SAFE MOTHERHOOD:

Development and Women's Health in Childbirth

Binh Dinh province, Viet Nam

A thesis submitted in partial fulfilment

of the requirements for the degree of

Master of Philosophy of Development Studies

Massey University, New Zealand

Tricia Thompson

2006

Abstract

Safe Motherhood:
Development and Women's Health in Childbirth,
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Safe Motherhood is one of the most important aspects of women's health, and is crucial to the development of a country. Women can only contribute to the economic, political, social and cultural development of their country if they are well and healthy. This thesis reviews the literature on poverty, health and development to examine factors which contribute to this major global issue.

One of the eight United Nations Millennium Development Goals is to reduce maternal mortality by three quarters by the year 2015. Maternal mortality is the major cause of death among women of childbearing age in the developing world, with the World Health Organisation estimating that 600,000 women a year die as a result of pregnancy and childbirth (Levine et al., 2004; Thompson, 1999). Most of the deaths (99%) occur in developing countries and 80% of them are preventable, even in resource-poor countries (Lewis, 2003). The major direct cause of maternal mortality is haemorrhage at birth; if haemorrhage was reduced it would contribute significantly to reduction of maternal mortality (Wagstaff & Claeson, 2004).

In this research project the author worked with the Binh Dinh Provincial Department of Health to develop a more complete picture of the problem of haemorrhage in one rural province of Viet Nam. Ethnic minority women are among the poorest and most disadvantaged in the community. In this research they were shown to receive the least amount of preventative antenatal health care, and to be at greatest risk of haemorrhage.

The single greatest health factor shown to reduce maternal mortality is to have a skilled attendant at every birth who can prevent or detect problems early, and treat emergencies such as haemorrhage (Levine et al., 2004; World Bank, 2003; de Bernis et al., 2003; Kwast et al., 2003; Peters, 2000). In the second branch of the research, detailed observations were made of the technical skills of maternity staff to assess areas which could be improved through training programmes. These training programmes will enable the midwives to be better skilled and to provide safer care.

Recommendations from the research include that the Department of Health invest in strengthening basic training, and ongoing postgraduate in-service education, in specific technical areas of monitoring and treating haemorrhage; that logistical support and supplies be improved so that all centres have the necessary equipment and medications to be able to prevent and treat haemorrhage; and that the Department of Health apply to the Ministry of Health for permission to teach their staff a specific haemorrhage prevention management approach called Active Management of the third stage of labour.

Midwives in the province are eager for training and improved skills, and with the Department's support in these matters outlined above, they can achieve their desire of providing the best care they can to women in their communities.

Improving the technical skills of midwives is one important aspect of addressing the problem of maternal mortality. However other underlying causes are complex and include poverty and the low status of women in society; these aspects will be more difficult to overcome. Safe Motherhood is a right; women in every country should be able to expect to survive the natural process of childbirth. It will take a multi-layered approach to overcome this complex problem and allow women to be safe in childbirth.

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Acknowledgments

The author wishes to thank the many Vietnamese and New Zealand friends and colleagues who have been involved in bringing this thesis into reality. In Viet Nam, I am very grateful for the immense support over the whole four years from the Binh Dinh Provincial Department of Health, in particular to Dr Nguyen Thi Thanh Binh, Dr Ho Viet My, Dr Le Quang Hung, and Principal Nurse Mrs Nguyen Thi Thu; and to all the health centre officials and maternity doctors. Grateful thanks especially to all the birthing women and their families, for their consent to be involved in the research. *Chuc cac me va em be suc khoe!* (May all mothers and babies be well). I would love to list all of the duty midwives who looked after me so kindly, and all the midwives who were research assistants, but there are too many; my sincere thanks to all 250. Their excitement and desire to assist the first midwife they knew to work for a Masters degree was inspiring.

