more specific geographic approach, by further exploring the differences between rural and urban, both in the ecological and development regions. This thesis could have used a more clearly feministic approach, especially regarding the elaboration on women's autonomy and decision-making power. It would also be interesting to go deeper into specific factors that affect use for example education and awareness, and how these could

facilitate increased use in the future. It would be interesting to see how increased education for women relates to increased use of SBA. Ethnicity and caste issues are also factors that could have been studied further in this thesis, as this may be just as important as for example education.

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### **Core skills and abilities**

All skilled attendants *must* have the core midwifery skills.<sup>3</sup> The additional skills required will vary from country to country, and possibly even within a country, to take account of local differences such as urban and rural settings.

All skilled attendants, at all levels of the health system, must have skills and abilities to perform *all of the core functions* listed below.

- Communicate effectively cross-culturally in order to be able to provide holistic “women-centred” care. To provide such care skilled attendants will need to cultivate effective interpersonal communication skills and an attitude of respect for the woman’s right to be a full partner in the management of her pregnancy, childbirth and the postnatal period.
- In pregnancy care, take a detailed history by asking relevant questions, assess individual needs, give appropriate advice and guidance, calculate the expected date of delivery and perform specific screening tests as required, including voluntary counselling and testing for HIV.
- Assist pregnant women and their families in making a plan for birth (i.e. where the delivery will take place, who will be present and, in case of a complication, how timely referral will be arranged).
- Educate women (and their families and others supporting pregnant women) in self-care during pregnancy, childbirth and the postnatal period.
- Identify illnesses and conditions detrimental to health during pregnancy, perform first-line management (including performance of life-saving procedures when needed) and make arrangements for effective referral.
- Perform vaginal examination, ensuring the woman’s and her/his own safety.
- Identify the onset of labour.
- Monitor maternal and fetal well-being during labour and provide supportive care.
- Record maternal and fetal well-being on a partograph and identify maternal and fetal distress and take appropriate action, including referral where required.
- Identify delayed progress in labour and take appropriate action, including referral where appropriate.
- Manage a normal vaginal delivery.
- Manage the third stage of labour actively.<sup>4</sup>
- Assess the newborn at birth and give immediate care.
- Identify any life threatening conditions in the newborn and take essential life-saving measures, including, where necessary, active resuscitation as a component of the management of birth asphyxia, and referral where appropriate.

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<sup>3</sup> Core midwifery skills have been defined by the International Confederation of Midwives in a document entitled Essential Competencies for Basic Midwifery Practice, available at <http://www.internationalmidwives.org>

<sup>4</sup> Active management of the third stage of labour includes: using oxytocic drugs, clamping and cutting the chord, and applying controlled chord traction.

## APPENDIX A

- Identify haemorrhage and hypertension in labour, provide first-line management (including life-saving skills in emergency obstetric care where needed) and, if required, make an effective referral.
- Provide postnatal care to women and their newborn infants and post-abortion care where necessary.
- Assist women and their newborns in initiating and establishing exclusive breastfeeding, including educating women and their families and other helpers in maintaining successful breastfeeding.
- Identify illnesses and conditions detrimental to the health of women and/or their newborns in the postnatal period, apply first-line management (including the performance of life-saving procedures when needed) and, if required, make arrangements for effective referral.
- Supervise non-skilled attendants, including TBAs where they exist, in order to ensure that the care they provide during pregnancy, childbirth and early postpartum period is of sound quality and ensure continuous training of non-skilled attendants.
- Provide advice on postpartum family planning and birth spacing.
- Educate women (and their families) on how to prevent sexually transmitted infections including HIV.
- Collect and report relevant data and collaborate in data analysis and case audits.
- Promote an ethos of shared responsibility and partnership with individual women, their family members/supporters and the community for the care of women and newborns throughout pregnancy, childbirth and the postnatal period.

Skilled attendants working at the primary care levels in remote areas with limited access to facilities should also be able to do the following:

- Use vacuum extraction or forceps in vaginal deliveries.
- Perform manual vacuum aspiration for the management of incomplete abortion.
- Where access to safe surgery is not available, perform symphysiotomy for the management of obstructed labour.

*Advanced* (optional) functions that may also need to be performed by selected skilled attendants working at a referral facility include, but are not limited to, the following:

- Perform Caesareans sections.
- Manage complications during pregnancy and childbirth.
- Administer blood transfusions.

The exact set of additional and advanced skills must be determined and agreed upon nationally, depending on need, country context and policy and regulatory framework. In some cases, where the skilled attendant is the only primary health care worker, additional functions may also include, for example, identification and management of gynaecological problems, management of nutritional problems and initial treatment for injuries.





# Nepal Health Research Council

Estd. 1991



**NHRC**

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Chairman, Nepal Medical Council

23 September 2012

**Ms. Christine Holst**  
Principal Investigator  
Norwegian University of Science and Technology  
Norway

Ref: **Approval of Research Proposal** entitled **Review of strategies and interventions to increase utilization of skilled birth attendance in Nepal**

**Dear Ms. Holst,**

It is my pleasure to inform you that the above-mentioned proposal submitted on 12 August 2012 (**Reg. no. 106 /2012** please use this Reg. No. during further correspondence) has been approved by NHRC Ethical Review Board on 14 September 2012 (2069-05-29).

As per NHRC rules and regulations, the investigator has to strictly follow the protocol stipulated in the proposal. Any change in objective(s), problem statement, research question or hypothesis, methodology, implementation procedure, data management and budget that may be necessary in course of the implementation of the research proposal can only be made so and implemented after prior approval from this council. Thus, it is compulsory to submit the detail of such changes intended or desired with justification prior to actual change in the protocol.


If the researcher requires transfer of the bio samples to other countries, the investigator should apply to the NHRC for the permission.

Further, the researchers are directed to strictly abide by the National Ethical Guidelines published by NHRC during the implementation of their research proposal and submit progress report and full or summary report upon completion.

As per your research proposal, total research amount is US\$. 2,600.00 and NHRC processing fee is US\$. 100.00.

If you have any questions, please contact the research section of NHRC

Thanking you.  
Sincerely Yours,

  
.....  
**Dr. Shanker Pratap Singh**  
Member Secretary

Proportion of births assisted by SBA (doctor, nurse, midwife)

Country	Specification	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Bangladesh	All	9.5		8.0	13.7	12.1				12.0	13.2		20.1	18				26.5			
Bangladesh	Urban	34.7		34.7	43.8	33.0				27.0	29.4		37.9	36.7				41.0			
Bangladesh	Rural	6.7		5.5	10.4	8.0				8.8	9.2		14.0	13.2				22.0			
Bangladesh	All metro cities				46.2																
Bangladesh	All other municipalities				41.0																
Bangladesh	Barisal, All	7.2		8.5		10.5				8.3	11.1		13.9	13.4							
Bangladesh	Barisal Municipalities				43.6																
Bangladesh	Barisal, Division rural				11.7																
Bangladesh	Chittagong all	8.2		7.8		11.8				11.6	11.5		18.4	18.5							
Bangladesh	Chittagong, metro slum				29.6																
Bangladesh	Chittagong, metro non-slum				79.6																
Bangladesh	Chittagong, Other municipalities				38.3																
Bangladesh	Chittagong, Division rural				10.4																
Bangladesh	Dhaka, All	13.1		9.1	13.7	12.3				13.1	14.7		22.5	19.8							
Bangladesh	Dhaka, Metro slum				45.0																
Bangladesh	Dhaka, Metro non-slum				50.6																
Bangladesh	Dhaka, Other municipalities				7.6																
Bangladesh	Dhaka, Division rural																				
Bangladesh	Khulna, All	11.8		14.3		19.2				16.4	20.5		27.3	26.5							
Bangladesh	Khulna, Metro City				42.0																
Bangladesh	Khulna, Other municipalities				40.4																
Bangladesh	Khulna, Division rural				17.3					10.5	10.6		18.6	15.4							
Bangladesh	Rajshahi, All	6.0		4.9	21.7	10.3															
Bangladesh	Rajshahi, Metro City				31.1																
Bangladesh	Rajshahi, Other municipalities				10.2																
Bangladesh	Rajshahi, Division rural																				
Bangladesh	Sylhet, All			5.2		9.3				8.8	11.1		16.0	10.9							
Bangladesh	No education	4.6		2.9		5.4				4.4	4.3		7.0	4.6							
Bangladesh	Primary incomplete	6.4		5.4		7.6				7.6	8.5		11.6	8.3							
Bangladesh	Primary complete	7.5		10.4		9.0				10.4	12		14.5	12.6							
Bangladesh	Secondary / Higher	32.7		28.6		30.4				28.5	20.3		26.1	27.4							
Bangladesh	Secondary incomplete										55.1		62.1	47.3							
Bangladesh	Secondary complete or higher												10.1								
Bangladesh	Non-standard curriculum												43.8								
Cambodia	All			43.3		34							70.1						71		
Cambodia	Urban			79.5		55.9							39.4						66.6		
Cambodia	Rural			36.5		35.1							33.1						69		
Cambodia	Banteay Mean Chey									36.6			45.9						67.9		
Cambodia	Kampong Cham												37.2					59.8			
Cambodia	Kampong Chhnab												22.7					68.2			
Cambodia	Kampong Speu												73.5					47.7			
Cambodia	Kampong Thum												0.0					87			
Cambodia	Kandal												28.6					44.4			
Cambodia	Kaoh Kong												86.0					98.8			
Cambodia	Kratie												28.0					59.2			
Cambodia	Phnom Penh												33.8					73.9			
Cambodia	Prey Veaeng												28.6					72.7			
Cambodia	Pursat												62.1					89.6			
Cambodia	Siem Reap												15.2					85.4			
Cambodia	Svay Rieng												59.3					64.4			
Cambodia	Takaev												41.0					78.1			
Cambodia	Otdar Mean Chey																				
Cambodia	Bat dambang/Krong Pallin																				
Cambodia	Kampot/ Krong Kaeb/ Krong Preah Sihanouk																				
Cambodia	Kampot/ Kep																				
Cambodia	Preah Sihanouk/ Koh Kong																				
Cambodia	Preah Vihear / Stung Treang / Kracheh												0.0					79.2			

