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# 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  
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## **Abstract**

### **Safe Motherhood: Development and Women's Health in Childbirth, Binh Dinh province, Viet Nam**

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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**Figure 1: Midwife trainers with Tricia and Binh**



Source: Tricia Thompson

## Glossary of abbreviations used

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

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

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**Figure 2: Family Planning poster in the countryside**



Source: Tricia Thompson

## **Chapter 2: Literature Review: A Theoretical Framework**

This chapter is divided into three sections, as I introduce the three areas of literature that provide the framework for this thesis. In the first section I examine various theories and practices of development that have evolved and in particular their relationship to women. In the second section I will look at development of nations, such as Viet Nam, which have communist or socialist backgrounds, and the implications this has for women. The third section of this chapter examines the theme of Safe Motherhood which has emerged from the women, health and development theory. My bias is that I am a midwife, and believe women are the key to the health of infants, children, families and society. Safe Motherhood, therefore, is crucial to the development of a nation and is the focus of the research in this thesis.

### **Development Theory**

What is meant when a nation is talked of as developed, under-developed, or developing; often what is meant is the wealth or poverty of a nation, the economy and economic growth, usually measured by growth in Gross Domestic Product (GDP) per capita (Tang, 2000: 3). GDP is a calculation method used in national accounting to assess consumption of goods and services, investments, imports and exports. Growth in GDP is often used, particularly by groups such as the International Monetary Fund (IMF), Organisation for Economic Co-operation and Development (OECD), the World Bank, and the United Nations (UN) to indicate the standard of living in a country's economy, and to compare the standard of living between countries (Chow & Lyter, 2002: 14). Although this is not actually what it is designed to measure, it is true that if a country's GDP is increasing then standards of living will generally also be increasing. But GDP is an imperfect economic indicator; it does not take into account the informal

economy of bartering, of unpaid domestic labour and community service, undeclared income, or the black market. Nor does it show the level of inequality of income that may exist within a country (Anderson, 1986: 22 - 24). I agree with the many authors who argue that 'development' should encompass more than just economic growth; social factors, the quality of life, and protection of the environment are also important development indicators (Todaro & Smith, 2003: 360; Granato et al., 1996: 266; Anderson, 1986: 65, 91). Environmentalists say GDP takes no account of the environmental cost of development and whether it is sustainable, whether a country's natural resources are being overexploited, or the future cost that a country will have to face for repairing environmental degradation, from either agriculture or industry (Braidotti et al., 1994: 92; Anderson, 1986: 36).

Issues such as education and literacy, health, and the equitable distribution of wealth within a society, are not just social issues, they are the basic objectives of development (Todaro & Smith, 2003:360; Anderson, 1986: 55-64). Education and literacy amongst girls and women are important in the development of a nation. Female literacy has been shown to influence use of contraception and therefore the birth rate, labour force participation by women and therefore income, and the status afforded to women in a society (World Bank, 2003: 18; McMurray et al., 1998: 7; Anderson, 1989: 62-63). The better the education of a mother the less children she has and the better the health of those children (McKay, 2005: 117; Todaro & Smith, 2003: 367; Thomson, 2001: 79; Jeffery & Basu, 1996: 15). The Maternal Mortality Ratio and the Infant Mortality Rate are particularly sensitive health indicators of development, as the mother, the foetus, and the infant in the first year of life, are the first to be affected by detrimental changes in society. These two mortality rates reflect conditions of nutrition, sanitation, clean water supply, infectious disease, access to family planning, health of the mother, education, the quality of health and medical services, and in

general the socioeconomic development of a society (UNDG, 2003: 31, 36; Thompson, 1999: 146; Anderson, 1986: 63). The UN Human Development Index (HDI) has been used since 1990 to try and reflect some of these broader dimensions of development. The HDI measures the achievements of a country in three basic areas of human development: a long and healthy life measured by life expectancy at birth; education and knowledge, measured by adult literacy, mean years at school, and primary secondary and tertiary education enrolment rates; and standard of living, measured by gross GDP per capita, adjusted for purchasing power parity (PPP) (Datta, 2002c: 76).

I have described some of the issues about how to measure development, now I will discuss how the concept and theories of 'development' arose. Development theory emerged after World War Two. The United States (US) gave huge amounts of aid to Western Europe through the Marshall Plan; this meant that damaged infrastructure was repaired, new industrialisation developed, and these countries were quickly able to achieve improved economies. This successful rebuilding suggested that similar growth could be achieved if applied to poor countries of the world, loosely termed the 'Third World' (Seligson, 2003b: 3). These countries were typically poor, traditional societies, reliant on agriculture, with little or no industry beyond the home. Many were in the process of decolonisation or fighting for it, learning what it was to build a nation. Foreign aid, including military and food aid, became a political tool used by both the USA and USSR to try and influence nations of the Third World in a cold war competition (Momsen, 2004).

### ***Modernisation Theory of Development***

Modernisation theory proposed that development in Third World countries would be achieved from increased economic growth, with increased production using modern technology. A joint social transformation would see the traditional

society move through a series of set stages to become a modern society that was developed, industrial, capitalist and consumerist (Chow, 2002c: 15; Sach, 2001; Rostow, 1990: 124-129; Brydon & Chant, 1989: 6). Modernisation theorists saw under-development as a short-term stage; eventually all countries would be rich; when just depended on when they entered the development process (Rostow, 1990: 123). This theory had an innate belief that economic benefits would 'trickle down' to the poorest once the society achieved sustained economic growth and a secure consumer base, and thus overcome poverty and bring about a better quality of life for all (Storey et al., 2005: 32; Chow & Lyter, 2002: 15; Jennings, 1996: 108; Brydon & Chant, 1989: 6; Sen & Grown, 1987: 17). The new face of conservative modernisation is seen in the last few decades with neo-liberal economic policies that promote intensive market and trade liberalisation, privatisation, reduced state spending on health and education, and structural adjustment policies (Storey et al., 2005: 32; Hedman et al., 1996: 14). Neo-liberal modernisation is the predominant policy at such multilateral development organisations as the World Bank (WB), International Monetary Fund (IMF), and is a precondition for loans from them (Storey et al., 2005: 32; Black, 1999: 25). These institutions have undoubtedly contributed to Viet Nam decision maker's pro-modernist leanings (Vu, 1994) as these policies are recently in effect in Viet Nam, as will be discussed in chapter 3.

### ***Dependency School of Development***

This development model, sometimes called underdevelopment, emerged in Latin America in the 1960s and 1970s in the context of the social upheaval occurring there. Based on Marxist theory, it premises that colonialism, and later financial-industrial dominance, and trans-national and multi-national corporations penetrating a poor country's economy, had created systems of exploitation which led to dependency. The economy of that country was subject to an outside economy as they relied on rich countries to buy their products to have the foreign

exchange necessary to pay debts, and provide infrastructure. Although there may be short term benefits, over the long-term this economic dependency would slow the economic growth of poor countries, and the increased levels of foreign investment would lead to increased inequality of income distribution within the country (dos Santos, 2003: 277; Alderson & Nielsen, 2003: 357; Brydon & Chant, 1989: 6). Dependency theorists critiqued the capitalist economic system, the failure of modernisation policies to 'trickle down' benefits to the poor, and that much foreign finance and aid was in fact disadvantageous, exploitative, or was 'tied', for instance to the importation of the donor's foreign technology not suited to the developing country, or to patented techniques (dos Santos, 2003: 283; Chow & Lyter, 2002: 18). Dos Santos believed that this dependency could only be overcome with changes in internal social structures, and that revolution, from the left or right, often occurred (dos Santos, 2003: 277). Elements of this dependency theory can be applied to Viet Nam's situation as will be shown in chapter 3.

### *The People-Centred Development Paradigms*

Since the 1990s there have emerged several new approaches loosely termed 'people-centred paradigms' which have influenced how development is practiced. Where modernisation and dependency both looked to external solutions and 'top down' development, these people-centred approaches urge 'bottom up' development, seeing local people as the experts who intimately know local ways, culture, and needs; their knowledge should be respected and play the key part in development planning (Chambers, 1997; Brydon & Chant, 1989: 7; Chambers, 1983). The differences can be shown in the key vocabulary of these paradigms, which feature concepts such as participation, sustainable, basic needs, environment, women, empowerment, and gender.

### *Development and Women*

In the early days of development women were seen only as 'mothers'. While men were targeted through economic and agricultural project work using new technology, women's needs were presumed to be catered for through welfare projects focusing on maternal and child health, family planning, nutrition and hygiene (Patton, 2002: 17; Jennings, 1996: 108; Braidotti et al., 1994: 78; Moser, 1993: 60; Taplin, 1989: 2). As mothers, women mattered because of their reproductive effect on population, or overpopulation, of the Third World. Marxist theorists saw reproduction as 'the key to women's subordination to men' (Momsen, 2004: 48). Reproduction is not just biological reproduction, childbearing and early care of infants; it is a broader sociological concept, and includes care of the household, housework, preparation of food, care of the sick and elderly, responsibility for health, education and socialisation of children, nurturing wider family, kinship, and neighbourhood networks, and community social obligations. All of this work is important, but is usually seen as women's work and has no economic value attached to it (Momsen, 2004: 48). Although the UN had set up an intergovernmental Commission on the Status of Women in 1946, there was little attention paid in development to the realities of women's lives, or to their economic or political needs, and the fact that throughout the developing world, women were the group most likely to be living in poverty (Datta, 2002: 76; Jennings, 1996: 108; Massiah, 1993: 289). In the 1960s contraceptive distribution programmes were initiated to lower birth rates; a series of UN conferences on population looked at strategies to reduce birth rates (McMurray et al., 1998: 4; Moser, 1993: 60). At the first World Population Conference in Bucharest in 1974, the Indian delegation famously spoke out, saying that 'development is the best contraceptive'; that it was also necessary to look at issues of food shortage, underdevelopment and poverty, not just distribute contraceptives (McMurray et al., 1998: 6).

In the 1970s the new approach of 'Women in Development' (WID) saw a shift from women just as reproducers; women were now expected to be 'producers', and incorporated into the capitalist market place as a way of overcoming their poverty. WID did not question the benefits of the Western, Modernist style of growth and development (Chow & Lyter, 2002: 25; Jennings, 1996: 109; Taplin, 1989: 2; Sen & Grown, 1987: 15). Development could be seen as based on western models of modernisation with male dominated production, and economic growth measured by GDP; it had not taken into account that women already were producers, particularly in the agriculture and food sectors. Ester Boserup's 1970 book 'Women's Role in Development' was very influential in making more visible the fact that women already contributed to the national economy. Women's production had been 'invisible' because it was usually in the household, on the land, or in trading, and that work in the informal sector was unpaid (Datta, 2002; Chamberlain & Howe, 1995; Braidotti et al., 1994; Moser, 1993; Massiah, 1993; Taplin, 1989). As well, the UN Decade for Women (1976 – 1985) and the International Women's Conferences put women's issues and development into the international arena. Women from the Third World were able to share their experiences, attention was focused on the negative affects development had had on women, and on women's needs in development (Chamberlain & Howe, 1995: 53; Braidotti et al., 1994: 80; Charlton, 1984: 32).

Utilising the WID approach of women having jobs in production, women in the 1970s made some gains, but many of these were lost in the structural adjustment economic policies in the 1980s (Jennings, 1996: 114; Braidotti et al., 1994: 80; Sen & Grown, 1987: 18). The WID approach of women's production and income did not address the issues of women's inequality in society; that men often controlled women's income within the household; that women's higher rates of illiteracy, and lack of skills and training meant they were likely to be in low paid, low status jobs; that women's wages were often lower than men's for the same job; or that

because of unequal division of labour within the household, women would still have to do most household and family work as well as their new production work. This 'double burden' would make heavy demands on women's time and health (World Bank 2003: 18; Jennings, 1996: 109; Massiah, 1993: 1; Sen & Grown, 18; ICPE, 1986: 14). Women and Development (WAD) theory emerged in the late 1970s from Marxist critique of both modernisation and Women in Development; WAD saw the capitalist oppression of the working class, including working class women, as also holding women back (Chow & Lyter, 2002: 26).