Cam on rat nhieu cho cac ban Nu Ho Sinh dao tao vien: (Thank you very much, to all my friends the midwife trainers): Doan Thi Tuyet **Mai**, Nguyen Thi Hoa **Hung**, Le Thi Hong **Mai**, Pham Thi Xuan **Canh**, Nguyen Thi Bich **Lan**, Nguyen Thi **Huong**, Le Thi **Thu**, Nguyen Thi Mai **Hung**, Luong Thi **Phuc**, Ho Thi Le **Thu**, Ho Thi **Le**, Pham Thi **Bau**, Vo Thi Hong **Nga**, Dang Thi Ngoc **Cam**, Nguyen Thi Mai **Thanh**, Dao Thi **Huong**, *va* Nguyen Thi **Di**. Special gratitude for your hard work over all the years, and especially as the research supervisors.

Last because most importantly, eternal thanks to the great team: Tran Thi Thanh Binh *va* Huynh Van Dong. *Chuc mung hanh phuc, suc khoe, va anh khang tinh vuong. Tricia nho qua em gai va anh trai!*

In New Zealand, thanks to Drs Cheryl Benn, Steve Haslett and Maria Borovnik at Massey University; to Clo Taylor and Jenny Hodgen, my colleagues from VSA Qui Nhon, and VSA Wellington.

Special, deeply grateful thanks and blessings to all those friends who supported me practically, emotionally and spiritually through the whole process of 'being with thesis' … Kati, Raewyn, Anne, Moira, Billy, Antona, Annette & John, Fay, Bill, Andrew Moira & the crew at Tauhara Centre for their care and a great den in which to hide away and write; to all my Heart Politics and Wananga mates: many thanks for your love and encouragement. Bringing forth a thesis is a bit like giving birth ~ you have to do it yourself, but it really helps to have good support!

Many thanks and great love to all the supporters. Tricia

Figure 1: Midwife trainers with Tricia and Binh

Source: Tricia Thompson

Glossary of abbreviations used

AN	Antenatal *(before birth)*
ASEAN	Association of South East Asian Nations
BP	Blood Pressure (vital sign)
CEDAW	UN Convention on the Elimination of all forms of Discrimination Against Women
CSW	Intergovernmental Commission on the Status of Women
CHC	Commune Health Centre
DHC	District Health Centre
D&C	Dilatation and Curettage *(of the uterus)*
DOH	Department of Health
FP	Family Planning
G	Gravida *(pregnant; Number of times a woman has been pregnant)*
G & P	Gravida and Parity (*Summary of a woman's pregnancies & births)*
GAD	Gender and Development
GDP	Gross Domestic Product
HDI	Human Development Index
HIV/AIDS	Human Immunodeficiency Virus / Acquired Immune Deficiency Syndrome
IM	Intra-muscular *(into a muscle)* (injection)
IMF	International Monetary Fund
IMR	Infant Mortality Rate
IUD	Intra-Uterine Device (contraceptive)
IV	Intra-venous *(into a vein)* (injection or infusion; *'drip'*)
ICPD	International Conference on Population and Development
MCH	Maternal Child Health
MMR	Maternal Mortality Ratio
MOH	Ministry of Health
NGO	Non Governmental Organisation

NZVNHT	New Zealand Viet Nam Health Trust
OECD	Organisation for Economic Co-operation and Development
P	Pulse (vital sign)
P.	Parity *(given birth;* No. *of times a woman has given birth before)*
PN	Postnatal *(after birth)*
PPH	Post Partum Haemorrhage
RH	Reproductive Health
SAP	Structural Adjustment Programme
SC UK	Save the Children (UK) *(An NGO)*
STI / STD	Sexually Transmitted Infection / Disease
TB	Tuberculosis
UN	United Nations
UNFPA	United Nations Fund for Population Activities
UNICEF	United Nations International Children's Education Fund
UNDP	United Nations Development Programme
VHW	Village Health Worker
VND	Viet Nam Dong (Vietnamese currency)
VSA	Volunteer Service Abroad *(a New Zealand NGO)*
WAD	Women AND Development
WB	World Bank
WID	Women IN Development
WHO	World Health Organisation