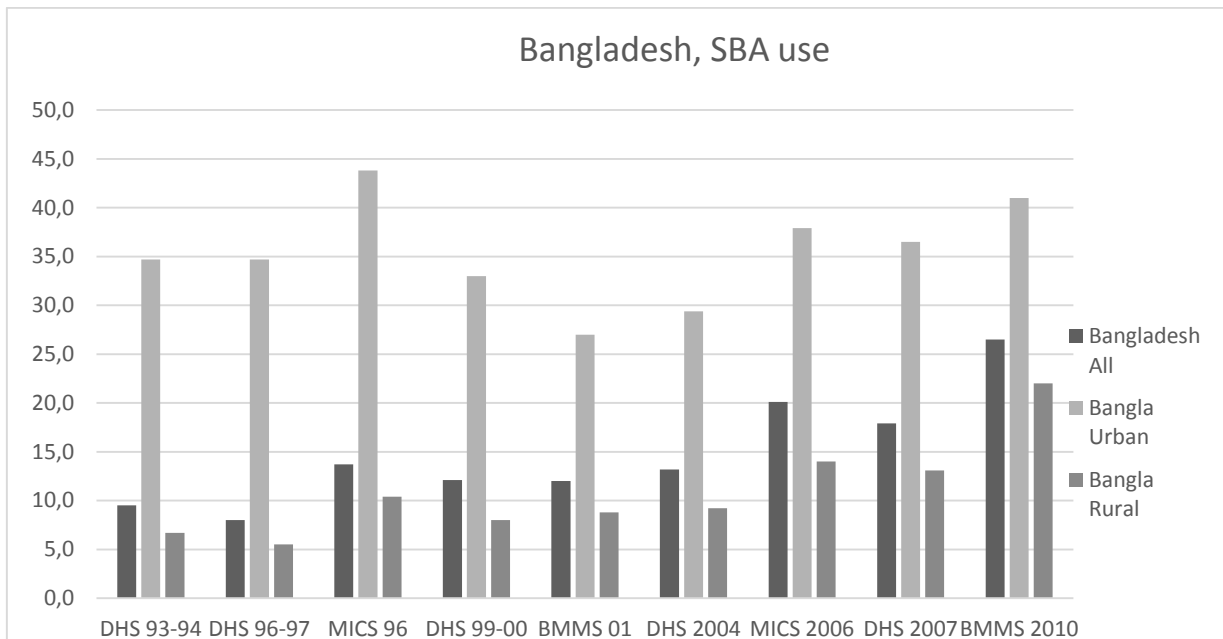




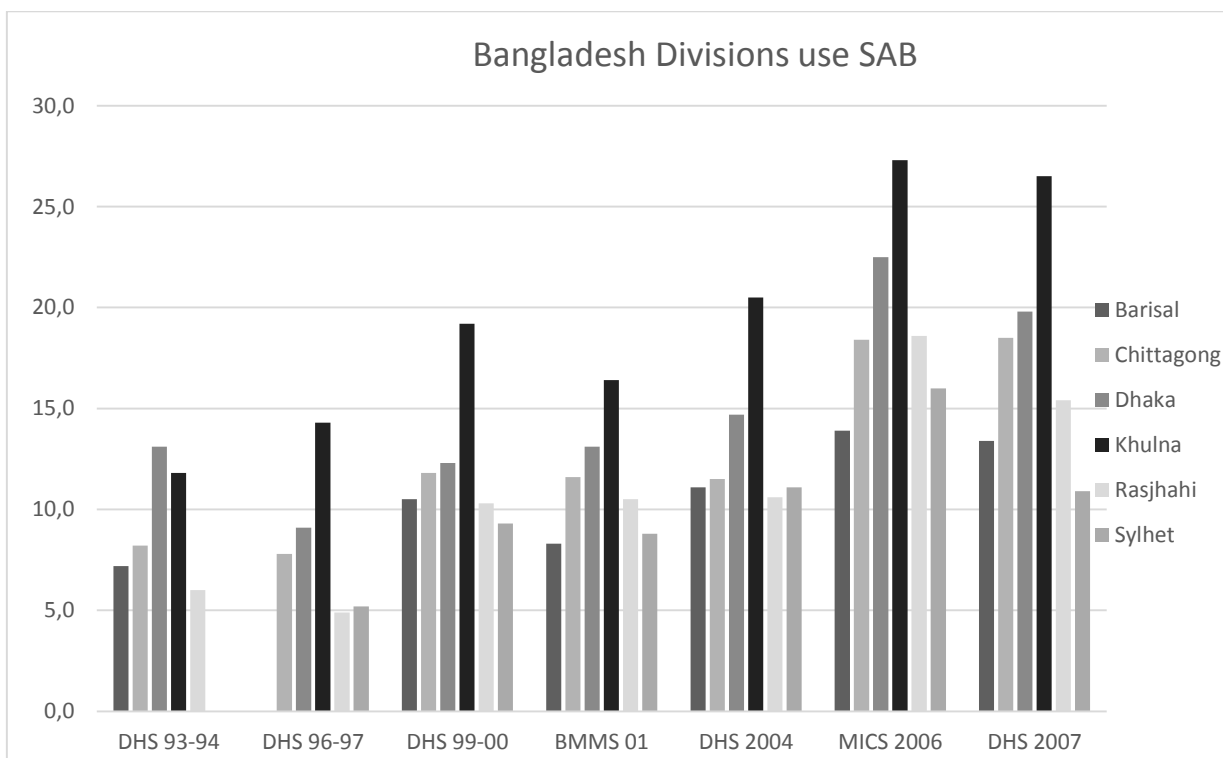
Proportion of births assisted by SBA (doctor, nurse, midwife)

Country	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	
Nepal																					
	Lowest														4,8						10,7
Nepal	Second														10,1						23,7
Nepal	Middle														12,4						35,9
Nepal	Fourth														23						53
Nepal	Highest														57,8						81,5

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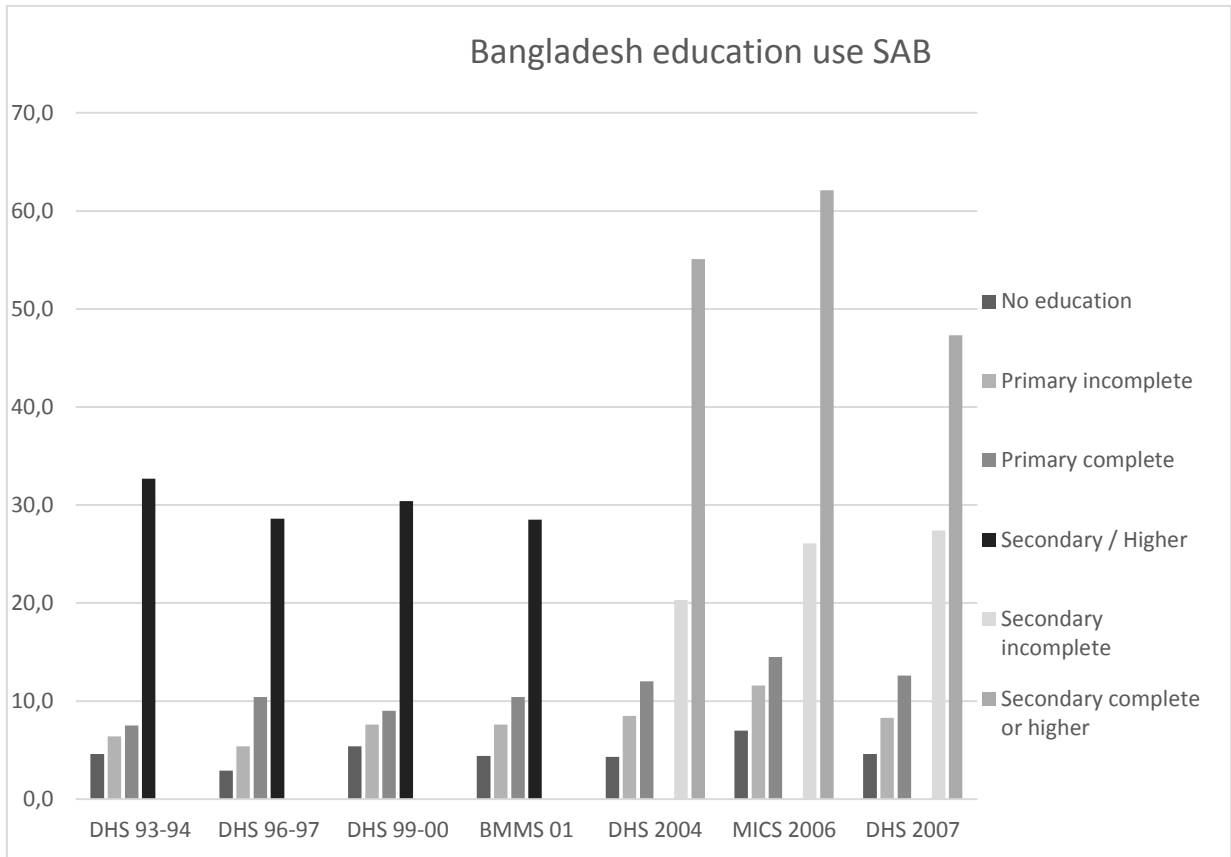


(Holst 2012, desk study, compiled data by author)