### *Development and Gender*

Despite all the writings and conferences, at the Fourth World Conference on Women at Beijing in 1995 it was seen that women's economic and political situation had, if anything, worsened over the previous 20 years (Sen & Grown, 1987: 16; Anand, 1983: 5). Focussing on women alone was not enough, the relationships between men and women had to be understood; their different gender roles and functions in society in work, home and community and how that affected their lives. This shift to 'Gender and Development' (GAD) reflects that the development process is not gender neutral; it affects men and women in different ways. Women are usually subordinate to men; GAD aims for full equality for women as well as economic development (Momsen, 2004; Roces & Edwards, 2000; Jennings, 1996; Braidotti et al., 1994; Moser, 1993). Empowerment is a term often used now in development; do women have the 'power to' improve their lives, to bring about changes in situations of inequality or discrimination. There needs to be international, national and local level systemic support for these gender issues to be addressed; laws and policies for women to be free from violence and oppression. Only then can women be self-empowered, and step into leadership in work settings and in the community. If women had increased power, it would be shown by increased decision-making

authority in family and community (Momsen, 2004; Datta & Kornberg, 2002: 163-5; Patton, 2002: 14-16; Roces & Edwards, 2000: 11; Jennings, 1996: 107).

The Women in Development (WID) approach, focusing on women's immediate and practical needs, is still frequently used in development projects today as it is seen as 'safer' than the Gender and Development (GAD) approach. GAD challenges the status quo of existing hierarchies and structures, and points out that women *cannot* make fundamental changes to their lives only by economic gains; they also have to have more power, status and decision-making authority to be empowered (Jennings, 1996: 116). It will be a slow process to obtain real change. Too often development projects and donors use the GAD terms loosely, as in the past they have used 'participation' terms, or now 'poverty alleviation' terms, as is argued below. If, despite using the terms, they do not have a clear understanding of them, fail to provide sufficient funding, or in other ways fail to implement them, real change does not occur. This is exacerbated in relation to GAD, as too often countries have a declared national policy of commitment to equality for men and women, but in reality it is not adhered to (Thomas, 2004: 4; Williams & McIllwaine, 2003: 95-96; Jennings, 1996: 114). Viet Nam has examples of this, as I will outline in Chapter 4.

### ***Development and Poverty***

In the last decade many development agencies have begun to focus on poverty and poverty alleviation as a development strategy (Storey et al., 2005: 30). An example is the first UN Millennium Development Goals which is to eradicate extreme poverty and hunger by 2015 (UN, 2000: 1). Poverty has been described as being deprived of basic needs for survival and security such as daily food, stored food, nutrition, safe water, shelter, clothing, access to acceptable basic education and health care, minimum savings to cope with contingencies, and control over your body; but poverty also involves less tangible factors such as

being vulnerable, powerless, isolated, and lacking choices (Storey et al., 2005: 39; Murthy et al., 1999: 1; Chambers, 1988; Buvinic, 1983: 24). Although it may be clear what poverty is, there is no consensus about what causes poverty and therefore what should be done to overcome it. This leads to a lack of coherency in delivery of aid programmes, and between donor agencies and recipients (Storey et al., 2005: 31). Although poverty-alleviation has been promoted, particularly by the World Bank and the IMF, as a new approach it has not actually moved away from the prevailing neo-liberal modernist approach; economic growth, the market, and globalisation remain the goals. This tends to 'de-politicise' poverty, and fails to address critical concerns such as global inequality, corruption, female oppression, or the effect of increased poverty that is occurring from the very policies of structural adjustment and globalisation that are being promoted to overcome it (Storey et al., 2005: 35-42). This would require real depth of change in approach, not just 'putting old wine in new bottles' as the World Bank's neo-liberal approach to poverty reduction has been described (Wong, 2003: 307).

The UNDP has a human poverty index (HPI) measuring issues such as the percentage of people who die under 40, under 5 year olds who are malnourished, adults who are illiterate, lack safe water and access to health services. This is an attempt to look more deeply into the wellbeing of a household, and what income can achieve for those family members, rather than just seeing income as the measure of poverty (Murthy & Sankaran, 1999: 11-15). There are arguments as to whether there is a feminisation of poverty; the UN claim that 70% of the world's poor are women, but Murthy & Sankaran point out that the evidence is inconsistent. Female headed households are often the poorest households, but in fact it is single parent households that are the poorest, whether male or female headed; it is just that there are many more female single parents (Murthy & Sankaran, 1999: 5, 28). Those who argue that poverty is a gender issue do so because women in most parts of Asia receive less income, have less assets, less

access to capital or credit as they have less collateral, being less likely to own or inherit land, than men (Quibria, 1993: 10-18).

There is certainly a rural bias to poverty in almost all Asian countries, and within that there are more poor rural women than poor rural men, as women are more dependent solely on agricultural work; this is exacerbated when women are in landless households, or ones with small or marginal land holdings (Murthy & Sankaran, 1999: 29, 30). Rural poverty is highest amongst those living in remote or environmentally fragile areas; in Viet Nam as in other countries, this is often ethnic minority people, who are then the poorest of the poor (Murthy & Sankaran, 1999: 35). Poverty in urban areas is growing however, particularly amongst women in casual work, who have been laid off due to structural adjustment and in economic downturns, and women in the informal work sector who are often migrants from rural areas (Murthy & Sankaran, 1999: 33, 36).

Poverty is the most important root cause of poor health in developing countries, and ill health is a cause of poverty (RHAG, 2004: 1; Todaro & Smith, 2003: 361). Whatever the long term solutions to overcoming poverty, investing in health is one way to assist in reducing poverty (RHAG, 2004: 1). Increased household income alone does not always translate into improved health, as there are many competing calls for that income. It is important that the state continues to invest in provision of quality health care systems; there should be particular emphasis on reaching the poor, not just having services available to those who can afford them. There should also be a focus on preventative health care, not just on hospitals and curative care (Gaiha, 1993: 175). The poor, young, elderly, homeless, and the pregnant have special vulnerability to ill health, compared to young adults and the more well off members of the same community. This vulnerability can often be measured as degree of risk; for pregnant women, there are some risk factors which make them at higher relative risk of maternal

mortality or maternal morbidity (Backett et al., 1984: 1-3). This issue of high risk factors are a part of this thesis's research focus, and will be discussed later in chapter 5. Meanwhile, in this next section of the chapter I will focus on particular social and health issues related to women in socialist countries.

### **Communism, socialism, and women**

Viet Nam and China are two examples of regimes which emerged last century as the result of Marxist theory-based revolution. 'Communist' refers to the political structure, party and state, dominated by the Communist Party; 'socialist' refers to the regime in Viet Nam; in Marxist theory, socialism is the stage prior to communism (Tsai, 2002: 65). Viet Nam and China have another similarity in that both societies are influenced by Confucian philosophy. Pre-Revolution women, particularly peasant women, were oppressed by political, religious, and clan authorities and by their husbands; in China, Mao wrote that the oppression of women was a result of the oppressive feudal and patriarchal authority systems then in place, and that these would be overcome in the socialist transition (Tsai, 2002: 67). In both countries, when the communists came to power women were declared equal, granted full legal rights, expected to participate equally in production. Women would seem to be empowered by revolution; yet after decades of communist rule, although there are improvements, there are still striking economic and social gaps in equality, and women have been disempowered in the area of reproductive choice (Tsai, 2002: 47; Taplin 1989: 89).

So why have gender inequalities persisted in socialist countries, despite the socialist ideological commitment to the empowerment of women? Women in Development (WID) theorists look at the effects of capitalist development on women, and argue that development increases women's burden, as they participate in waged labour yet continue their role of unpaid household and

agricultural work (Boserup, 1970). Marxists and neo-Marxists look at the oppressive structures of capitalism as the cause of women's inequality. But it is not only state and economic policies which affect women's roles; the household also has a strong effect. As an example, during early Maoist rule in China land reforms gave all family members a small plot of land, allowing all women to have access to income; but that did not occur because Confucian family values ensured that in fact a husband controlled his wife's property (Tsai, 2002: 52). An example of women's discrimination is the gendered difference in compensation for agricultural work during the communal farming era. Because women were still responsible for domestic work, they were seen to be not doing as much agricultural work; thus they earned only one half to two thirds the work-points of men. Instead of this situation being addressed, it was justified, on the grounds that it was rural women's duty and obligation to participate in agricultural production, as well as to bear and raise children and to do household chores (Tsai, 2002: 53). Men's agricultural work was more highly valued and compensated, due to the perceived limited physical capability of women; this despite 'women's work' including physically demanding tasks such as sowing seed, transplanting seedlings, harvesting, and carrying manure to the fields (Tsai, 2002: 53; Mu, 1996: 106).

Although socialist slogans proclaim the equality of women, traditional Confucian beliefs about gender roles remain strong, particularly in rural areas. Gender inequalities persist because of the patriarchy which is deeply embedded in households, as well as within the state which is officially supporting reform. Most state decision makers are men, and are products of that traditional society; they are influenced by it even as they attempt to change it (Tran, 2004: 137; Kelly, 2004: 122; Chow, 2002c: 23; Tsai, 2002: 48, 51; White, 1987: 227). Although in theory socialist and communist states would provide greater equality for women this has not eventuated in Viet Nam and China; many women are still in poverty,

and discriminated against. While the government in Viet Nam officially supports the principle of equality, that does not reflect life for all Vietnamese women today, as I will discuss in chapter 4.

Under socialist rule, marriage law reforms outlawed blatant abuses against women such as foot-binding in China, and child brides, concubines, polygamy, and dowries in both countries (Tsai, 2002: 51; White, 1989: 45). However the modern idea of marriage based on love alone without prior parental approval was 'scandalous' to most Vietnamese (White, 1989: 176). Women were allowed to seek divorce, and property was to be divided equally in divorce; this also was controversial. In China, more than half a million woman sought divorce in each of the first five years of the new marriage laws; many women were threatened, some committed suicide. It highlighted the depth of tradition, and how difficult such reforms would be to achieve (Tsai, 2002: 52). It also drew attention to the reality that the traditional family fulfils some functions that the state does not; the family provide care for children, the aged, sick and disabled, as well as financial support and security to its members (Tsai, 2002: 52; Charlton, 1984: 33).