Chapter 1: Introduction

> My eyes knew I was in a different country during the orientation to my new job. It wasn't just the lack of privacy, with up to three women birthing or having vaginal examinations in one small open room together; it wasn't just the altars outside the Maternity Departments where the grandmothers were burning incense and praying for the mother and baby to be well; or walking past family members camped along the walkways or under trees, cooking food for the patient and hanging the washing on strings spread around the courtyard. What really hit me in my heart that this was a different, developing, country was when I reviewed the paperwork in the maternity departments. Many things in the obstetric chart were familiar of course but something on the front page stood out as being very different to the obstetric record I was used to in New Zealand. In the bottom right-hand corner was a section which was translated for me as "... about the death of the mother, was it on the labour bed, or within 24 hours of the birth, or later, and what was the cause." There isn't anything very spiritual about dying in childbirth. In New Zealand, as in most 'developed' countries, we have come to take the survival of the mother pretty much for granted. Not so here in Viet Nam.
>
> Tricia Thompson, personal journal entry, 08.11.2001

This thesis presents the information collected during six months of focused research during my four years of living and working in Viet Nam, a New Zealand volunteer employed by the Binh Dinh Provincial Department of Health as a midwife advisor. The Binh Dinh Provincial Department of Health in central Viet Nam has a relationship with New Zealand and New Zealanders which stretches back to the 1960s. As part of a government aid project, New Zealand (NZ) had funded the building of the provincial hospital in Qui Nhon, the capital city of the province. Later a series of NZ civilian medical and surgical teams were based at

that hospital during the war years between 1963 and 1975. From 1989 some of those doctors and health workers returned to the place they had worked and re-established relationships which were formalized in the creation of the New Zealand Viet Nam Health Trust (NZVNHT). New Zealand became further involved when from 1992 Volunteer Service Abroad (VSA) began placing NZ volunteers in health, education and rural development projects in the province. The placements were based on requests from provincial government departments and organisations.

Maternity was identified by all parties concerned as one important area of health where intensive input could result in improved outcomes, and the Binh Dinh Provincial Department of Health – New Zealand VSA Maternity Project commenced in 1999. As a midwife with more than 20 years experience in settings ranging from homebirths to working in remote areas of Australia, I worked as the midwife advisor for this project from 2001 to 2005.

Background to this area of study

Without health, a country and its people cannot develop. Strengthening women's health is a vital cornerstone for improving the health of a people. Improving women's health enables them to contribute both directly and indirectly to their nation's development: directly through the economic and social contributions they can then make; indirectly through being better able to support the health and welfare of their family in the community. Women's health and development is a 'complex interrelationship between the health of women and their social, political, cultural, and economic situation' (McElmurry et al., 1993: 11).

Safe Motherhood is one of the most important aspects of women's health, and the importance of Safe Motherhood to the development of a country is reflected in the United Nations Millennium Development Goals (MDGs). One of the

eight MDGs is to reduce maternal mortality by three quarters by the year 2015. Death of a woman in childbirth, or death of a new mother, is of course a heavy burden for her family, but also an immense loss to her community and society. But maternal deaths are just 'the tip of the iceberg of maternal disability' (Lewis, 2003: 29); it is estimated that for every maternal death, between 30 and 50 other women experience maternal morbidity or ill-health, which also has serious consequences (Levine et al., 2004: 48). Without good health, women cannot participate fully in their family, or in their community and its development.

The World Health Organisation estimates that almost 600,000 women die each year from complications of pregnancy and childbirth, 99% of them in developing countries (Levine et al., 2004: 47; Thompson, 1999: 146). Sadly, it is estimated that more than 80% of those maternal deaths are preventable, even in resource-poor countries (Lewis, 2003: 28). Why do women still die so often in childbirth in some countries of the world, but not in others? There are many underlying factors which contribute to such high maternal death rates in developing countries, some of which are discussed in this thesis.

A maternal death is more complicated to define than many imagine. The definition must encompass not just death of women in childbirth, but also from complications of pregnancy, miscarriage, abortion, premature birth, from ectopic pregnancy (where the foetus implants outside the uterus usually in the fallopian tubes), and from complications after the birth. It must grapple with such issues as to whether to include the death of a pregnant or recently pregnant woman who died from homicide or suicide, which may perhaps have been fuelled by issues related to the pregnancy (AbouZahr, 2003: 3). The World Health Organisation Tenth Revision of the International Classification of Diseases (ICD-10) has defined a maternal death 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' (AbouZahr, 2003: 2).