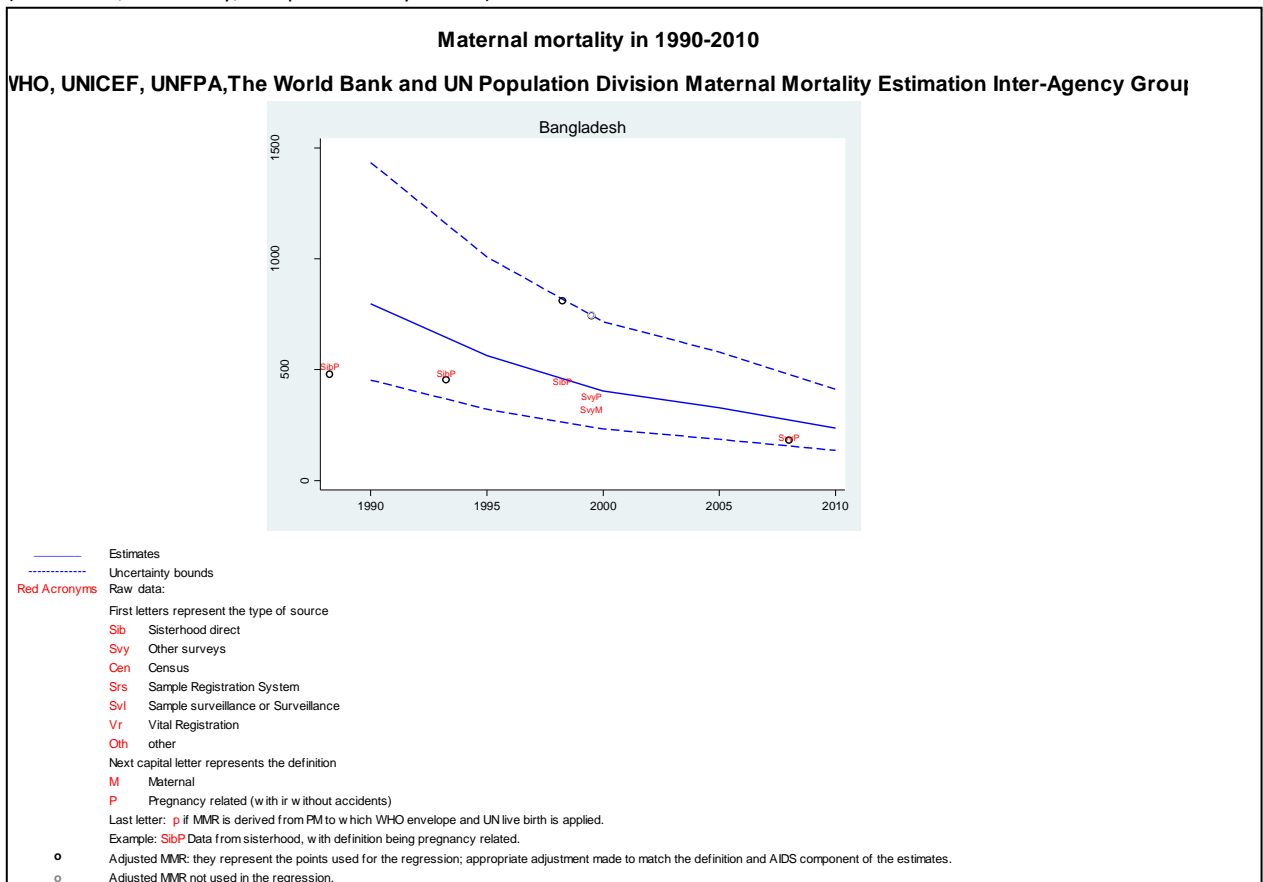


(Holst 2012, desk study, compiled data by author)

APPENDIX D

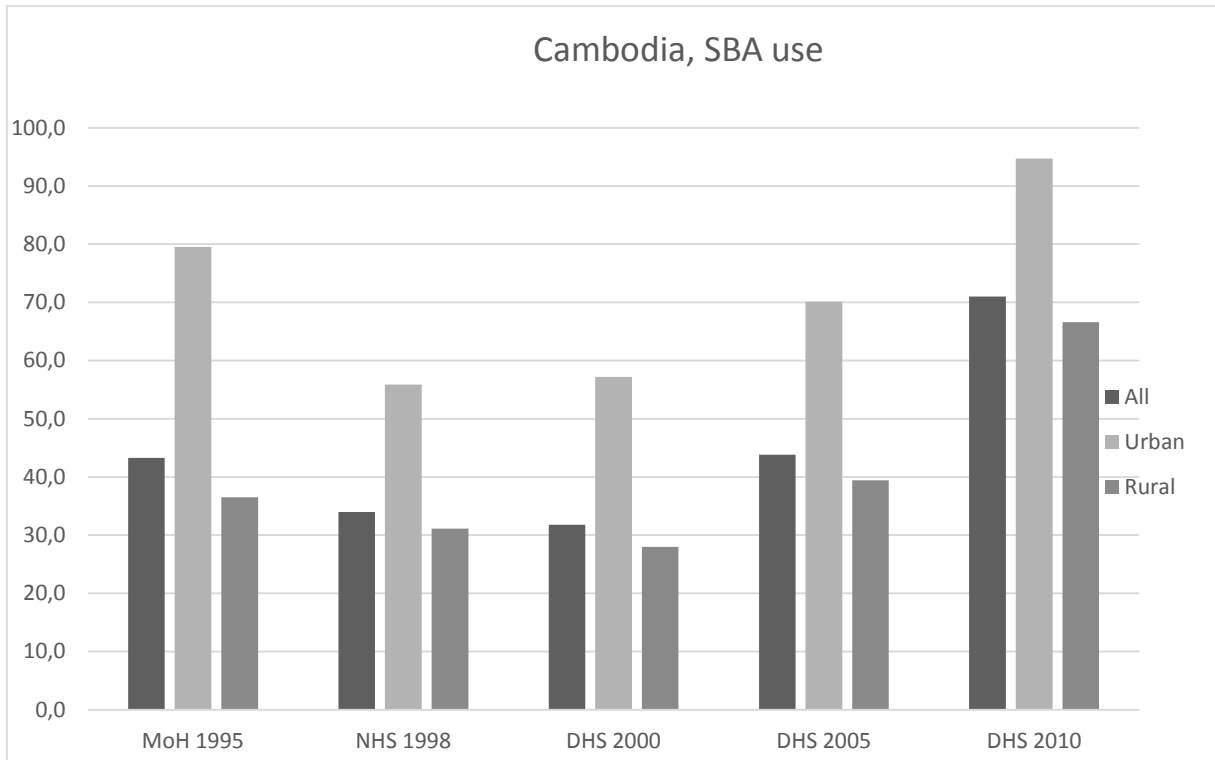


(Holst 2012, desk study, compiled data by author)