### ***State Control of Women's Reproductive Rights***

When I was newly living in Viet Nam, one of the questions people would often ask me was 'How many children does *your* government let you have?' I was taken aback; it is not usual in our country to expect that the state would have *any* say in women's reproductive rights. Yet in some countries, particularly communist and socialist states, that is common. In the 1980s Romania, for instance, forbade abortion and levied fees from childless under-25 year olds, in an effort to boost the number of workers (Momsen, 2004: 58; Jancar, 1987: 71), while China instituted a One Family - One Child policy in 1979 to try and limit population growth in order to ensure sustainable economic growth. In both cases, the state assumed direct control of reproduction. Campaigns targeted women as having a

patriotic duty to, as required, enhance or limit their family; family planning cadres kept a close eye on women's menstrual cycles. China has one of the highest rates of contraceptive use in the world, with regulations requiring a woman to have an Intra-Uterine Device (IUD) inserted as contraception after one child, to be sterilised after two children, and for abortions, sometimes late in pregnancy, of unapproved pregnancies (Momsen, 2004; Tsai, 2002: 57-8; Dalsimer & Nisonoff, 1997: 286; Taplin, 1989: 104; Davin, 1987: 113-115). There is a coercive system of punishments, or rewards for compliance. Economic sanctions, often aimed at women rather than men, include payment of a 'social compensation fee' for excess children to compensate the state for the cost of another child in the country, reduced right to collective grain in times of natural disaster, reduction in the family grain ration or having to pay a higher price for grain if the family has a surplus child, as well as loss of jobs, demotion or non-promotion, or reduction in wages. The family also has to pay all medical and education expenses for excess children, and they have lowest priority to enter schools or hospitals. Conversely, single child families were rewarded with cash subsidies, free health and education for the one child, additional private plots of commune land, preferential state housing, and old age pension subsidies (Momsen, 2004: 55; Tsai, 2002: 57; Dalsimer & Nisonoff, 1997: 286; Mu, 1996: 109; Davin, 1987: 113). In Viet Nam the state's reproduction policies have been a little less draconian, with 'one or two' children permitted, although there have also been sanctions for non-compliance. The effects of these policies will be discussed in chapter 4.

In a Confucian, patrilineal, society which desires sons, this has led to high rates of abortion including sex-specific abortion of female foetuses, and in China to female infanticide and abandonment of female children. This mimics what occurs in other countries which also have son preference, such as India and some Muslim countries; discrimination against girls also means that girls may receive less food and less medical assistance than boys (McNay, 2005: 124; Momsen,

2004: 27; Datta, 2002: 84; Tsai, 2002: 58; Murthy et al., 1999: 70, 110; Ostergaard, 1992: 120; Momsen, 1991: 13; Mosse, 1991: 83). It is estimated that in China, 1 in 3 pregnancies end in abortions; the state has always denied forced abortions, but in fact it is agreed that they do occur at grassroots level as cadres are under pressure to meet quotas (Tsai, 2002: 57; Dalsimer & Nisonoff, 1997: 286). A nation's sex ratio reflects women's status and quality of life, and is often the first indication of gender inequality (Momsen, 2004: 21). In China before the One-Child policy the natural sex ratio at birth was 105 male infants born for every 100 female infants; the figure had changed to 107 males in 1980, 114 in 1993, and by 2000 was distorted to 120 males for every 100 females born (McNay, 2005: 125; Tsai, 2002: 58). There are no figures available for female infanticide or abandonment. There is now an increase in cases of abduction and trafficking of young peasant women in China, 60% of them less than 18 years of age, to be sold into either marriage or prostitution (Tsai, 2002: 59). The same is occurring in Viet Nam, and reports indicate the problem is increasing as it is a lucrative market (Makkai & McCusker, 2004: 37; Tetreault, 1996: 53). It is extraordinary what unforeseen consequences can occur when repressive population policies are instituted in an environment of inequality for women.

### *Transition States and Women*

Problems in the centralised state economy in the 1980's led Viet Nam to move from socialism to market socialism, as I will outline in the next chapter. This transition has some similarities to the transitions to democracy and free-market economies which occurred in Eastern and Central Europe when communism collapsed there (Sweetman, 1995: 2). These changes are characterised by neo-liberal agendas with emphasis on production for export, and cut backs in the education and health sector (Rydstrom & Drummond, 2004: 11). Modernising centrally planned economies through structural adjustment policies should benefit women as they can earn more money and take paid jobs in the market economy;

but too often it has led to women having greater burdens. They are generally the first to be laid off when state owned enterprises are restructured; much of their new work is casual or in the informal sector, and they have to cover the increased prices of basic commodities (Murthy et al., 1999: 36; Fahey, 1998: 238). Even if women suffered inequalities with lower paid work and arduous household responsibilities under communism, at least there was some security, as the state provided employment, childcare, education, and health care. These are now gone, and women have to spend more of their time on reproductive work to compensate for these cuts in social services by the government, and the introduction of user pays in health and education (Murthy & Sankaran, 1999: 6, 76; Fahey, 1998: 237; Sen & Stivens, 1998: xi; Molyneaux, 1995: 49). There are new freedoms, but some of these are superficial: freedom to buy more and different varieties of consumer goods, clothes and cosmetics, or to have beauty shows (Sen & Stivens, 1998: xi; Fahey, 1998: 227-230; Truong 1994: 207). Yes there is freedom to make money and to spend it, but 'also the freedom to starve' (Molyneaux, 1995: 52).

Increased industrialisation has occurred as trans-national and multinational corporations are attracted to poor and transition countries, such as Viet Nam, because of their 'economic labour force' and this offers production factory work for women in new economic or export zones (Chow, 2002c: 4). Although these new jobs could be seen as feminisation of the labour force with an increase in control over their labour, Murthy & Sankaran argue that it is in fact a feminisation of poverty; the work is poorly paid, involves long hours often in poor conditions, and tends to be repetitive, boring, and exploitative. Although women's work has been an important part in the growth of export industries and therefore economic growth in many of these countries, this gender discrimination makes the women particularly vulnerable (Chow, 2002c: 6; Murthy et al., 1999: 6; Horton, 1996: 2; Sweetman, 1995: 2; Molyneaux, 1995: 50-52; Moghadam, 1993:

2). Although the number of women starting private businesses has increased, these tend to be small and under-funded as women lack access to money or credit. It is overwhelmingly men who have been able to profit from the restructured economy (Molyneaux, 1995: 52). In the transition to the free market, women in the Eastern Bloc did not fare well; the free market 'has little time for social or economic justice or notions of sustainable development' (Sweetman, 1995: 2). The market socialism reforms in Viet Nam and their effect on women will be discussed more in chapter 4. In the next section I will talk about the final theme of this theoretical chapter, health and women's health in development.

## **Development and Health**

Health is not just an abstract social or human right; it is an important part of the development and sustainability of a country's economy and its 'human capital', its people. Health and nutrition are important for children's well being, intelligence, and educational achievement, as well as for sustained productivity of adults (Peralta & Hunt, 2003: 2; MOH & Donors, 2001: 3; Dayal, 1985: 101). It can seem hard to know where to begin to improve health in developing countries when there are so many competing priorities. It was shown in Britain, Europe and America in early industrial times that what caused the initial decline of mortality was improved nutrition and quality of peoples living environment: basics such as safe water, sanitation, and better quality housing. At least half that historical drop in mortality rates in those countries occurred before medical drugs such as antibiotics and vaccinations were available. Poverty and poor nutrition are still the leading causes of ill health in developing countries today (RHAG, 2004: 1; Peralta & Hunt, 2003: 1, 3; Todara & Smith, 2003: 361).

As discussed earlier in this chapter, there is debate over the best long term solutions to overcoming poverty, but investing in health is an important one (RHAG, 2004: 1). Modernisation ~~make~~ bring about an improved economy, but

may

increased household income alone does not always translate into improved health, as there are many competing calls for that income. It is important that the state continues to invest in provision of quality health care systems; there should be particular emphasis on reaching the poor, not just having services available to those who can afford them. There should also be a focus on preventative health care, not just on hospitals and curative care (Gaiha, 1993: 175). Within this section on health and development, I want to focus particularly on women's health.

### ***Women, Health and Development***

Women's health is an integral part of the development of a nation. It has broad implications; healthy women can contribute directly to their country's development, but also the state of women's nutrition and health, particularly in pregnancy, has long-term consequences on their children's health. Pregnancy is usually straightforward, but in about 15% of cases there can be severe problems (Levine et al., 2004: 48; WHO, 1998c: 1). This has led to the situation where death from pregnancy or birth complications, maternal mortality, remains a leading cause of death for women of childbearing age in developing countries. This makes Safe Motherhood a clear priority in women's health in those countries (Patton, 2002: 16; Levine et al., 2001: 10; McElmurry et al., 1993: 11).

Early focus on women's health and development was only in relation to population, birth rates and contraception, as noted earlier in this chapter. After the 1978 Alma Alta International Primary Health Conference, family planning often came under Maternal and Child Health programmes, but with limited money for health care, the emphasis was on vertical programmes such as contraception, immunisation and growth monitoring of children, which had successful easily measured outcomes (AbouZahr, 2003b: 15). The UN Decade for Women and a series of international women's conferences focussed attention

on women and women's rights, and contributed to a gradual shift in emphasis; by the mid-1980s family planning was being discussed in the context of 'reproduction and the family.' Population and family planning programmes began to emphasise issues such as the quality of such services, and access to services; before then the focus had been on the quantity. It was seen that you couldn't simply give out contraceptives without taking note of problems such as the high maternal mortality rate, and lack of access to family planning services (Patton, 2002: 14; McMurray et al., 1998: 5).

Various NGOs and the growing women's movement had their effects on women, health and development issues. Through the 1990s, women's rights came to be seen as a human rights issue; it therefore followed that reproductive rights were also a human rights issue. By 1994 when Cairo was going to host the International Conference on Population and Development, women's groups from around the world were organised to lobby for women; they called a pre-conference on Reproductive Health and Justice, which was attended by more than 200 women from 79 countries. The conference drafted an appendix on goals, strategies and activities, and included amongst them a non-negotiable demand for women's right to safe, legal, accessible, affordable abortion. They stated that 'population activities that only intended to control women's fertility and failed to address the broader conditions of poverty and livelihood, were unacceptable' (Patton, 2002: 28). This stand on abortion brought about polarised views in delegations at the International Conference on Population and Development itself; however in the programme for action after the conference, as well as addressing existing issues such as maternal mortality and morbidity, new concepts such as gender equality, the empowerment of women, and reproductive rights were addressed (Patton, 2002: 19).

## **Safe Motherhood Initiative**

The Maternal Mortality Ratio has been described as 'the most eloquent statement of inequity in health care provision, and of gender discrimination' (WHO, 1998: 1). A century ago, mothers in Europe, England, America, New Zealand, probably died in childbirth at the same rates that are evident in many developing countries today; in 1930 the English Maternal Mortality Ratio (MMR) was 598 per 100,000 live births (Thompson, 1999: 146). Since then the MMR in those countries has reduced to single numbers; in part due to women's improved standard of living and nutrition, and in part due to improved health services with better hygiene standards, increased training of midwives, and in the last half of the century to scientific advances such as new drugs, including antibiotics (Peralta & Hunt, 2003: 1, 3; Peters, 2000: 3; Thompson, 1999: 149)

Although it was known that maternal mortality in developing countries was still a problem, it was a 'silent problem' as the extent was unknown; poor countries did not have adequate reporting systems for births and deaths (AbouZahr, 2003a: 1; Peters, 2000: 3). In 1985 the World Health Organisation (WHO) carried out the first community studies in developing countries to try and obtain a more accurate picture of maternal mortality rates. This led to the first 'guesstimate' that there were at least half a million women a year dying in childbirth, 99% of them in developing countries (AbouZahr, 2003b: 15). This meant that women in some developing countries had a 1 in 8 chance of dying in their life time from pregnancy related complications compared to a 1 in 4,800 chance in Western Europe (Levine et al., 2004: 47; AbouZahr, 2003b: 15; Patton, 2002: 16; Thompson, 1999: 146). The extent of the problem was so shocking that the first ever International Safe Motherhood Conference was called in 1987; from this a Safe Motherhood Initiative was created, with WHO, UNFPA, UNICEF, UNDP, World Bank and other agencies pledging to cooperate and work at all levels to

identify deficiencies and improve the situation for mothers (AbouZahr, 2003b: 16; Patton, 2002: 17; Royston & Armstrong, 1989: 180).