Globally there are five major direct causes of maternal mortality: haemorrhage, infection, complications from unsafe abortion, eclampsia (toxaemia or high blood pressure), and obstructed labour and consequent ruptured uterus. Across the world one of the highest ranked causes is always haemorrhage: women who bleed too much. Although a woman may haemorrhage at other stages of her pregnancy, the most frequent occurrence of this complication is at or immediately after giving birth. This is termed 'Post Partum Haemorrhage' (PPH).

The process of labour and childbirth is technically divided into three stages. The First Stage of labour is the time during which the cervix (the opening of the uterus) gradually opens, or dilates, by the action of the uterus muscles contracting and shortening the muscles of the cervix. Second Stage is the time when, because the cervix is open, the uterine contractions encourage the baby to descend from the uterus through the mother's pelvis and vagina and so be born. Third Stage is when the uterine contractions cause the placenta (afterbirth) to separate from the wall of the uterus and be delivered. This third stage is often forgotten by parents and families who are usually joyfully busy exploring their newborn child; but it cannot be forgotten by maternity staff, as the third stage is the most common time for a PPH to occur.

The issue of haemorrhage at birth is a complex one. Unfortunately there is not one single cause which could lead to a simple, single solution. Rather, there are numerous factors, or combinations of factors, which may contribute to a woman suffering a PPH at birth or a maternal death from PPH. These factors may loosely be classed into 3 groups: external and political factors, ones related to personal and health issues, and those directly related to the health system. Included within a broad 'external issues' grouping would be such factors as

poverty, education, status of women, politics, funding distribution, roads and transportation systems. Factors more directly related to the woman include personal and health issues such as concurrent illness, nutrition, anaemia, obstetric history such as the number of previous pregnancies, and knowledge and cultural beliefs about health and pregnancy. Within the health system, factors such as the provision, accessibility and cost of antenatal and other maternity services, quality of staff training, and the knowledge, technical skills, practices and attitudes of health service workers may have an effect on maternal outcomes. Any combination from those 3 groups or a number of other related factors may contribute to what is often a 'complex chain of events' (Royston and Armstrong, 1989: 99) leading to poor maternal outcomes at birth.

Inevitably there will be interlinks between those groupings of factors. As a simple example, the fact that a woman may be malnourished and anaemic could be considered simply a personal health issue; however there may be other contributing factors. Are women culturally precluded from eating certain (iron-rich) foods in pregnancy? External or political aspects could be involved if the low status of women within that society means that the less nourishing foods are eaten by the women, or family spending on health needs for women is reduced; poverty and globalisation of the agricultural economy may mean certain valuable foods are not locally available or affordable. There may be health system deficits if staff lack knowledge and counselling skills to advocate nutritious iron-rich diets for women. Poverty and poor infrastructure may mean that women cannot access or afford to access health care and receive preventative education and medications.

Purpose of the research component of this study

I had already been working in Binh Dinh province for more than two years and had developed relationships of trust within the local health system, when the

Provincial Department of Health requested me to extend my assignment for another two years in order to guide a Prevention of Post Partum Haemorrhage Project throughout the province. If haemorrhage at birth (Post Partum Haemorrhage or PPH) is the leading cause of maternal death, then reducing PPH would be an important factor in contributing to Safe Motherhood in the province.

Initial discussions with the Department began with an overview of international research about PPH and possible contributing factors, and a conference to bring together the province's maternity practitioners to discuss the issues. It became apparent that there was a lack of full local data available about the problem. The importance of background data is stressed by AbouZahr (2003: 1) when she writes: "Sound information is the prerequisite for health action: without data on the dimensions, impact and significance of a health problem it is neither possible to create an advocacy case nor to establish strong programmes for addressing it." There was obviously a need to obtain specific local data about PPH: the rate and severity of PPH, and outcomes for women who suffered this complication; factors that might contribute to PPH. This information was needed to provide the starting point from which to develop specific local strategies to overcome the problem of PPH, as well as to provide a baseline to assess future progress against.