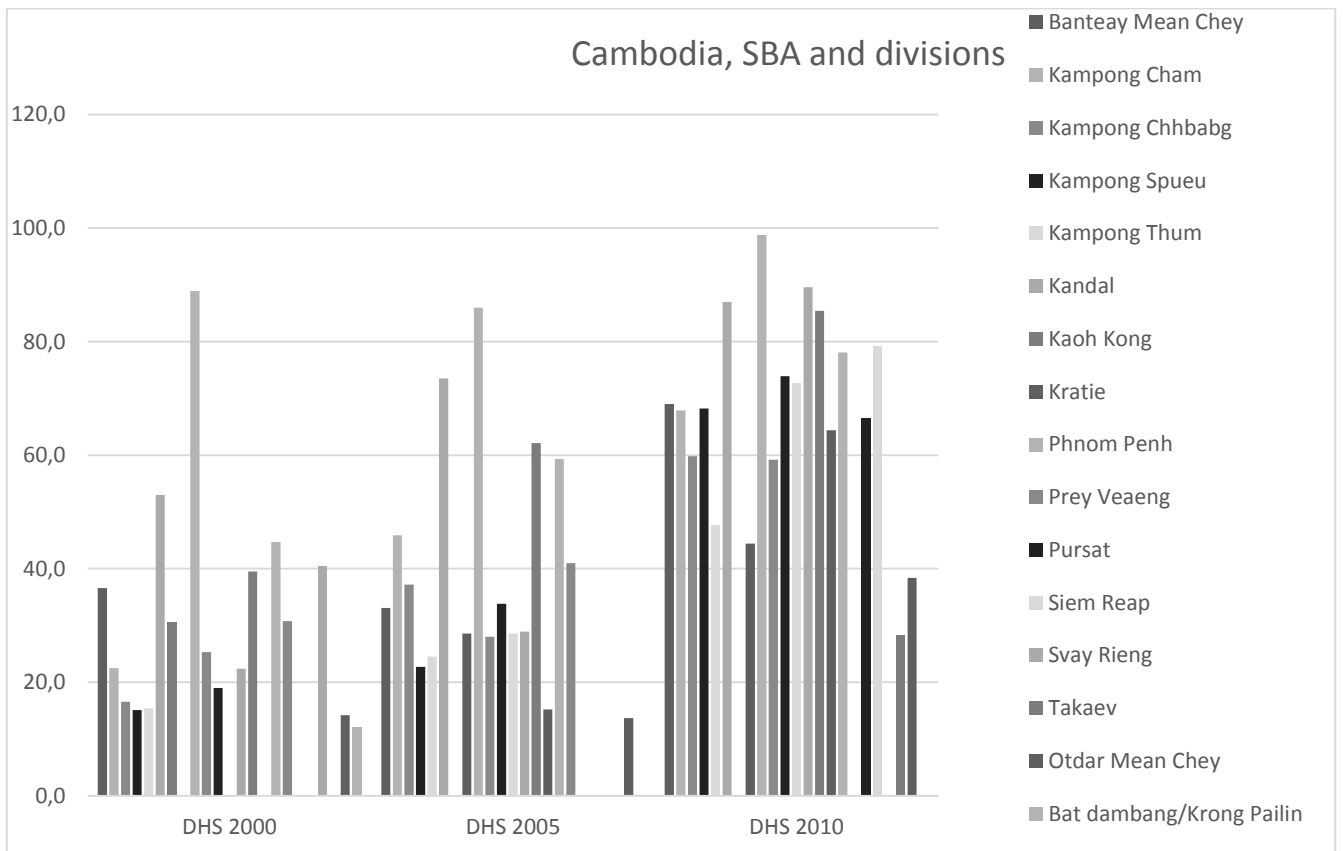


Source: MMEIG 2012

APPENDIX D

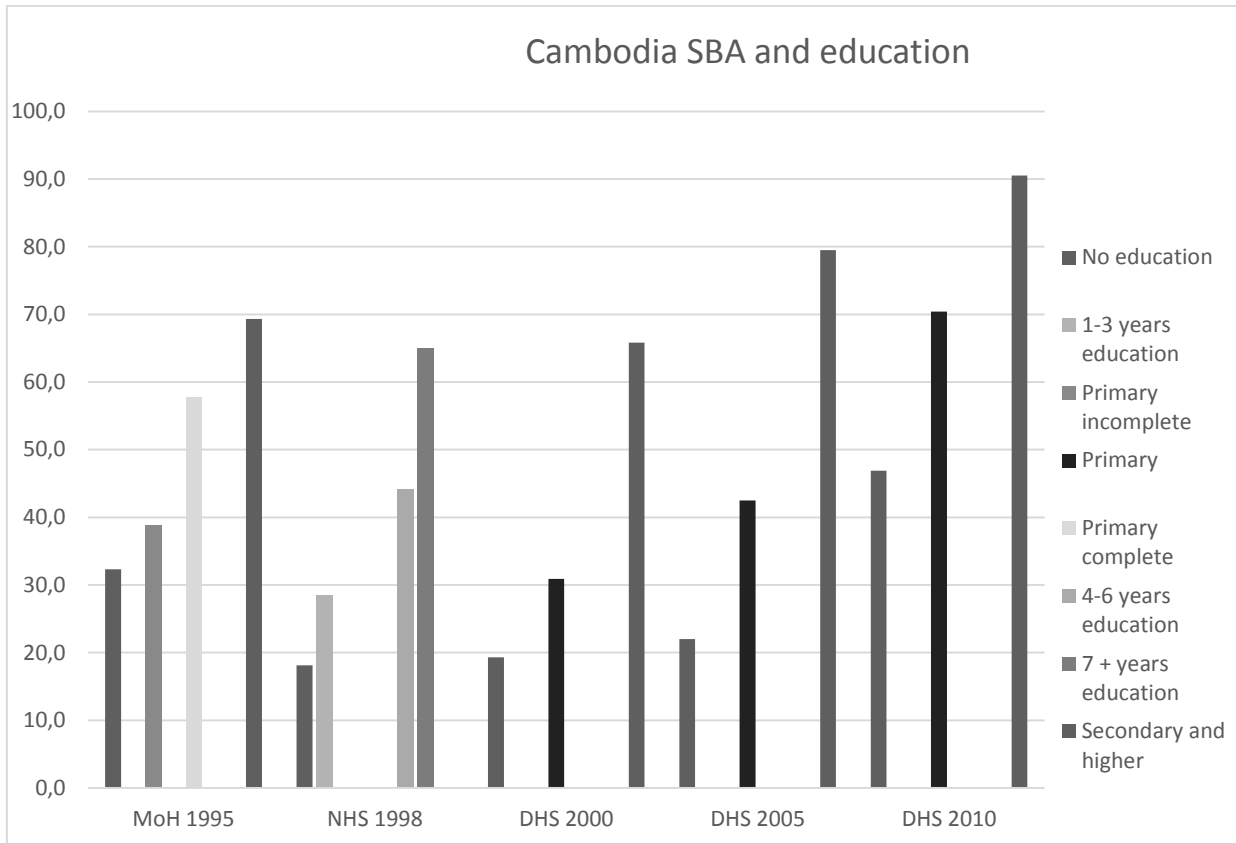


(Holst 2012, desk study, compiled data by author)

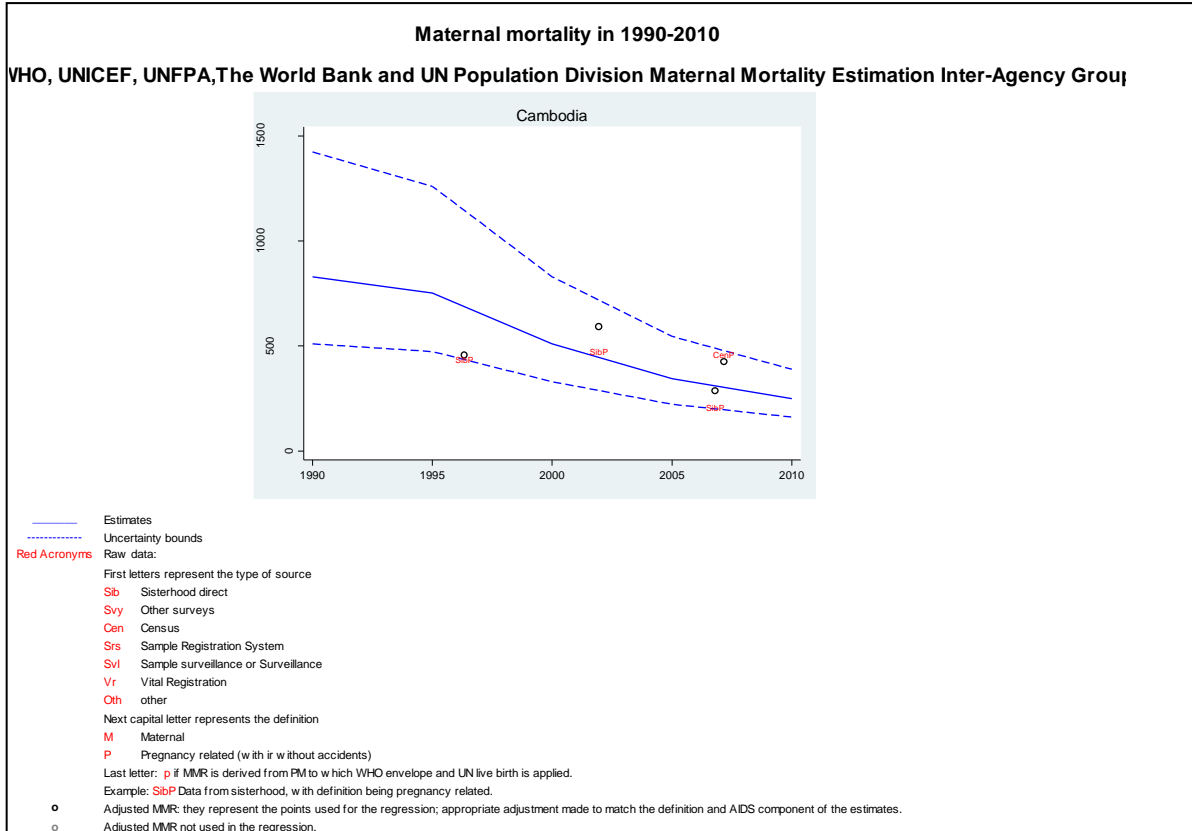


(Holst 2012, desk study, compiled data by author)

APPENDIX D

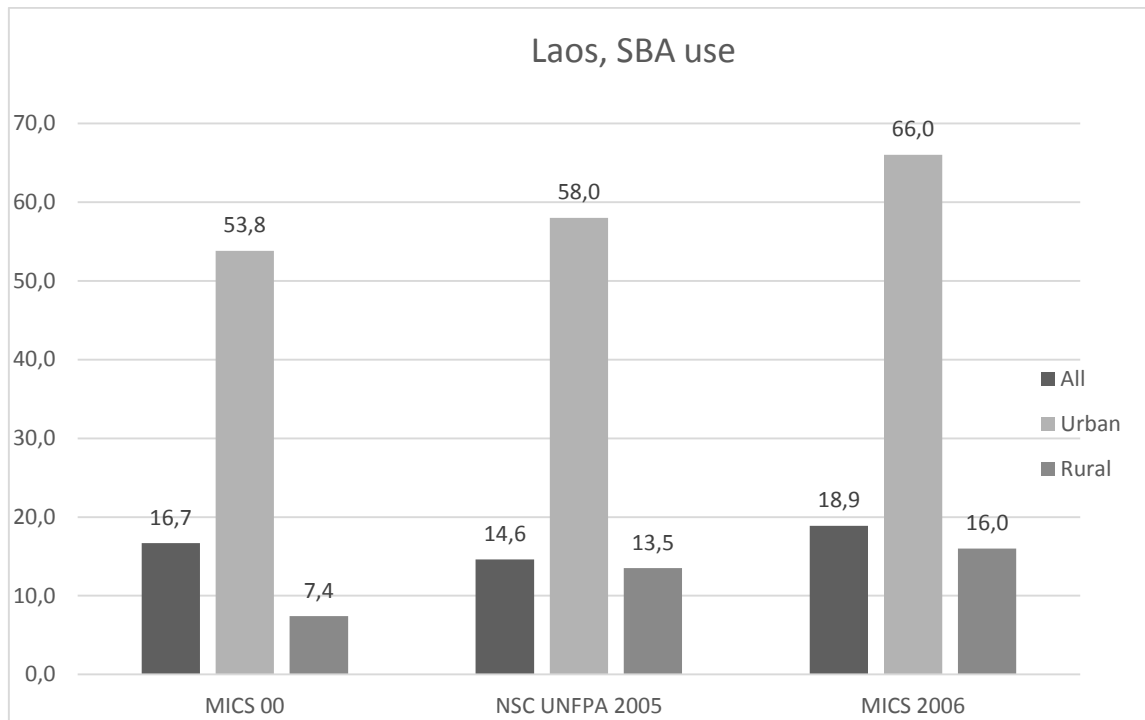


(Holst 2012, desk study, compiled data by author)