The 1994 International Conference on Population and Development in Cairo, and the 1995 Fourth World Conference on Women in Beijing both called for women's access to appropriate health care services, so that they would be safe in pregnancy and childbirth, to be seen as a basic human right (Thompson, 1999: 148). Although much work and research has been done in the intervening years by those agencies and NGOs, and rates have improved in some countries, overall the rate of maternal mortality in developing countries is still too high (De Brouwere et al., 2001: 1). Authors suggest several possible explanations for this. Distance from care, and lack of transport or emergency vehicles may be a problem (WHO, 1998b: 2). Cost may be a barrier to accessing care that is available; in Nigeria, the number of women going to hospital to have their babies decreased, and the maternal mortality rose alarmingly, when user fees were introduced to what had been a free service (Thompson, 1999: 150; WHO, 1998b: 2). One reason suggested is that 'mothers' are often lost or neglected within maternal and child health programmes which focus more on the care of infants and children than their mothers (AbouZahr, 2003b: 16). This may be because no one disagrees that saving infants' and children's lives is vital work, but maternal health has a number of important political connotations which means the political will for change is not strong. Some women's activists are ambivalent, suggesting that Safe Motherhood is about keeping women confined to the role of mother (AbouZahr, 2003b: 18). Abortion and women's right to control their fertility, as family planning allows, are contentious issues that have polarised the Safe Motherhood debate. Catholic, Islamic and politically right wing governments and donors are suspicious that Safe Motherhood programmes are a front to introduce abortion; many donors refuse to fund any project or programme that includes any abortion activity (AbouZahr, 2003b: 18; Patton, 2002: 28; McMurray

et al., 1998: 6). Above all, maternal mortality by definition only affects women; some health activists challenge that in order to address women's health problems, governments need to acknowledge that it is due to oppression of women, and that this needs to be overcome (AbouZahr, 2003b: 17). Whichever the political reasons, it is interesting to note that the World Summit for Children was attended by the worlds' heads of state and senior country representatives; not so the International Safe Motherhood Conference (AbouZahr, 2003b: 16).

The official definition of Maternal Mortality is given in the introductory chapter; put simply, a maternal death is the death of a woman from pregnancy, birth, or in the next 6 weeks, or from related causes; as well as deaths due to the management, interventions, omissions or incorrect treatment during the pregnancy or birth. The Maternal Mortality Ratio is measured as the number of maternal deaths per 100,000 live births (Billson & Fluehr-Lobban, 2005: 39; AbouZahr, 2003: 2; Royston & Armstrong, 1989: 11). The causes of maternal deaths are known. There are five specific 'direct' or medical causes of maternal mortality: haemorrhage, infection, complications from unsafe abortion, eclampsia (toxaemia) related to high blood pressure, and obstructed labour left untreated so that the uterus ruptures (UNDG, 2003: 36; AbouZahr, 2003: 2; Peters, 2000: 3; Murray, 1989: 75). Maternal deaths may also occur from 'indirect' causes such as when a woman's pregnancy is complicated by malnutrition, anaemia, or diseases such as malaria, tuberculosis, HIV/AIDS, or heart problems, as they often are in developing countries (Levine et al., 2004: 48; van den Broek, 2003: 149; Harrison, 2003: 112). There are some risk factors which may place women at higher relative risk of maternal mortality or maternal morbidity; another significant issue includes the quality or absence of care during pregnancy and childbirth (Wagstaff & Claeson, 2004: 43; Kwast et al., 2003: 46; de Bernis et al., 2003: 39; Backett et al., 1984: 1-3). These two issues are the focus of the research in this thesis, and will be discussed in chapter 5.

At the UN Millennium Summit in 2000, the member states of the UN pledged to reach eight Millennium Development Goals (MDGs) by 2015. The goals have been described as a 'road map' for what needs to be done to achieve greater equality, with the emphasis on alleviating world poverty and hunger, and improving health. Nearly half of the MDGs concern health, directly or indirectly; goal five is to reduce the maternal mortality ratio by three quarters by 2015 (Wagstaff & Claeson, 2004: 31; Momsen, 2004; UNDG, 2003). How can maternal mortality be reduced? There are no quick fixes; in the long term childbirth will only be safe for women in all countries of the world when all women have access to 'better education, better status, some economic independence and a greater degree of control over their own reproductive lives' (Turmen in Murray, 1996: vi) as well as having access to good health systems with essential obstetric services, supplies and medications, and well trained staff (Levine et al., 2004: 47). It is too simplistic to say that it is poverty alone that causes these deaths; governments also need to demonstrate political will and commitment to bringing about the necessary changes (Peters, 2000: 3; De Brouwere et al., 2001: 1).

While those long term aims are being worked towards, there are some more immediate technical ways of reducing maternal mortality. The single most important means of preventing maternal deaths is to have skilled attendants present at every birth, capable of providing rapid emergency obstetric care, including treatment of haemorrhage, as well as prevention or early detection of other problems that may occur (Levine et al., 2004: 48; World Bank, 2003: 22; de Bernis et al., 2003: 39-40; Kwast et al., 2003: 52; Peters, 2000: 3). A skilled attendant is one who is properly trained to WHO standards, who has appropriate equipment and drugs, and who is able to manage complications and provide emergency care. It is considered probable that trained attendants in many countries would not meet the WHO standard of 'someone who is trained to

provide the necessary supervision, care and advice to women during pregnancy, labour and the postpartum period, and to conduct deliveries on their own' (UNDG, 2003: 36; WHO/RHR 2001). This is one of the focus areas of the research, as I will discuss in later chapters.

## **Chapter conclusion**

A key theme in this chapter has been that many of the poor countries of the Third World are traditional agricultural societies; development is seen as a quest for modernisation or neo-liberal modernisation, but the result is often increased inequality of income as the urban and well educated benefit, men more than women. Rural dwellers and women are especially vulnerable to poverty because of reduced earning options, and discrimination. Poverty is the root cause of ill health, and health is vital to development. Increased income alone will not address health problems; the state also needs to invest in quality health systems and training, so that care is effective.

In review, development of a country is about more than just the economy; social factors such as education, health, and distribution of wealth within a country are also important. Education and literacy of girls is a key determinant of future fertility rate, and health of children, for example. Maternal and infant mortality rates are important indicators of the development of a country, as they are the first to be affected by detrimental changes in health and socio-economic status.

Women are vital to all aspects of the development of a country, not just as production workers or producers of babies; yet they *cannot* fully participate in the development of their country when they lack the power to improve their own lives because of discrimination and inequality. Socialism promised equality for men and women, but as discussed, in reality in Viet Nam and China traditional Confucian patriarchal attitudes are interwoven so women remain subordinate.

Women's health is a major part of development as it has direct consequences on families and children's health, their education and future production. Within women's health, Safe Motherhood is a clear priority. Although the causes of maternal mortality are well known, developing countries continue to have high rates. To be safe in childbirth women need good education, equality of status, economic independence, and some control over their own reproductive lives. They also need affordable access to good quality maternity services which have the necessary supplies, equipment, medications and well trained staff who can prevent detect and treat emergencies. Having a skilled attendant at every birth is the single most important determinant of Safe Motherhood; this key issue will be discussed more and researched in other chapters.

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**Figure 3: Thuy and her family**

Thuy and her husband stand on each side of their 7 children (2 other children died after birth).



Source: Tricia Thompson

## **Chapter 3: Background and Context: Viet Nam**

Every country in the world could be described as a unique woven cloth, similar in that each is fabric with the warp and weft threads that make up any woven fabric; different, because each has its own unique threads made up of that country's unique geography, history, tradition, religion, culture, peoples, politics, literature and art, food and flavours. My experience living in Viet Nam for four years revealed it to be a fascinating country with rich traditions and history, cultured and generous people, and beautiful scenery. In this and the next chapter I will place this thesis and research into the context of Viet Nam and Binh Dinh province, where it took place. I will introduce some of the factors which have made Viet Nam what it is today, and examine where the country fits into the world.

### **Synopsis of the country**

Viet Nam is a long narrow S shaped country at the south-eastern end of the Asian continent, as illustrated in figure 1 on the following page. It is roughly 1600 km long, only 50 km wide at the narrowest point, and has a land area of 330,363 square km (Le, 2003: 5). Viet Nam's population was estimated to be 82.2 million in 2003, making it the twelfth most populous country in the world and the second most populous in South-East Asia (UNDP, 2004: 1; Pathfinder, 2004: 5). Three quarters of the country is mountainous or hilly land, making the coastal and delta flatlands extremely important for agriculture. The northern and southern delta areas are the best rice growing lands and therefore the most heavily cultivated and heavily populated areas of the country. Viet Nam has an average population density of 225 people per square kilometre, but in the northern Red River delta area the population density is 1000 persons per square kilometre. This contributes to Viet Nam having one of the highest population densities for an agricultural country in the world (Le, 2003: 5; Florence & Storey, 2001: 47).

**Figure 4: Map of Viet Nam in South East Asia**



Source: Tran & Nguyen, 1994: 2

The country's major industries are agriculture, forestry, fishing, and industrial and construction; major exports are crude oil, coal, bauxite and other minerals, cement, jute carpets, garments and footwear, rice, cinnamon, and processed marine products (ASEAN, 2006: 56). Viet Nam is a humid tropical country, although it is such a long country it extends from the south which has year around heat, to the north which has chilly winters. The climate includes a cold winter monsoon from the north and a hot humid monsoon from the south west; these set the annual agricultural rhythm of rural life in Viet Nam, and regularly bring floods (Florence & Storey, 2004: 37-38).

Eighty five percent of the population are *Kinh* (ethnically Vietnamese), 3% Hoa (ethnically Chinese), and the remaining 12% are 'national ethnic minority' peoples, made up of 54 different ethno-linguistic groups (WHO, 2003b: 2-3). Although there is no official discrimination, they are often referred to as '*moi*' which translates as 'savages' in Vietnamese; in English they are called hill-tribes, and in French Montagnards or mountain dwellers, reflecting the fact that the majority live in the mountainous north, north-west, and central western highland areas. The ethnic Chinese live mainly in urban areas, particularly in Ho Chi Minh City; the ethnically Vietnamese in both urban and rural areas, but mainly in the rural delta or flatlands, rather than the mountainous areas (UNDP, 2004: 3).

The official language is Vietnamese, a tonal language, spoken throughout the country. Perhaps half the vocabulary is Chinese. Vietnamese is written using a Romanised phonetic alphabet script devised by a French Jesuit missionary in the 17<sup>th</sup> Century; the old character script is now confined to ritual and religious use. Although Vietnamese is the official language, and the language of education, most of the ethnic minority groups have their own languages, some oral rather than written. Thus for many ethnic minority people Vietnamese is their second language (Ngo, 1999: 2, 3)

The four main religions or philosophies that have shaped the spiritual life of Vietnamese are Confucianism, Taoism, Buddhism, and Christianity. Confucianism is a philosophy or code of ethics introduced from China; it has been, and still is, important in shaping Viet Nam's social system and the lives of ordinary people. It emphasises a person's obligations to family, society and the state; the importance of duty, good behaviour, and knowing your place in the social hierarchy. Education is valued, with virtue acquired through learning. Hard work and deferred gratification are promoted (Chow, 2002c: 16). Buddhism, the predominant religion in Viet Nam today, teaches acceptance of one's lot in this life, moderation, and rejection of materialism as a block to happiness. This imbues many Vietnamese people with calm almost fatalistic acceptance of whatever happens, which can be seen from the outside as passivity (Tran & Nguyen, 1999: 12). Catholicism was introduced in the 16<sup>th</sup>

Century, but Catholics were discouraged, outlawed or persecuted for the next three centuries. Under French rule the Catholic Church was given preferential status and the religion flourished; today 10% of Vietnamese are Catholic (Tran & Nguyen, 1999: 14).