The Department was keen to have 'the volunteer worker' become 'the researcher' if doing research for a Masters degree would serve the dual purpose of keeping me working in the province on the project and at the same time provide the Department with useful information. The Department saw another useful side effect to having locally conducted research that was guided and approved by an overseas university. There had been a recent national push from higher government levels in Viet Nam for research in health as part of improving practice, but little guidance in conducting such research. The Department

welcomed the idea of having a working example of how one foreign researcher went about the task of designing and carrying out a research project. In fact over the ensuing 2 years I fulfilled a considerable educational role, with many formal and informal talks plus written reports and articles about the research process, including the 'new' concepts of ethics and informed consent involved in this research.

It emerged that the Department had conducted a research project to determine rates and causes of maternal mortality in the province for the years 1998 to 1999, and an unpublished report of this research was available in Vietnamese (Dr Nguyen Thi Thanh Binh, 2001). This survey had confirmed that haemorrhage at birth was the major cause of maternal mortality in the province, accounting for a third (33%) of all direct maternal deaths (Nguyen, 2001: 25). However, there was no information about the rate of women who had 'near misses' at birth – that is, who survived a haemorrhage, but whose health may have been affected by it (maternal morbidity). There was also no data about the broader external factors that may contribute to the problem. More complete information would enable the Department to develop specific plans to help save mother's lives in the future, and to give priority to interventions with high impact.

Research questions

- The first research question was how many women had a haemorrhage at birth (PPH), and of those who did, how many women died (Maternal Mortality), and how many had a PPH but survived (Maternal Morbidity). The second part of the question was did those women have any risk factors in common, compared to women who did not have a haemorrhage. By learning more quantitative information about the rate, outcomes and risk factors of women who had a haemorrhage I hoped to be able to draw up a list of locally confirmed factors to alert staff to women at higher risk of haemorrhage, and

to know where to target education programmes to be able to reduce risks and improve health for women in future

- The second research question was what were staff practices in management of third stage of labour (delivery of the placenta) and whether staff were skilled at this management, particularly in preventing, diagnosing, treating and monitoring haemorrhage at birth. This question aimed to learn more about staff practices in the management of third stage of labour, and whether there were any areas that could be improved through technical skills training to lead to better outcomes for women. Skilled attendant at every birth has been shown to be the single most important way to reduce maternal mortality (Levine et al., 2004: 48; World Bank, 2003: 22; de Bernis et al., 2003: 39-40; Kwast et al., 2003: 52; Peters, 2000: 3).

Structure of the thesis

This thesis have been organised into eight chapters. Chapter one is an introduction and general background to the thesis, my involvement as the researcher, and where the need for the research arose. It also outlines the research questions which were planned. The thesis then journeys into the theories and literature on development; health, poverty and development; and Safe Motherhood, to illustrate why health, and in particular women's health and Safe Motherhood, are key development indicators for any country. In chapter three the reader is introduced to Viet Nam and to Binh Dinh province, in which this research is based. Through learning something of the factors which have gone towards making Viet Nam the country that it is today, and where it sits within the world, it will be easier for the reader to place the research into a context. The fourth chapter extends the information about Viet Nam, looking specifically at the issues of women and health in Viet Nam today.

Chapter five outlines the methodology of the two research surveys which were undertaken, how they were designed, how the methodology worked in the field, and the ethical considerations involved. Chapter six presents and interprets the findings from the two research questions, and in the following chapter these findings are discussed in relation to the relevant literature on development, health and poverty. In chapter eight, the relevant theory and findings from the research are reviewed and conclusions made. Several recommendations are proffered from the research which will assist towards reducing haemorrhage at birth, so reducing maternal mortality and contributing towards Safe Motherhood in Binh Dinh Province.

Figure 2: Family Planning poster in the countryside

Source: Tricia Thompson