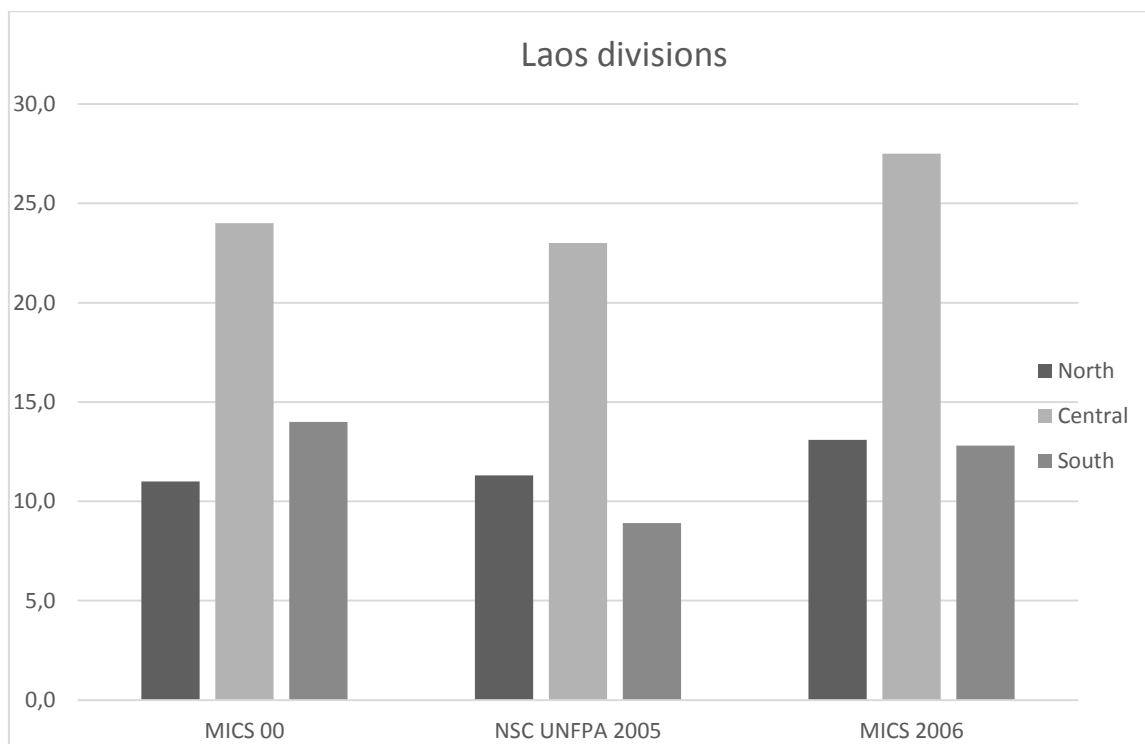


Source: MMEIG 2012

## APPENDIX D

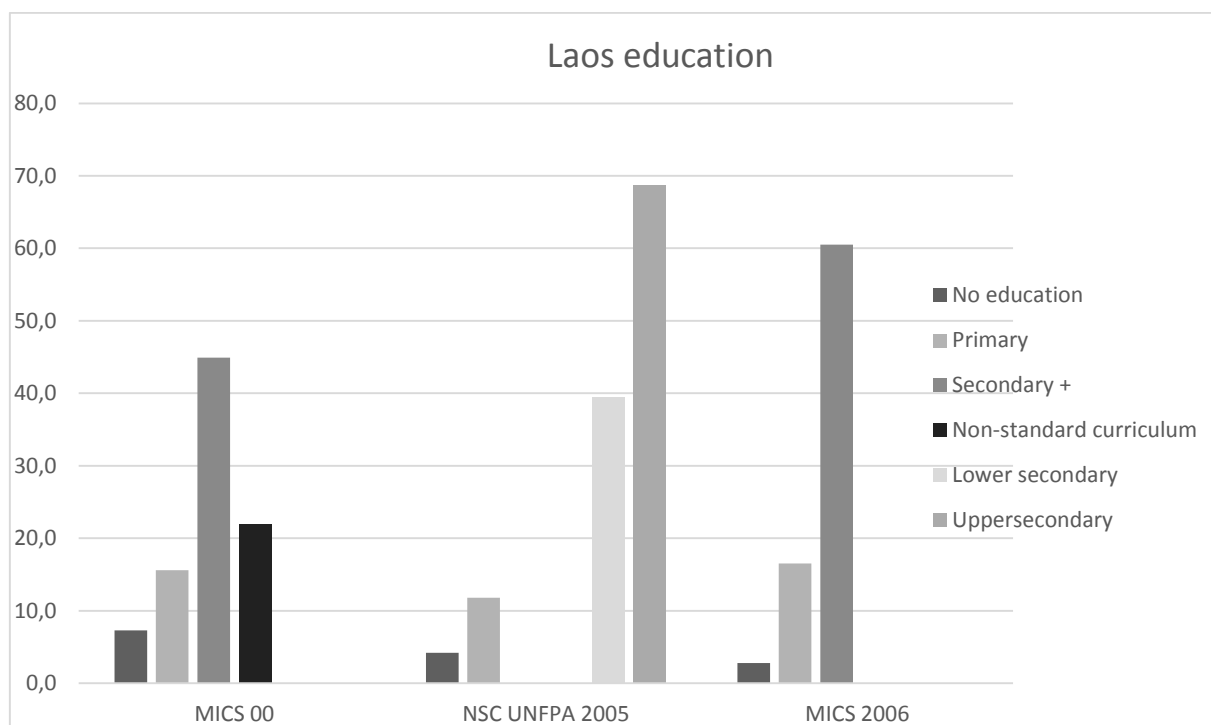


(Holst 2012, desk study, compiled data by author)

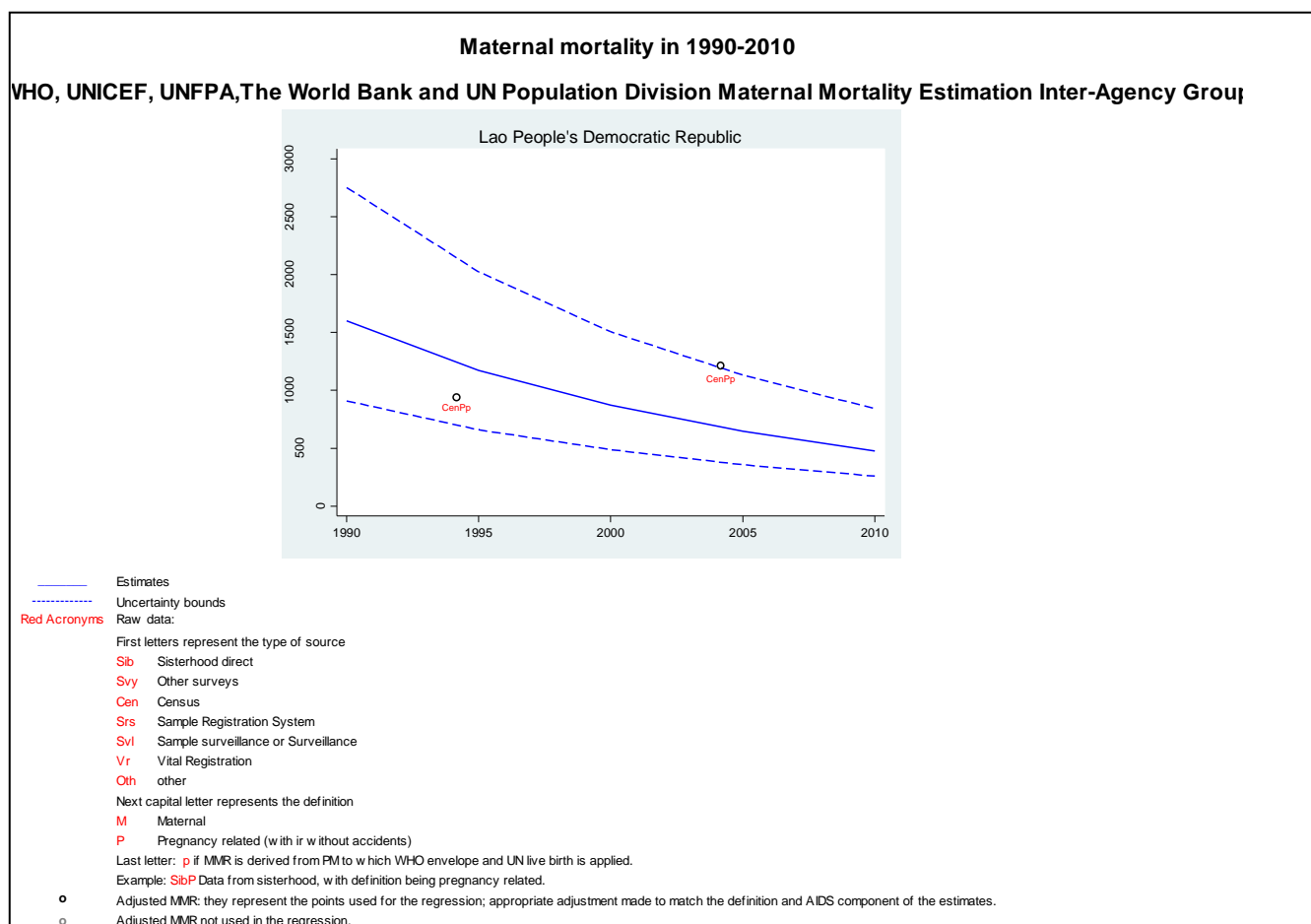


(Holst 2012, desk study, compiled data by author)