In fact Ancestor Worship pre-dates, and perhaps predominates, all of these. Every house, even of the most ardent communist, every pagoda, convent, and shop has an altar to the ancestors. The soul is believed to live on after death and take care of the descendants, so the family must perform specific rituals, regular prayers and offerings at the family altar; time is taken off work to attend important anniversary rituals. The family members visit the ancestors' grave or their altar to ask advice, and to inform them of good or sad news. One section of the family land is allotted to provide income for support of the ancestors; one son is designated to take charge of the necessary formal rituals, which is why families say they must have a son (Tran & Nguyen, 1999: 16).

## **Administration**

The Socialist Republic of Viet Nam is a one party state controlled by the Communist Party of Viet Nam. The National Assembly is the highest representative body of the people who democratically vote for its members every 5 years. The National Assembly meets twice a year, and elects a Standing Committee to act on its behalf at other times. Since 1997, National Assembly candidates have been permitted to include some independent non-Party members, although they must be approved; the Assembly continues to be largely dominated by Communist Party members, many from the military. Candidates do not have to be wealthy to stand (UNDP, 2004: 4; Kelly, 2004: 121)

Administratively, the country consists of 61 provinces. A Province is typically divided into 4 to 20 districts with a reasonably even division of population, plus the main city of that province; each district and city is further divided into anywhere between 6 and

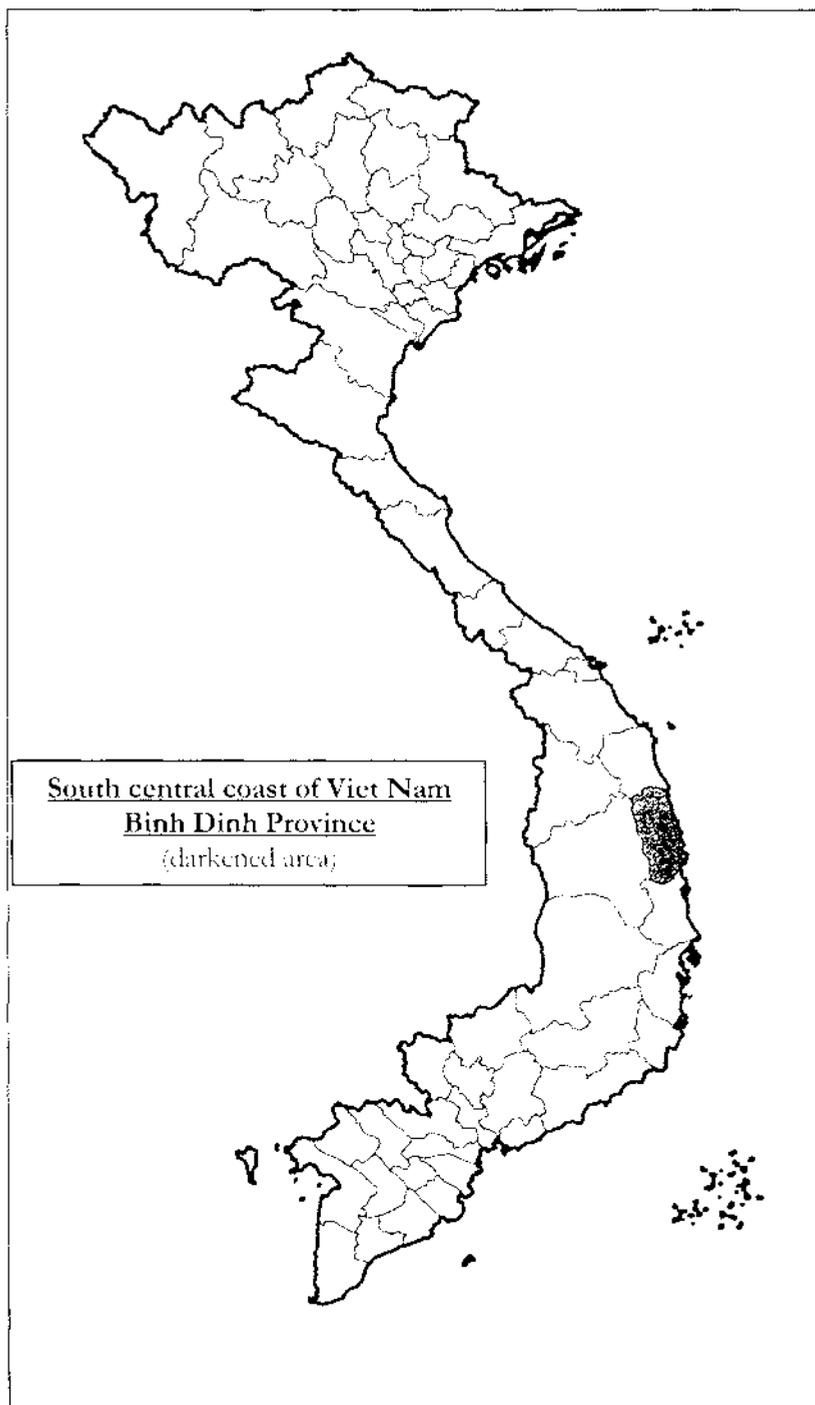
20 communes if rural (a commune is a collection of hamlets or villages), or wards if urban (Le, 2003: 8). Below central government level, local government consists of tiers of elected People's Committees at Province, District and Commune level, who have responsibility for daily administration at that level (Ngo, 1999: 15). Mass Organisations such as the Women's Union, Farmer's Union, Trade Unions, and Youth Union, are an important link between the people and the Party; they are consulted with, disseminate government information, and educate their members on issues as directed (Tetreault, 1996: 40).

The capital of Viet Nam is *Ha Noi* (Hanoi), a city of 2.6 million people in the north of the country; but Ho Chi Minh City (still called Saigon by many) in the south is far bigger; it has an official population of more than 5 million people (Le, 2003: 10), but is rumoured to have at least an additional 2 million unofficial (unregistered) people who have migrated illegally from rural areas (Bond, 1999: 10, 21). It has been said that while the north rules the country, the south runs the economy; the south was more deeply penetrated socially and economically by colonialism, and thus has always had greater wealth than the north (Tetreault, 1996: 41; Hiebert, 1994: 7).

### **Binh Dinh Province**

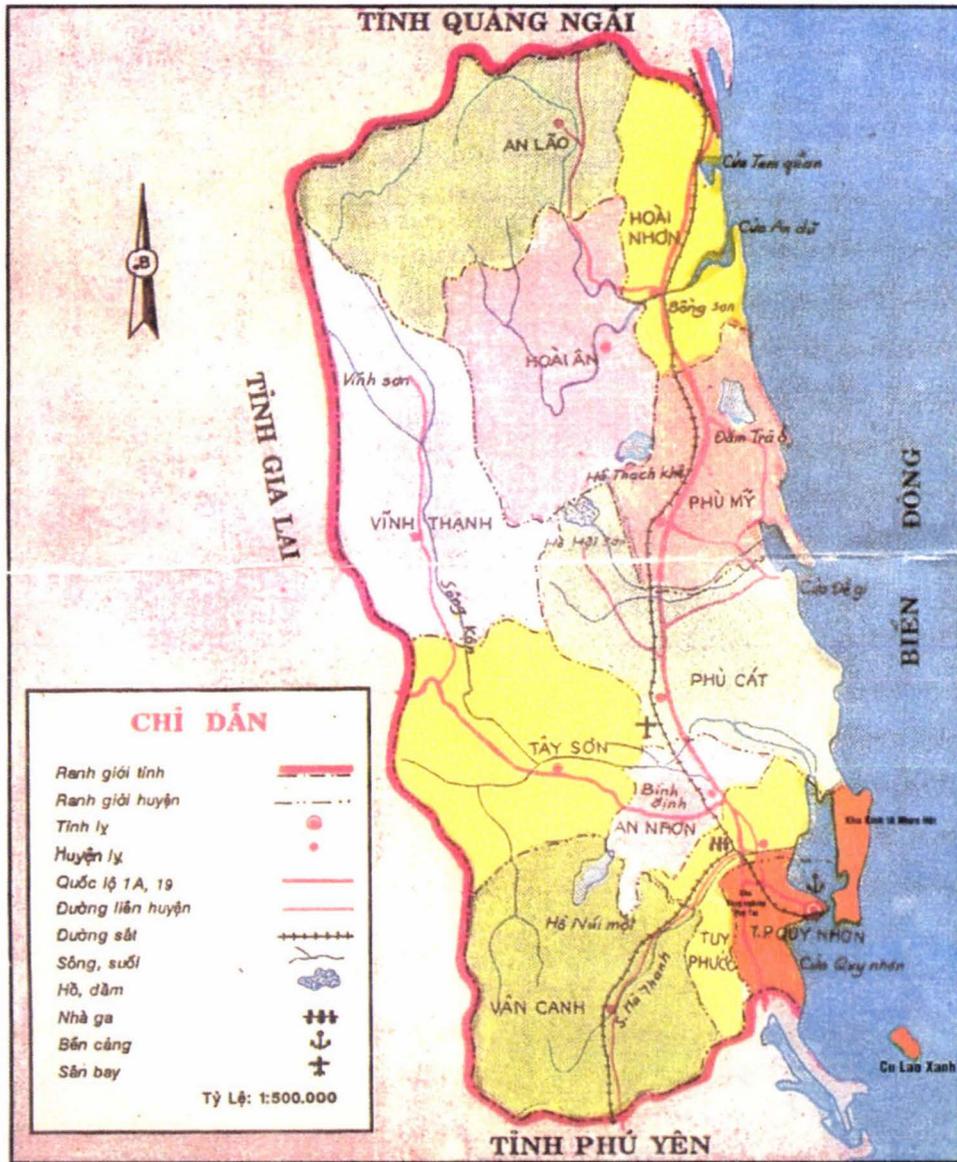
Binh Dinh province is one of the eight South-Central Coast region provinces of Viet Nam. Its position in the country can be seen in figure 2, a map of Viet Nam which shows all of the provinces. Binh Dinh has an important sea port which connects by road to Cambodia and Laos. The western side of the province rises from the coast to mountainous regions, and borders the Central Highlands. The province has one city, Qui Nhon, where the port is situated, and 10 rural districts. These are illustrated in the map at figure 3. The city and districts are divided into 155 communes, 26 of which are urban, and 49 of which are in mountainous or remote areas (UNFPA, 2003: 13; Nguyen, 2001: 10-12). The population of Binh Dinh in 2000 was 1.5 million people, with 83.7% living in rural areas, and only 16.4% urban.

Figure 5: Map indicating Binh Dinh province on central coast, Viet Nam



Source: UNFPA, 2003: cover.

Figure 6: Map of Binh Dinh Province: showing city of Qui Nhon and the 10 rural districts



Source: Le, 2003: 2.

Most of the population (98%) are *Kinh* (ethnically Vietnamese) and only 2% ethnic minority people (UNFPA, 2003: 13; Nguyen, 2001: 10-12). The economy of the province is improving, although Binh Dinh is still a poor province. Agriculture is moving from subsistence to producing excess for sale; fisheries and production are increasing as a source of income. Average income doubled from US\$157 in 1990 to US\$320 in 2000 (Nguyen, 2001: 11). Childhood malnutrition in under-5 year olds has reduced from 44.1% in 1991 to 34.9% in 2000 (Nguyen, 2001: 11). Binh Dinh is one of the provinces in Viet Nam which has especially large differences in health indicators between urban, rural and remote area population groups. For example, in 2003 while 78% of women in the province received 3 antenatal checkups, only 40% of mountainous region women did; and while 50% of women overall had trained attendants at birth, only 10% of mountainous region women did. Women in mountainous and isolated areas still face increased risk of maternal death (UNFPA, 2004: 49). The increased health risks are due to the province's relatively higher levels of poverty and rural population. These issues will be looked at again in the following chapter. In the next section of this chapter, I explore some of Viet Nam's history and influences.