## APPENDIX D





(Holst 2012, desk study, compiled data by author)



Source: MMEIG 2012



Type	Name	Source	Year	Key issues	Comments	Link	Abstract
A	Review of ...	Caravan, A. (2009). <u>Review of global literature on maternal health interventions and outcomes related to skilled birth attendance</u> . KIT Working Papers Series 113. Amsterdam: KIT	2009	Participation, community, level / skill of provider – quality of care,		<a href="http://www.search4dev.nl/document/137532">http://www.search4dev.nl/document/137532</a>	
B	Making preg...	World Health Organization, 2004. Making pregnancy safer : the critical role of the skilled attendant : a joint statement by WHO, ICM and FIGO. Geneva: WHO	2004	Def SAB			Making pregnancy safer: The critical role of the skilled attendant. A joint statement by WHO, ICM and FIGO
S	Support to safe motherhood...	Banker, C. et al., 2007. Support to the Safe Motherhood Programme in Nepal: An Integrated Approach; <a href="http://www.options.co.uk/options.con">http://www.options.co.uk/options.con</a>	2007	Evidence 97-06 indicate progress red development. Shortage of staff. Increasing access.		<a href="http://www.sciencedirect.com/science/article/pii/S0969696307000683">http://www.sciencedirect.com/science/article/pii/S0969696307000683</a>	Evidence gathered from 1997 to 2006 indicates progress in reducing maternal mortality in Nepal, but public health services are still constrained by resource and staff shortages, especially in rural areas. The five-year Support to the Safe Motherhood Programme builds on the experience of the Nepal Sater Motherhood Project (1997–2004). It is working with the government of Nepal to build capacity to institute a minimum package of essential maternity services, linking evidence-based policy development with health system strengthening. It has supported long-term planning, working towards skilled attendance at every birth, safe blood supplies, staff training, building management capacity, improving monitoring systems and use of process indicators, promoting dialogue between women and
S	SAB: What does it mean...	Carbaugh, M. and McCall, M. (2009). Skilled birth attendance: What does it mean and how can it be measured? A critical skills assessment of training and child birth workers in Nepal; <a href="http://www.figo.org/docs/AMDDP%20090505-04.pdf">http://www.figo.org/docs/AMDDP%20090505-04.pdf</a>	2009	TBA cannot save lives. Role of MCHWs. Competency alone will not necessarily improve the situation, to reduce maternal mortality in Nepal. MCHWs must be widely available, they must be allowed to do what they are trained to do, and they must have logistical and policy support.	Refresher-trained MCHWs performed significantly better	<a href="http://www.sciencedirect.com/science/article/pii/S0969696309000201">http://www.sciencedirect.com/science/article/pii/S0969696309000201</a>	The presence of a skilled birth attendant at delivery is important in averting maternal and neonatal mortality and morbidity. It has now shown that even trained traditional birth attendants (TBAs) cannot, in most cases, save women's lives effectively because they are unable to treat complications, and are often unable to refer. Qualified midwives and doctors are often not available in the rural areas, and community settings where most women in developing countries deliver. Defining the minimum competency level necessary to meet the definition of skilled birth attendant is important, particularly in countries such as Nepal with limited availability of facility-based emergency obstetric care. Maternal and child health workers are local women aged 18–35 who completed a 19-week course in maternal and child health. As the role of MCHWs has expanded to meet the country's needs for skilled attendance, a 6-week refresher course in maternity skills is offered. The results of this critical skills assessment of 104 randomly selected MCHWs local to districts across Nepal supports the premise that MCHWs with appropriate knowledge and skills demonstrate a higher level of competency in a practice situation, a more precise definition of community-level skilled birth attendants. Yet, community settings will not necessarily improve the situation. To affect maternal mortality in Nepal, MCHWs must be widely available, they must be allowed to do what they are trained to do, and they must have logistical and policy support.
S	Skilled care among rural...	Dhakal, S et al. Skilled Care at Birth among Rural Women in Nepal: Practice and Challenges	2011	barriers to access, factors related to use. Concludes: Main problems of access, distance, lack of transportation, lack of awareness	distance, transport awareness and cost. Age, education, occupation for both wife and husband	<a href="http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3190368/">http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3190368/</a>	In Nepal, most births take place at home, and many, particularly in rural areas, are not attended by a skilled birth attendant. The main objectives of the study were to assess the use of skilled delivery care and barriers to access such care in a rural community and to assess health problems during delivery and seeking care. This cross-sectional study was carried out in two Village Development Committees in Nepal in 2006. In total, 150 women who had a live birth in the 24 months preceding the survey were interviewed using a structured questionnaire. The sample population included married women aged 15–49 years. Forty-six (31%) women delivered their babies at hospital, and 104 (69%) delivered at home. The cost of delivery at hospital was significantly (p<0.001) higher than that of a delivery at home. Results of univariate analysis showed that women from Brahmin-Chhetri ethnicity, women with higher education or who were more skilled, whose husbands had higher education and more skilled jobs, had first or second childbirth, and having adverse obstetric history were associated with institutional delivery while women with higher education and having an adverse history of pregnancy outcome predicted the uptake of skilled delivery care in Nepal. The main perceived problems to access skilled delivery care were: distance to hospital, lack of transportation, lack of awareness on delivery care, and cost. The main reasons for seeking institutional care were: the husband's education, and excessive bleeding. Only a quarter of women sought care when they had serious problems during delivery. The main reasons for seeking care were: the husband's education, and excessive bleeding. Only a quarter of women sought care when they had serious problems during delivery. The role of skilled birth attendants at delivery at home was also assessed. Many associated factors relating to the use of skilled birth attendants at home were identified including: age, education and occupation of women and education and occupation of husbands. Therefore, the availability of skilled delivery care services at the community, initiation of a primary health centre with skilled staff for delivery, and increasing awareness among women to seek skilled delivery care are the best solution.
B	UN-report	World Health Organization, 2012. Trends in maternal mortality, 1990–2010. Geneva: WHO	2012	Statistics, trends, definitions			

Type	Name	Source	Year	Key issues	Comments	Link	Abstract
10	What drives health policy formulation: Insights from the Nepal maternity incentive scheme?	Ersoz T, et al. What drives health policy formulation: Insights from the Nepal maternity incentive scheme? Health Policy (2008). doi:10.1016/j.healthpol.2008.06.009	2008	reasons for policy, maternity incentive scheme. Barrier to access, demand supply, Transport, advocacy.	why maternity inc was implemented		
11	Understanding the access, demand and utilization of health services by rural women in Nepal and their constraints	The world bank, Kathmandu	2001	Level of satisfaction with health services	perceived level of access, demand and utilization of health services by rural women themselves in five ethnically and socio-economically diverse districts of Nepal.	<a href="http://www.healthnet.org.np/healthstat/worldbank/women">http://www.healthnet.org.np/healthstat/worldbank/women</a>	the main purpose of this study was mainly to: i) increase our understanding of the social and gender factors that are impeding improvements in the health of rural women and to mainstream them into our future health assistance strategy; and ii) facilitate the formulation of gender sensitive health policies by sharing the findings out of the study with His Majesty's Government of Nepal and partner agencies
12	The Fifty-Third Session of the Regional Committee for South-East Asia, Equity in Access to Public Health	SEARO WHO	2008	equity in access. Def and views equity		<a href="http://www.searo.who.int/en/Section1430/Section1439/Section1746/Section2442_13725.htm">http://www.searo.who.int/en/Section1430/Section1439/Section1746/Section2442_13725.htm</a>	Many studies investigating access to health care use treatment received (i.e. utilisation) as a proxy for access. However, utilisation of health services may vary for many several reasons, such as perceptions of benefits or availability, availability of alternative therapies or services) and is an imperfect measure of access. Nonetheless, it is commonly used as such.
13	Inequalities in the distribution of health and health care and its access, including inequalities relating to social class, gender, culture and ethnicity, and their causes	GoN, MoHP	2012	equity	Goddard and Smith (2001) outline reasons for variations in access to health care:		Goddard and Smith (2001) outline reasons for variations in access to health care: Availability: Some health care services may not be available to some population groups, or clinicians may have different propensities to offer treatment to patients from different population groups, even where they have identical needs. Quality: The quality of services offered to patients may vary between population groups. Costs: The health care services may impose costs (financial or otherwise) which vary between population groups. Information: The health care organisations may fail to ensure that all population groups are equally aware of the services available.
14	Report of the JAR meeting 2012	GoN, MoHP	2012	Indicators achieved / not achieved, No of SBA trained, why some will not join Aama, surveys, equity, outputs and strategies, NBI S 19, Home delivery rural = 69%, HR-strategy, Aama, barriers		<a href="http://www.healthknowledge.org.uk/public-health-textbook">http://www.healthknowledge.org.uk/public-health-textbook</a>	
15	Briefing paper on Essential Health care Services EHSC Nepal	Resource center for prim health care (RECPHEC)	2010	Health and education indicators improves. Right to access free health services. 2007-2008, free maternity services 2009			
16	Understanding access, demand and utilization... Utilization of rural maternity delivery services in Nawalparasi and Kapilvastu District: A Qualitative Study	WB	2001	Litt outdated. Factorer og barrierer for bruk	AMA surakshya karyakram. 1000 rs to mothers. Dissemination of information on free health services 2009	<a href="http://www.ridnepal.org/download/EHCS%20briefing%20paper.pdf">http://www.ridnepal.org/download/EHCS%20briefing%20paper.pdf</a>	
17	The evolution of a quality of care approach for improving emergency obstetric care in rural hospitals in Nepal	Achmed et al	2010	sba = key factor for reducing MMR. Factors influencing the use. Attitudes toward health staff		<a href="http://www.nepjol.info/index.php/JCNSN/article/download/4072/3440">www.nepjol.info/index.php/JCNSN/article/download/4072/3440</a>	
18	Community mobilisation and health management committee strengthening to increase birth attendance by trained health workers in rural Makwanpur, Nepal: study protocol for a cluster randomised controlled trial	Clepham et al	2004	Quality of care, rationale for developing a quality of care approach		<a href="http://www.trialsjournal.com/content/pdf/1745-6215-12-128.pdf">http://www.trialsjournal.com/content/pdf/1745-6215-12-128.pdf</a>	
19	Determinants of skilled birth attendants for delivery in Nepal	Morrison et al	2011	local participation, community mobilisation. Barriers to institutional deliveries. Mat. Incentive scheme. 8 strategies for increasing SBA. TBA-SBA discussion		<a href="http://www.kumli.com.np/issue/312925-5332.pdf">http://www.kumli.com.np/issue/312925-5332.pdf</a>	explore the factors affecting the uptake of skilled birth attendants for delivery and the issues associated with women's role and choices. Literature was reviewed across the globe and discussed in a Nepalese context. The literature suggests that several socio-economic, cultural and religious factors play a significant role in the use of Skilled Birth Attendance for delivery in Nepal.
20		Baral et al	2010	factors. Literature. Limited choice.			