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**Figure 7: Tuyen's parents and grandparents in front of the family altar**



Source: Tricia Thompson

## **Viet Nam's History**

Perhaps more than many other countries, Viet Nam is shaped by its history, particularly its recent history. To understand more of the national identity, the current political system, the health system, and the life for women in this country today, it is necessary to understand some of Viet Nam's history. I will outline a brief outline of the four major historical influences: Chinese, French, the period of warfare from the 1940s to the 1970s, and socialism. I will conclude this section by examining the changes which have occurred in Viet Nam since the 1980's, and the effect these have had in creating a growing divide between urban dwellers and rural people, and on poverty. These are important issues facing Viet Nam and its development today.

### ***Chinese domination***

Viet Nam is proud of its long history; evidence of earliest habitation goes back 500,000 years. By the 2<sup>nd</sup> Century BC early Viet Nam was a feudal society reliant on slash and burn agriculture, hunting, fishing, and trading (Nguyen, 2000: 1, 3). Some historians assert that Viet Nam had a matrilineal, possibly matriarchal society, which was supplanted by hierarchical and patrilineal Confucianism from China (Rydstrom & Drummond, 2004: 1; Frenier & Mancini, 1996: 22). China invaded and ruled Viet Nam for one thousand years from 200 BC, interspersed with short periods of self rule following rebellions. The strength of Vietnamese culture was evident even then; although they adopted a good deal from the Chinese (for example metal ploughs, irrigated cultivation of rice, the Confucian system) the Vietnamese maintained their own identity and were finally able to shake off the foreign rulers in 938 AD. This early colonisation, and as importantly, that the first foreign invaders were finally repelled, has had vital influence in shaping Vietnamese identity (Nguyen, 2000: 16, 17). From then until the late 19<sup>th</sup> Century, Viet Nam remained independent, although not always unified. Over the next few millennia, Vietnamese fought off other attempted invasions by Chinese, Khmer, Cham, and Mongols; they conquered the centre and south of present day Viet Nam, ensuring enough rice growing land (Nguyen, 2000: 18 - 20).

### ***French colonisation***

Viet Nam was a strategic trading port on the sea route from India to China, bringing outside influences. Missionaries began arriving from 1527 (Nguyen, 2000: 28). French missionaries encouraged French political and military involvement in Viet Nam, and after the French Revolution of 1848 'there arose a coalition of (French) interests – Catholic, commercial, patriotic, strategic and idealistic – with sufficient influence to initiate large-scale, long-term colonial efforts' (Florence and Storey, 2001: 18). The French conquered Saigon in 1859 and ruled Viet Nam, as part of Indochina, until 1954 (Nguyen, 2000: 30). Colonisation brought technical developments and public works, but also poor pay and appalling conditions labouring on French tea, coffee and rubber plantations, and loss of land ownership. The majority of peasants had owned their own land, but by 1930 nearly 70% were landless (Nguyen, 2000: 32).

Resistance and attempted overthrow of French rule occurred throughout the period of colonisation; ultimately the communists were the most successful (Florence & Storey, 2001: 18-24). In the 1940s Ho Chi Minh, meaning 'Bringer of Light' an alias of Nguyen Tat Thanh, 1890 – 1969, emerged as an inspirational leader for Viet Nam (Florence & Storey, 2001: 22). Japanese troops invaded Indochina during World War Two; Ho's communist dominated nationalists were the only group to resist the Japanese, funded by the US Office of Strategic Services (the forerunners of the CIA). In 1945 the Japanese seized the majority of Viet Nam's rice crop, causing a famine in which 2 million Vietnamese, a fifth of the population, died (Florence & Storey, 2001:23). When Japan surrendered at the end of World War Two Ho Chi Minh's forces controlled the north of the country, and in September 1945 declared the Democratic Republic of Viet Nam independent (Nguyen, 2000: 34). But the French returned, backed by the US, and a guerrilla war continued which did not end until 1954 (Nguyen, 2000: 36).

### ***American - Viet Nam War***

At the Geneva Peace Accords after the French surrender, instead of becoming a free and independent country Viet Nam was partitioned, with Ho given control of the

north of the country. A devastating 20 year period of insurrection and war followed (Nguyen, 2000: 39). Nationwide elections were to be held in July 1956 to unify the country, but these never took place, as the South Vietnamese nationalists and their US allies feared that a national election would result in a victory for Ho Chi Minh (Nguyen, 2000: 39). America made Viet Nam 'pay a terrible price' for choosing to embrace socialism rather than following the common post-colonial path to Western-dominated capitalism (White, 1989: 173). The political struggle for independence between North and South Viet Nam eventually became an armed international conflict. America never declared war on North Viet Nam. They had provided funding and 'military advisors' to the south since 1950, and this escalated; in 1964 American bombing of North Viet Nam began, and the first troops landed in 1965.

Eventually American planes dropped three times as many bombs on North Viet Nam as were used in the entire Second World War; 'every single road and rail bridge' was bombed, as well as 4000 of North Vietnam's 5788 villages' (Florence and Storey, 2001: 26; White, 1989: 173). Despite all the fighting, deaths, and defoliant spraying, they still could not defeat the North Vietnamese; with fading political support in America most troops withdrew in 1973. The US had supposed that they would quickly win the war due to superior funding and technology; they failed to understand the lessons learned by the Vietnamese in their long history of guerrilla warfare and expelling foreign invaders, and the strong psychological advantage of the desire for independence (Nguyen, 2000: 45). By 1975 American funding was reduced to half what the South needed, and the North Vietnamese were able to overcome the south. The war ended in April 1975 and Viet Nam was declared unified (Nguyen, 2000: 36- 48).

Technically there may have been peace, but there was lingering bitterness on both sides, and immense problems as the country struggled to recover. As well as the human loss, the country was diplomatically isolated, with a devastated economy, infrastructure, and environment (Florence & Storey, 2001: 34-35). It is estimated that 1.5 million Vietnamese combatants and 4 million, or 10% of the civilian population,

had died (Nguyen, 2000: 50). In the first five years after the war more than 2 million South Vietnamese fled as boat people (Lam, 2005: 2). General Westmoreland's vow that Viet Nam would be 'bled to the point of national disaster for generations' seemed to have come true (White, 1989: 174).

### ***Socialist rule***

Socialism brought a centralised economic system, all industry and agriculture run by the state or state collectivised co-operatives, and political repression with one million Southern supporters sent to 're-education camps;' private property, assets and businesses were seized (Le, 2006c: 2; Barry, 1996: 4). Sadly, despite the price paid for independence, it did not bring prosperity. The economy grew only 0.4% per year between 1975 and 1980 (Bloom, 1997: 8). The north, left poor and underdeveloped under French colonialism, was further devastated by the war with the US and high costs of post-war reconstruction and reunification. The Stalinist economic system had an adverse effect, the effects only masked by aid from other socialist countries (Segall et al., 2000: 9; Bloom, 1997: 8; Fforde & Paine, 1987: 8). Viet Nam was also hampered by the trade and investment embargo from the West after the war involving America (Vu, 1994: 2). Vietnam was not growing enough rice to feed itself under collectivised agriculture; by the mid-1980s tons of rice had to be imported as the country faced starvation (Watkins, 2004: 5; Segall et al., 2000: 9; White, 1989: 172). Something needed to change, and 1986 heralded the beginning of a period of major changes which were termed *Doi Moi*.

### ***Doi Moi***

At the 6<sup>th</sup> National Congress of the Communist Party in 1986, it was accepted that the economic model they had been following was unsuccessful. *Doi Moi*, which literally means 'renovation' or 'new change' in Vietnamese, was the Party's term for the economic and other reforms they then instituted to try and accelerate industrial development and the economy of the country (Barry, 1996: 4). *Doi Moi* has dramatically changed the country, its economy, and many aspects of society,

including the health sector. *Doi Moi* was a gradual process of changing from the centrally run Stalin-type economy to a market economy with socialist direction, what is often referred to as 'market socialism.' Key economic changes included allowing state industries some autonomy; a market oriented monetary policy; devaluation of the currency to help control inflation; a more outward oriented policy on external economic relations, including revising the law to encourage foreign investment; and reducing restrictions on private enterprise, hoping that the private sector would promote economic growth. Virtually all subsidies and price controls were eliminated (Watkins, 2004; Fahey, 1998; Harvie & Tran, 1997; Dodsworth et al., 1996; Vu, 1994; Than & Tan 1993; Le, 1992; Leipziger, 1992). Between 1986 and 1995 the country's growth rate was more than 7% per year (Bloom, 1997: 8).

Another important aspect of the *Doi Moi* reform was that collective agriculture was virtually abandoned, farms and household production was privatised (Barry, 1996: 5). Within 10 years Viet Nam had moved from near starvation and needing to import rice, to being the world's 3<sup>rd</sup> largest rice exporter (Watkins, 2004: 5). However, the Vietnamese Communist Party maintained tight political control: there was none of the political liberalisation occurring in the USSR and Eastern Europe; such things as opposition political parties, relaxation of media censorship, or freedom to dissent, were not permitted in Viet Nam (Watkins, 2004: 6; Truong, 1994: 207).

### ***Opening the doors***

*Doi Moi* had begun the process of opening the country to the outside world, and this became more important after the break up of the USSR in 1991 as for years a quarter to a third of Viet Nam's budget had come from foreign aid; after the USSR dissolved in 1991 Viet Nam had to make do with only 5% from this source (Watkins, 2005: 8; Fforde & Paine, 1987: 25). Visa restrictions were eased, from 1989 foreign tourists began to visit, and by 2004 there were almost 3 million visitor arrivals. International tourism contributed 4.45% of GDP in 2002 (ASEAN, 2006: 264). In 1994, the US lifted the trade embargo which had been in place for almost 20 years, and in 2000 a trade agreement was signed between the two countries. However the greatest

proportion of trade is with other Asian countries; Viet Nam began to move its orientation from the Eastern Communist Bloc towards Asia and in 1995 was admitted to the Association of South East Asian Nations (ASEAN) joining Thailand, Singapore, Indonesia, Malaysia, Brunei, the Philippines, Viet Nam, Cambodia, Laos, and Myanmar. They cooperate in trade, culture and special projects that affect member states (ASEAN, 2006: 1).

### ***Market socialism in Vietnam***

Vietnamese decision makers seem to have been strongly influenced by the neo-liberal modernisation development school as currently espoused by the World Bank and IMF (Vu, 1994:10). The economy of Viet Nam has improved dramatically since *Doi Moi* and the subsequent modernisation, sometimes termed an ‘economic miracle’, with an average annual growth rate of 8% in the decade after *Doi Moi*, and the Gross Domestic Product (GDP) more than doubled (NGKT, 2003: 9; Chow, 2002c: 3; Tipping, 2000a: 7). As well as the institutional changes of the shift to a market economy, this has brought a structural transition with a shift from the agricultural base of the economy; the changing sectors of the GDP reflect the increasing industrialisation of modern Viet Nam. In 1990, 40% of GDP was contributed from agriculture (including fishing and forestry); 22% from the industrial and construction sector, and 38% from the service sector. By 2003 this had completely reversed, with 22% from agriculture and 40% industrial; the service sector ratio remained the same (UNDP, 2004: 6; NGTK, 2003: 18; Mundle & Van Arkadie, 1997: 10). In recent years agriculture is more diversified, with more export crops and processed products. Viet Nam is increasingly attracting multinationals and foreign companies who see Viet Nam as having an ‘economic labour force’; this has created more employment opportunities at factories, sometimes justifiably called sweatshops, processing labour intensive products such as clothing, footwear, and sea foods, for export (Horton, 1996: 12; Moghadam, 1993: 15). The Vietnamese economy is more integrated into the world market, and in the Asian boom of the 1990s Viet Nam was being referred to by some authors as an economic ‘transition tiger’ (Van Arkadie & Mallon, 2003).

It is obvious that there are some deep-seated problems however. Foreign investment is not as high as planners hoped because of issues of poor infrastructure, governance, the level of political control, and corruption (Van Arkadie & Mallon, 2003: 259, 265; Hiebert, 1994: 109). Complaints are made of poor industrial competitiveness, outdated technology, poor quality and design due to little investment in research and development (UNDP, 2004: 9). There are calls for a second *Doi Moi*' reform; national and foreign investors say there needs to be more liberalised trade, less corruption, and a strengthened and more transparent financial system if Viet Nam is to continue to advance (Thayer, 2005; Kokko, 1998; Dodsworth et al., 1996; Than & Tan, 1993).

## **Poverty in Viet Nam**

### ***Rural / urban divide***

During the war years there was a slight urbanisation, with the rural population falling from 92% rural in 1960, to 89% rural by 1975 (Fforde & Paine, 1987:76). Although there has been some further urban move in the intervening years, the country remains largely agricultural, with 76% of the population living in rural areas and 24% in urban centres in 2003 (UNDP, 2004: 20; NGKT, 2003: 14). *Doi Moi* and the return from collective agriculture to land ownership brought improved livelihoods for many rural people, but only in the flatland and delta rice-producing areas. In the mountainous regions, where ethnic minority people live, poverty levels remain high as those people still rely on subsistence agriculture, often complicated by environmental degradation (Castella & Quang, 2002: 1).

As in many developing countries there is a drift to urban centres by poor people seeking better opportunities; a poor person can make more working, selling, begging, or prostituting, on the streets of a large city than they can in an impoverished village (Bond, 1999: 69). The Vietnamese government tries to control this urban drift; people must carry their registration card on them, and are only legally permitted to live where they are registered. This leads to serious problems in urban centres such as Ho Chi Minh City, where it is estimated that between 10% and 15% of the

population are illegal, unregistered migrants from the countryside. Because they do not have the correct registration card, they are not permitted to access official jobs, housing, education, loans or low interest credit, or social services such as free health care and programmes targeting the poor; they often live in shanties with no water or electricity; they do not generally appear in official statistics (Bond, 1999: 70). It is a difficult situation for the government, but the only real solution is to improve life and incomes for rural people, which would give people a reason to remain there. 'In the long run migration can only be addressed through broad-based rural development and off-farm job creation to reduce wealth disparities between rural and urban areas' (Bond, 1999: 70; Mundle & Van Arkadie, 1997).

#### ***Poverty and its effect on health in Viet Nam today***

The rapid economic growth of the 1990s significantly reduced poverty. Gross Domestic Product (GDP) is one measure of a country's wellbeing, and Viet Nam's GDP has improved in recent years, more than doubling since *Doi Moi* (NGKT, 2003: 9). The International Monetary Fund lists 180 countries for which data is available in 2003; Viet Nam is listed as 139<sup>th</sup> of those 180 countries, with a per capita nominal GDP of US\$535 (UNDP, 2004: 12). In 1993, 58% of Vietnamese households were classed as being below the international poverty line of US\$1 per day (purchasing power adjusted); in 1998 this had reduced to 37%, and by 2002 to 29% (ASEAN, 2006: 41). While this is a good reduction, of concern is that 63.7% of the population are still below the level of US\$2 per day (purchasing power adjusted) (UNDP, 2004: 12). Households barely above the poverty line are vulnerable to any accident, incident or illness which would easily cause them to drop into poverty due to loss of income as well as having to pay health expenses. In the 'Voices of the Poor' study in 1998, health expenses are estimated to have pushed about 2.7 million Vietnamese into poverty (Wagstaff & Claeson, 2004: 26). 'A serious illness can trigger a cumulative process of increasing debts and asset sales which ultimately leave the family destitute' (Tipping, 2000a: 7-8).

Another example of the vulnerability of being barely above the poverty line was shown in the Avian Influenza (Bird Flu) crisis, which affected Viet Nam more than any other country. With a livestock population of 254.3 million poultry in 2003 (NGTK, 2003: 39), the unexpected enforced culling of millions of birds has had a devastating effect on many rural households. The sale of eggs, meat, and live chickens was a significant source of income for rural households; eggs and chicken are an important source of nutritional protein, particularly eaten by women and children. The loss of this protein source contributes to high rates of anaemia, which also creates higher risk of maternal mortality and morbidity.

When Vietnamese speak of eating a meal, they say '*an com trua*' or '*an com toi*' meaning 'eat rice (at) lunchtime' or 'eat rice (at) evening time'. This reflects the fact that rice is the major basis of meals, and accounts for 85% of calorific intake (WHO, 1995: 23). Poor families may at times only be able to add fish sauce to their rice; with increasing level of income, increasing amounts of other foods, particularly protein foods, can be added. The per capita protein supply has increased from 48% of the daily recommended level in 1980, to 51% in 1990, 60% in 2000, and 62% in 2002 (ASEAN, 2005: 337). This reduced intake of iron-rich protein food is a contributing cause of anaemia.

With 63% of Vietnamese women estimated to be anaemic, this has major implications for risk of maternal mortality (van den Broek, 2003: 149; Kusin et al., 2003: 63; Harrison, 2003: 112; MOH & Donors, 2001: 21). Pregnant women reported that there were three major reasons that they ate little protein: poverty often means they *cannot* afford it; the socio-cultural expectation of self-sacrifice by women means that protein such as meat is given to in-laws, husbands and children, and less often to women. The third reason was that pregnant women learn from their mother-in-laws that they should avoid '*bo*' foods (nourishing foods) as the cultural belief is that baby will grow too large to be born if they eat many such foods (Do & Morrow, 1998: 1-6). Many rural women do not attend antenatal care routinely, only attending if there is a crisis such as bleeding. With no antenatal care, they do not

receive education from health staff about nutrition in pregnancy to counter these beliefs (Do & Morrow, 1998: 6-7).

Many families experience pre-rice harvest hunger, affecting children's patterns of weight and growth; this seasonal malnutrition is common to many developing countries reliant on agricultural output (Chambers et al., 1981). Childhood malnutrition rates have been lowered with concerted health campaigns, and the national rate of under-5 year old malnutrition in 2002 was 32%, down from 37% in 1999 (UNDP 2004: 18; UNDP, 2002: 2). At the other end of the scale, there is a growing problem of obesity with 12% of children from wealthy urban families being classed as obese (UNDP, 2004: 18).

There is a growing inequality between urban and rural people, with 90% of the poor living in rural areas (UNDP, 2004: 15). Poverty levels are highest amongst ethnic minority people; while 31.7% of *Kinh* (ethnically Vietnamese) people were classed as below the poverty line, 75.2% of ethnic minority people were in the same category (Nguyen, 2004: 2; UNDP, 2004: 15; Castella & Quang, 2002: 1).

In looking at health aspects of poverty, the percentage of the population with access to safe drinking water in 2000 was estimated to be between 65% and 70%, while 88% of the population had access to sanitation (toilet) facilities (ASEAN, 2006: 17). Figures for 1998 to 2000 show 78% of the population had access to electricity, but while 96% of urban dwellers had access, only 73% of rural dwellers did (UNDP, 2004: 17). Of modern amenities per 1000 population, there were 32 telephones, 47 television sets, and 6.4 personal computers. Of all roads in Viet Nam, 25% were paved (UNDP, 2004: 17).

Life expectancy is an important health indicator as it reflects improvements in health conditions, especially in child survival (World Bank, 2003: 6). Life expectancy in Viet Nam has increased from 68.3 years (66.6 years for males and 70.1 for females) in 1999, to 67 years for males and 72 for females in 2003 (ASEAN, 2006: 14; UNDP,

2004; 20). The Human Development Index (HDI), which looks beyond simply economic indicators, assesses a country by its education, health and income, as discussed in chapter 2. The Vietnamese HDI increased from 0.582 in 1985 to 0.649 (120<sup>th</sup> position) in 1995, and to 0.704 (108<sup>th</sup> position) in 2003 (UNDP, 2004: 12). This indicates a relatively favourable HDI for Viet Nam, as its economic (GDP) level is placed 139<sup>th</sup>; the high level of education in the country helps boost the HDI. Comparisons with neighbouring ASEAN countries places Viet Nam, with its HDI of 0.704, well ahead of Laos, Myanmar and Cambodia, whose HDI figures are 0.534 to 0.568, but below other ASEAN countries, who range from Indonesia at 0.692 to Singapore with 0.902 (ASEAN, 2006: 331).

## **Chapter conclusion**

In looking at the history of Viet Nam, it can be seen that each successive ‘invader’ whether Chinese, French Colonialist, American, Socialist, or Neo-liberalist, have all left their influence on Viet Nam. The philosophical influences of Confucianism, Catholicism, Buddhism, still affect the lives of Vietnamese today; recent wars profoundly affected the economy, infrastructure, environment, and human resources of the country. More recently the effects of the transition from planned central socialist economy to neo-liberal market socialism have brought improved economy with overall gains in income to most, but also increased inequality. The country’s opened doors have brought international companies with high paying jobs for well educated urbanites, and also multinational factories taking advantage of the large ‘economic labour force’ to provide low waged, low skilled and poor condition jobs for others.

As has been discussed, although agriculture now contributes a lesser percentage of the country’s gross domestic product, Viet Nam is still a largely agricultural society with 76% of the population living in rural areas (UNDP, 2004: 20; NGKT, 2003: 14). Although rural incomes have also improved since socialised agriculture ended, still 90% of those in poverty live in rural areas (UNDP, 2004: 15). Viet Nam’s geography

dictates that the most disadvantaged of rural dwellers are those who live in the remote and mountainous regions; these areas have poor agricultural land, less infrastructure, less access to services, all contributing to higher poverty levels. These residents include the majority of the country's ethnic minority peoples, making them the most disadvantaged.

As shown in this section within the theme of poverty, although the level of people living in absolute poverty has dropped with the economic growth in the last decade or more, many people live at a vulnerable point just above that cut off level. Any misfortune, accident, episode of ill health, can quickly cause them to drop back below the poverty line.

The improved economy has resulted in improvements in basic health indicators such as life expectancy, and reduced childhood malnutrition rates. Yet although malnutrition rates have fallen, still a third of under-5 year olds are affected (UNDP, 2004: 18; UNDP, 2002: 2). The increased disparity between urban and rural is demonstrated in the concurrent rise in obesity amongst urban children. Poverty and socio-cultural issues about food mean that 63% of women are anaemic, and this has serious implications on their risk of maternal mortality (van den Broek, 2003: 149; Kusin et al., 2003: 63; Harrison, 2003: 112; MOH & Donors, 2001: 21; Do & Morrow, 1998: 1). Health issues will be discussed in greater depth in the next chapter.

**Figure 8: Etrud, a young ethnic minority mother, pauses to breastfeed her baby**



Source of both photos: Tricia Thompson

**Figure 9: Etrud rocks her baby to sleep**



## **Chapter 4: Background and Context: Women and Health in Viet Nam**

As was seen in the previous chapter, Viet Nam has been influenced by Confucianism, conflict, and more recently by neo-liberal market reforms. In this chapter I will outline something of the lives of women in Viet Nam today, and the part played by these influences. In the second section of the chapter, I examine the Vietnamese health system today.