APPENDIX E

Type	Name	Source	Year	Key Issues	Comments	Link	Abstract
WHO	WHO	Country health profile		most vulnerable groups, women and children, rural pop, equitable access by extending quality health care, reduce MMR to 250 / 100000, FCHVD decentralisation = priority issue		<a href="http://www.searo.who.int/en/Section313/Section1523_6866.htm">http://www.searo.who.int/en/Section313/Section1523_6866.htm</a>	
S	Efficiency of Aama Svakshiya Kayakram in terms of Barriers in Accessing Maternal Health Services in Nepal	Bhusal CL et al	2011	incentive, awareness, transport, decision making, barriers, satisfaction, quality of care, not prepared for delivery.		<a href="http://www.nhrc.com.np/index.php?journal=nhrc&amp;page=article&amp;op=view&amp;path%5B%5D=341">http://www.nhrc.com.np/index.php?journal=nhrc&amp;page=article&amp;op=view&amp;path%5B%5D=341</a>	
WHO	WHO Country Cooperation Strategy, 2006-2011	WHO SEARO	2006	demographic and epidemiological transition, Decade of political unrest, access, equity, strategic agenda, human rights, education, demographics, social health inequity, the conflict, vulnerability, underlying causes for MMR, HR situation, donors and partners, WHO cooperation.	SJEKK LINK HJEMME	<a href="http://www.nep.searo.who.int/linkfiles/publications_cscs_2006-2011a.pdf">http://www.nep.searo.who.int/linkfiles/publications_cscs_2006-2011a.pdf</a>	" The vision of Health and Development of GoN's Ministry of Health is guided by the belief that health is a human right and to have a health system in which there is equitable access to coordinated quality health care services in rural and urban areas; and health services are characterized by self-reliance, full community participation, decentralization, gender sensitivity, and effective and efficient management, resulting in improved health status of the population." " Commitment to health sector as part of development oriented social justice, MoHP developed Health Sector Strategy (HSS) with an aim to provide an equitable, high quality health care system for the Nepalese people residing in the poor to reach un-reached, ultra poor, marginalized and provide Essential Health Care Services."
WHO	REVITALIZING PRIMARY HEALTH CARE COUNTRY EXPERIENCE: NEPAL	WHO SEARO	2008	Health human right, equity, access, HSS Health sector strategy, HR situation.	SJEKK LINK HJEMME	<a href="http://www.searo.who.int/linkfiles/Conference_Nepal_1000-new-SABs-during-2008.pdf">http://www.searo.who.int/linkfiles/Conference_Nepal_1000-new-SABs-during-2008.pdf</a>	Reasons why MCHW and ANM are not SBA 1000 new SABs during 2008???? Cash intensive: 300rs to SBA when attending deliveries home or at facility. ... Other key elements of the policy are the production of SBAs as a part of HR management systems to address deployment, motivation and retention issues; introducing decentralized health management system to ensure equitable distribution of skilled attendants, ensure effective partnerships with other health workers including Female Community Health Volunteers (FCHVs) and develop capacity of professional councils for instituting a process of effective accreditation system in order to ensure quality of care.
WHO	Strategic paper: Skilled Birth Attendants, 1. Raitmale	WHO SEARO		SBA=key factor for success at community lev, MCHW, ANM, MASSE STRATEGIER!!!	SJEKK LINK HJEMME	<a href="http://www.nep.searo.who.int/linkfiles/Home_Skilled_Birth_Attendants.pdf">http://www.nep.searo.who.int/linkfiles/Home_Skilled_Birth_Attendants.pdf</a>	
WHO	Nepal - National health system profile	WHO SEARO		Financial res for health, concern on equity s 12, s42 MDG5, power in rural areas, narrowing gap, betw rural / urban in access to water	SJEKK LINK HJEMME	<a href="http://www.searo.who.int/linkfiles/Nepal_Profile-Nepal.pdf">http://www.searo.who.int/linkfiles/Nepal_Profile-Nepal.pdf</a>	
MoH	Annual report Health System Policies and Service Delivery (HSP) VIKTIG					<a href="http://www.ministerial-leadership.org/sites/default/files/resources_and_tools/Health%20Sector%20Strategy_An%20Agenda%20for%20Reform.pdf">http://www.ministerial-leadership.org/sites/default/files/resources_and_tools/Health%20Sector%20Strategy_An%20Agenda%20for%20Reform.pdf</a>	
WHO		WHO SEARO	decentralization.			<a href="http://dohs.gov.np/?q=node">http://dohs.gov.np/?q=node</a>	
S	Health policy analysis: a tool to evaluate in policy documents the alignment between policy statements and intended outcomes	Cheung et al	2010	describes the use of a policy analysis tool to evaluate the alignment between policy statements and intended outcomes of principal chronic illness policy documents, analysed the major health policy		<a href="http://www.publish.csiro.au/?act=view_file&amp;file_id=AH9767.pdf">http://www.publish.csiro.au/?act=view_file&amp;file_id=AH9767.pdf</a>	
A	Preparing a Qualitative Research-Based Dissertation: Lessons Learned	Glenn A. Bowen	2005	lessons learned during the process of preparing a dissertation based on qualitative research methods.		<a href="http://www.nova.edu/sss/OR10-2/bowen.pdf">http://www.nova.edu/sss/OR10-2/bowen.pdf</a>	As part of a participatory intervention in rural Nepal, community women's groups initiated and managed local funds. We explore the factors affecting utilization and management of these funds and the role of the funds in the success of the women's group intervention. We conducted a qualitative study using focus group discussions, group interviews and unstructured observations. Funds may increase access to care for members of trusted 'insider' families adjudged as able to repay loans. Sustainability and sufficiency of funds was a concern but funds increased women's independence and enabled timely care seeking. Conversely, the perceived necessity to contribute may have deterred poorer women. While funds were integral to group success and increased women's autonomy, they may not be the most effective way of supporting the poorest, as the risk pool is too small to allow for repayment default.
S	Utilization and management of maternal and child health funds in rural Nepal	Morrison et al			enter.med.NTNU.vpn	<a href="http://cd.oxfordjournals.org/content/45/1/75.short">http://cd.oxfordjournals.org/content/45/1/75.short</a>	

APPENDIX E

Type	Name	Source	Year	Key Issues	Comments	Link	Abstract
40	Community mobilisation and health management committee strengthening to increase birth attendance by trained health workers in rural Makwanpur, Nepal: study protocol for a cluster randomised controlled trial	Morrison et al	2011			<a href="http://www.trialsjournal.com/content/pdf/1745-6215-12-50">http://www.trialsjournal.com/content/pdf/1745-6215-12-50</a>	Birth attendance by trained health workers is low in rural Nepal. Local participation in improving health services and increased interaction between health systems and communities may stimulate demand for health services. Significant increases in birth attendance by trained health workers may be affected through community mobilisation by local women's groups and health management committees strengthening. We will test the effect of community mobilisation through women's groups, and health management committees strengthening, on institutional deliveries and home deliveries attended by trained health workers in Makwanpur District.
41	Models of Skilled Attendance in Rural and Resource-Poor Settings: A Review of the	Samia S. Farooqi	2009		Nepal halved its maternal mortality rate between 1990 and 2008, from 471 to 240 per 100,000 live births, potentially saving approximately 5,000 lives per year.	<a href="http://www.muiresaladas.de/reports/Models%20of%20Skilled%20Birth%20Attendance.pdf">http://www.muiresaladas.de/reports/Models%20of%20Skilled%20Birth%20Attendance.pdf</a>	
42	Maternal Health: Investing in the Lifeline of Healthy Societies & Economies	Africa Progress Panel Policy Brief	2010	cash transfers for transportation, incentives to skilled birth attendants to undertake deliveries.	50	<a href="http://www.who.int/pmnch/topics/maternal/app_maternal_health_english.pdf">http://www.who.int/pmnch/topics/maternal/app_maternal_health_english.pdf</a>	
43	Maternal mortality for 181 countries, 1980–2008: a systematic analysis of progress towards Millennium Development Goal 5	Hogan et al	2010	MMR worldwide		<a href="http://www.thelancet.com/journals/lanctl/article/PIIS0140-6736(10)60518-1/fulltext">http://www.thelancet.com/journals/lanctl/article/PIIS0140-6736(10)60518-1/fulltext</a>	
44	Achieving skilled attendance for all: a synthesis of current knowledge and recommended actions for scaling up	MacDonagh	2005				
45	Understanding pathways for scaling up health services through the lens of complex adaptive systems	Ligia Palina and David H Peters*	2011	complex adaptive systems (CAS) provides better models of pathways for scaling up.		<a href="http://seasochange.net/wp-content/uploads/downloads/2011/11/16_Johns_Hopkins_scaling-up-health_care_2011.pdf">http://seasochange.net/wp-content/uploads/downloads/2011/11/16_Johns_Hopkins_scaling-up-health_care_2011.pdf</a>	
46	National Safe Motherhood and newborn Health-Longterm plan (NSMNH-LTP	GoN, MoH, DoHS	2006	HR development, SBA strategy, equity access, quality of care, s. 5, the right to life and health, awareness, advocacy, decentralization.	Outputs, strategy s. 18	<a href="http://www.urfpa.org/sowmy/resources/docs/library/RO92_NIOH-Nepal_2006_SafeMotherhoodLongTermPlan.pdf">http://www.urfpa.org/sowmy/resources/docs/library/RO92_NIOH-Nepal_2006_SafeMotherhoodLongTermPlan.pdf</a>	
47	Annual report	DoHS	2010/2011	No of SBA trained, Ama Surakchya, three major strategies s. 61, equity and access program, problems constraints s. 74.	increase sama every year.	<a href="http://dohs.gov.np/?q=node/70">http://dohs.gov.np/?q=node/70</a>	
48	Five year operational plan for in-service training of skilled birth attendants	National Health Training centre	2009	majority of the population lives in rural areas and 81 percent of births take place at home, staffing.	strategy, paper,	<a href="http://www.safemotherhood.org.np/pdf/1535-year%20OP%20for%20SBA%20IST_20%20Mar%2009.pdf">http://www.safemotherhood.org.np/pdf/1535-year%20OP%20for%20SBA%20IST_20%20Mar%2009.pdf</a>	
49	Trends in Demographic and Reproductive Health Indicators in Nepal.	Macro International Inc, Calverton, Maryland, USA; Macro International Inc.	2007	Five figurer.			
50	Equity of access to health care services: theory and evidence from the UK	Goddard M, Smith P.	2001	Availability, Quality, Costs, Information	The key intervention will be to implement the national plan for safer motherhood which aims to significantly increase the number of births attended by skilled health workers, increase access to emergency obstetric care and improve maternal nutrition.	<a href="http://www.ncbi.nlm.nih.gov/pubmed/11566606">http://www.ncbi.nlm.nih.gov/pubmed/11566606</a>	
51	Health Sector Strategy: An Agenda for Reform	MoH	2004	precursor for the national policy on sba			



## APPENDIX F

### **Interview guide for key informants, Nepal**

Department of Geography, Norwegian University of Science and Technology  
Mphil Development Studies, Specializing in Geography

*Title: Review of strategies and interventions to increase utilization of skilled birth attendants in Nepal*

I want to thank the participant for their valuable time. This interview will be generating important data for my master thesis, however participation is voluntary and will remain anonymous. The information gathered from the interview is purely for academic purposes and will be treated confidentially.

1. What would you say are the most important interventions implemented so far in increasing utilization of skilled birth attendants?
2. What will you suggest is the most important factors contributing to the significant decline in MMR?
3. In your opinion, what would be the most effective future efforts towards 60 % coverage of births attended by skilled personnel, and why?
4. What would you characterize as the main barriers in getting 60% coverage, and why?
5. What do you think are the reasons for pregnant women not to deliver with skilled attendance, when it is both accessible and available?
6. Are you aware of any particular beliefs that would hinder a women in giving birth with skilled attendance?

## APPENDIX F

### **Interview guide Primary informants (SBAs), Nepal**

Department of Geography, Norwegian University of Science and Technology  
Mphil Development Studies, Specializing in Geography

*Title: Review of strategies and interventions to increase utilization of skilled birth attendants in Nepal*

I want to thank the participant for their valuable time. This interview will be generating important data for my master thesis, however participation is voluntary and will remain anonymous. The information gathered from the interview is purely for academic purposes and will be treated confidentially.

1. What kind of barriers do you think it is important to overcome to increase utilization of skilled attendance at birth?
2. What could be one in order to increase awareness about the benefits of skilled attendance, among women, especially in the rural areas?
3. What could be reasons for women not to deliver with skilled attendance, even when it is available and accessible?
4. What can be done in order to increase the security of HW in rural clinics?
5. How would you define appropriate quality of care in your work?



## APPENDIX F

### **Interview guide, key informant 1, WHO, Geneva**

#### **The data quality - how good are the data?**

Department of Geography, Norwegian University of Science and Technology  
Mphil Development Studies, Specializing in Geography

Title: *Review of strategies and interventions to increase utilization of skilled birth attendants in Nepal*

I want to thank the participant for their valuable time. This interview will be generating important data for my master thesis, however participation is voluntary and will remain anonymous. The information gathered from the interview is purely for academic purposes and will be treated confidentially.

1. Household questionnaire - and individual Questionnaire. How valid are these?
2. What are the ideal method of monitoring and reporting the numbers?
3. DHS developed in Nepali, could anything in translation miss out?
4. Why are DHS from 2011 categorized different than 2006?

#### **MMR**

5. MMR estimate or real numbers? How valid are these?
6. Better to use PM, the proportion of maternal deaths among deaths of women of reproductive age?
7. What are the strengths and weaknesses of this measure?
8. Coding of maternal death - any challenges in development countries?
9. Nepal reached target of reduction 75% - any comments?

## APPENDIX F

### **Interview guide, key informants 2, WHO, Geneva**

#### **The term skilled birth attendants - what does it mean?**

Department of Geography, Norwegian University of Science and Technology  
Mphil Development Studies, Specializing in Geography

Title: *Review of strategies and interventions to increase utilization of skilled birth attendants in Nepal*

I want to thank the participant for their valuable time. This interview will be generating important data for my master thesis, however participation is voluntary and will remain anonymous. The information gathered from the interview is purely for academic purposes and will be treated confidentially.

On SBA - and the role

1. The term "skilled birth attendant", is it a universal term - does it mean the same everywhere?
2. Is skilled birth attendance a problematic term to use? Why?
3. In an ideal world, who would assist deliveries?
4. What kind of minimum training are acceptable? In poorer, resource scarce settings?
5. Does a skilled attendant have the same professional status everywhere? Example Sri Lanka, Nepal etc.
6. Why is it important to recognize the identity and status of SBA?
7. When midwifery is not regulated at the national level as a distinct area of medical practice - what happens to the role of SBA?
8. How can this change?
9. How can we measure the skills of SBA? Any differences between H.I. country or L.I. country?
10. In many developing countries, friendliness and attitude problems arise between the patient and SBA. What could be done in order to reduce these problems?
11. How to improve on ethical considerations, in a society where women are on the bottom, with castes and ethnicity as influencing factors?
12. What are the greatest challenges in implementing SBA-improving strategies in developing countries today?

MMR

13. MMR estimate or real numbers? How valid are these?
14. Better to use PM, the proportion of maternal deaths among deaths of women of reproductive age?
15. What are the strengths and weaknesses of this measure?
16. Coding of maternal death - any challenges in development countries?
17. Nepal reached target of reduction 75% - any comments?

## APPENDIX G

### Consent form

Please consider this information carefully before deciding whether to participate in this research.

**Purpose of the research:** Review of strategies and interventions to increase utilization of skilled birth attendance in Nepal.

**What you will do in this research:** If you decide to volunteer, you will be asked to participate in one interview. You will be asked several questions. Some of them will be about your opinions of the strategies implemented. Others will be about your experiences and your suggestions on this field. With your permission, I will tape record the interviews so I don't have to make so many notes. You will not be asked to state your name on the recording.

**Time required:** The interview will take approximately 1 hour. No risks are anticipated.

**Benefits:** This is a chance for you to tell your story about your experiences concerning strategies to increase use of skilled attendance.

**Confidentiality:** Your responses to interview questions will be kept confidential. At no time will your actual identity be revealed. You will be assigned a random numerical code. Anyone who helps me transcribe responses will only know you by this code. The recording will be destroyed when my final paper has been graded. The transcript, without your name, will be kept until the research is complete.

The key code linking your name with your number will be kept in a locked file cabinet in a locked office, and no one else will have access to it. The data you give me will be used for a master thesis in Development studies, and may be used as the basis for articles or presentations in the future. I won't use your name or information that would identify you in any publications or presentations.

**Participation and withdrawal:** Your participation in this study is completely voluntary, and you may refuse to participate without penalty or loss of benefit to which you may otherwise be entitled. Also, you may choose to withdraw at any time without penalty or loss of benefit to which you may otherwise be entitled. You may withdraw by informing the experimenter that you no longer wish to participate (no questions will be asked). You may skip any question during the interview, but continue to participate in the rest of the study.

**To Contact the Researcher:** If you have questions or concerns about this research, please contact: Ms Christine Holst, Telemarksvingen 14, 0655 Oslo, Norway. Phone number: +47 48234044, Email: Christine\_holst@hotmail.com. You may also contact the faculty member supervising this work: Stig Joergensen, Professor, NTNU Dragvoll, NO-7491 Trondheim, Norway, phone number: +47 73591808, Email: stig.h.jorgensen@svt.ntnu.no

Whom to contact about your rights in this research, for questions, concerns, suggestions, or complaints that are not being addressed by the researcher, or research-related harm: Norwegian University of Science and Technology, Department of Geography, NO-7491 Trondheim, Norway, website: [www.ntnu.edu/geography](http://www.ntnu.edu/geography), Email: geo@svt.ntnu.no

#### Agreement:

The nature and purpose of this research have been sufficiently explained and I agree to participate in this study. I understand that I am free to withdraw at any time without incurring any penalty.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Name (print): \_\_\_\_\_