### **Women in Viet Nam**

Vietnamese women, particularly in the north, played an important part in the fight against colonialism, and for socialism. Some authors believe this is why women are said to hold a higher position in the family and society than women in other Asian countries; perhaps it is also that they were able to inherit land and property when other Asian women were not (Tran, 1999: 98; Tetreault, 1996: 41; Frenier & Mancini, 1996: 33). Others argue that since Confucianism Vietnamese women have been treated as inferior to men, and the only position of authority they have in the household is over daughter-in-laws (Le, 2002: v; Frenier & Mancini, 1996: 21; Kabeer, 1985: 98). Since the First Constitution of the Democratic Republic of Viet Nam in 1945, women have been declared equal to men in all aspects of political, economic, cultural, social and family life (Le, 2002: 224). Viet Nam has undergone considerable transition in the past decade, and life for women in Viet Nam is changing. However change always occurs sooner in the big centres, and so it is in gender relations; life and choices are different for young women in the cities today than for their rural sisters. Their transition is between the traditions of a Confucian, socialist, patriarchal society which encourages respect for authority, and a modern one which officially encourages equality (Rydstrom & Drummond, 2004: 8; Kelly, 2004: 98; Micollier, 2004: xiii).

While women in modern Viet Nam officially have equal rights to education and work outside the home, and are expected to contribute economically to the family, they are also still expected to be ideal Vietnamese women abiding by the Confucian morals of the 'four virtues and three obediences.' This means a woman is expected to be industrious, have good appearance, good speech (soft and polite) and good behaviour (kind-hearted and showing filial piety and good conduct); and to submit, first to her father, later her husband, then her sons (Rydstrom & Drummond, 2004: 8; Kelly, 2004: 107; Chow, 2002c: 23; White, 1989: 176). This requirement for obedience is usually extended to all male authority, for example in the work place. Juggling these multiple, and sometimes contradictory, expectations has created new stresses for young Vietnamese women. The present full-time, productive workload of women is conflicting with traditional roles and values, causing anguish and confusion for many' (Mitchell, 2002: 1). Although being virtuous is not contradictory to being a modern woman, as many urban women become better educated, exposed to foreigners, other options and images of other lifestyles on television, there is less congruence with the dutiful and obedient life that is still expected of them by older generations.

### ***Women's representation in Government and in Management***

Women have had the right to vote since 1946 (Tetreault, 1996: 41) although their father, husband or son is permitted to cast their vote for them! The proportion of women holding seats in the democratically elected National Assembly is amongst the highest representation for women in the world. In 2005, 27% of the 450 members were women, risen from the previous 18%; 60% of them had a tertiary qualification (ASEAN, 2006: 335; Mitchell, 2002: 3). Obviously tertiary educated women have good prospects in the country! Despite this high representation, women only hold about 8% of the leading positions in Ministries, and these are in sectors relating to children, women and social issues (Tran & Le, 2000: 176). Female representation has dropped at lower levels of government in the last decade; at Provincial level women's representation has dropped 19% to 12%, and at Commune level from 20% to 13%

(Tran & Le, 2000: 175). Within the Communist Party, which arguably actual rules Viet Nam, only 16% of members are women, only 10 of the 150 members of the Central Committee are women, and the 15 Politburo members are all men (Kelly, 2004: 121, 122; Fahey, 1998: 238). The number of female managers in professional agencies also dropped by about half in the 1990s compared to the 1980s when it was as high as 16% (Tran & Le, 2000: 176). In State Owned Enterprises surveyed in 1999, only 4.0% of managers were women (Le, 2002: 207). One woman director said in an interview 'in managerial work, difficulties for women double or even triple those of men because women have to fulfil three duties: [be] a good government official, a faithful wife and a kind mother' (Le, 2002: 209).

### ***Women and Education***

Viet Nam is notable in having high levels of literacy, with 94.7% adult male and 91.5% adult female literacy rates in 2000 (ASEAN, 2006: 9), although it is not mentioned how that literacy was defined or checked. However there are problems within education and these have worsened since *Doi Moi* reforms. Under the Constitution, primary education is compulsory for all children between the ages of 6 and 14 (Tran, 2004: 138) and although there is a 98.4% male and 92.2% female net enrolment level entering primary school, the primary school completion rate is only 66%. The net enrolment level at Upper Secondary School level is only 38% (UNDP, 2002: 5). There are special schools for the brightest 1% and 10% of the examinees in the province wishing to enter that level; bright girls are said to take a higher proportion of spaces in these schools. Outside of this top echelon however, the higher the education level the lower the rate of girls. A 1999 study on rates of girls enrolled at different education levels showed a progressive drop in numbers of pupils enrolled, as well as a progressive drop in rate of girls enrolled, at each higher level of education. At kindergarten 50.0% of enrolments were girls, 47.7% at primary school, 46.6% at Lower Secondary, 45.2% at Upper Secondary, and 44.3% at undergraduate level (Tran, 2004: 141). Few ethnic minority people receive any education beyond primary school; as they live in remote areas, they would generally have to obtain

scholarships to special boarding schools for ethnic minorities for secondary schooling; girls account for only 31% of enrolments at such schools (Le, 2002: 182).

Officially primary education is free, but since structural economic changes state subsidies to education have been reduced, and families are now required to pay a contribution to the school for each child as well as for uniforms, books and textbooks. These fees must be paid in advance before a child is permitted to enrol. School drop out rates have risen both because some families *cannot* pay, and as some require a child to become an extra income earner. In the countryside, 70% of primary school drop outs are girls; if it is difficult for a family to pay, education is seen as less important for a girl who will only do agricultural work (Tran, 2004: 143; UNDP, 2004: 6; Le, 2002: 183). Education costs are 3 times greater per pupil in urban than rural schools, however the percentage of household expenditure is much greater for rural families (Tran, 2004: 141; Bond, 1999: 47). Although the poor urban families interviewed for a 1999 Save the Children UK survey knew that 'a low level of education is likely to keep them in the trap of poverty' they are often unable to afford to keep all, or sometimes any, of their children at school (Bond, 1999: 47).

### ***Doi Moi, market economy, and women***

*Doi Moi*, the renovation to a transition economy, brought changes but gains have typically been more for men than for women (Tran, 2004: 137). Changes for women were mixed, with some women losing and some gaining in the shift to a market economy; the division is urban – rural, and also one of class (Fahey, 1998: 222, 226). As 90% of the poor live in rural areas, rural women especially in remote areas, with many children, or who lack land, remain the most vulnerable (Tran & Le, 2000: 94; Murthy et al., 1999: 22). Rural households headed by single women have the lowest incomes. A survey by the Women's Union of income structure in two provinces showed that income for a single-female headed family averaged 30,000 – 40,000 Viet Nam Dong (VND) (NZ\$3 – 4) per month while the rate for other families was about 100,000 VND (NZ\$10) per month (Tran & Le, 2000: 109). The only exception is when such a household is led by a woman who has a spouse remitting money from a

job in an urban centre (Murthy et al., 1999: 28). In urban areas there is an emerging middle-class, and this contributes to a growing gap between rich and poor (Ridge & Murphy, 2003: 70; Fahey, 1998: 222). When agricultural co-operatives ended women who had been in positions of responsibility lost those positions and the associated status (Santillan et al., 2004: 9). Since the restructuring of the state-owned economic sector as required under structural adjustment, a 70% state worker redundancy rate affected mainly women; many of them had to turn to petty trading or return to rural areas and agricultural work (Tran & Le, 2000: 99; Fahey, 1998: 224). Asian regional labour external-migration has been occurring for four decades, mainly from Indonesia and the Philippines with up to 2 million women working in other countries in the region. Vietnamese women have just begun to do similarly, with small numbers of Vietnamese women migrating to work in Taiwanese factories (Piper, 2003: 30–32).

### ***Production***

Viet Nam is increasingly involved in the world economy, and this has brought major changes (Rydstrom & Drummond, 2004: 1). Urban women in the major centres who are well educated and speak a foreign language have more access to well paid jobs with an increasing number of foreign companies. Since *Doi Moi* permitted privatisation, female entrepreneurs who have financial support or access to credit have new opportunities to improve their income (Ardrey et al., 1999: 7). It is noticeable that young women who enter higher education still tend to enter courses '*suitable for women*, although they are allowed to enter any course, *even those reserved for the male sex*' (Le, 2002: 183). Although the italics are mine, the wording of that quote from a Vietnamese tertiary level text on women's studies, reinforces the traditional society gender conceptions that still exist, despite the law which promotes equality between men and women. Thus females make up 100% of staff in pre-schools, 80% in primary schools, and 81% of the workforce in health care. Women in health care are however well represented at all strata, with 48.4% of graduating doctors being

'girls' in 1997. Notably, in the same year only 9.1% of technical graduates were female (Tran & Le, 2000: 98).

Women with low levels of education and training are likely to be in low skilled and poorly paid jobs, often with poor working conditions. As an example, 70% of workers in the textile and garment production workshops are women, but only 17% of workers in electronics are women, as those jobs require a higher level of training (Tran & Le, 2000: 98). As work for women in rural areas is limited to agricultural work, the number of females migrating to urban centres has increased (Bond, 1999:70). A 1997 study by the Committee of Agriculture, Social and Economic Development showed most rural women migrants, many girls aged 13 – 15, end up working as street vendors, garbage collectors, maids or hired labourers; large numbers end up working for very low wages at beer stands and restaurants; many become involved in what is quaintly termed 'social evils', that is, prostitution and or drug addiction (Tran & Le, 2000: 102; Bond, 1999: 45).

Urban women workers are also vulnerable to abuse with only 16% to 30% of surveyed private businesses having trade unions or any worker's organisations; workers are sometimes required to do overtime when work is busy, working 13 – 14 hour days, but at other times only having 4 or 5 hours paid work. In the same 1998 study, up to 86% of surveyed women stated that they had to work more than one job at a time, due to low and unstable income (Tran & Le, 2000: 127). Maternity leave was also supposed to be paid, but only 53.8% received it, and then sometimes only for 1 month instead of the legal 4 months (Tran & Le, 2000: 99). Less than a quarter of women employees attend any training or retraining. In Tran & Le's 1998 survey they explained that training did not benefit them with promotions, wage increases or better jobs; it cost them for travel or loss of income; it took time from family, children and housework; or that they felt 'tired and weak', and too near to retirement age. Women's retirement age is 55, which is 5 years younger than men (Tran & Le, 2000: 165, 166).

### *Division of labour*

The Production, Childbirth and Family Happiness Project research in 1997 showed that women undertake almost all household chores in the division of jobs in the family. Because the cultural concept of gender promotes women as the one who creates 'family happiness' her double burden of work within and without the household is uncritically accepted (Kelly, 2005: 105; Rydstrom & Drummond, 2004: 9). In a discussion group during the research, it was said that 'If the husband washes clothes, he is criticised by someone (saying) 'Is your wife crippled?' Men only drink. If men do housework, people will laugh at them' (Le, 2002: 167).

**Table 1: Division of household chores in the family (%)**

<b>Household chore</b>	<b>Wife</b>	<b>Husband</b>	<b>Children</b>	<b>Others</b> <i>(grandparents etc)</i>
Sweeping, tidying house	68.1	6.8	17.5	7.7
Washing clothes	83.7	3.6	10.9	1.8
Buying food	88.2	3.2	3.8	4.9
Cooking food	75.4	4.9	13.4	6.4
Repairing the house	15.5	74.8	1.1	8.4

Source: CGFED 'Production, Childbirth and Family Happiness' Project, 1997 (Le, 2002: 167)

As 76 % of the population live in rural areas, most work is agricultural. Perhaps because of the country's long history of war, there are more women than men in the agricultural workforce (Tran & Le, 2000: 99; White, 1989: 174). Agriculture is labour intensive, a relentless cycle of physical work, with irrigation allowing 3 cycles of rice harvest per year in many areas. There is limited equipment and technology, and poorly developed rural infrastructure, so work is primitive. Women work up to 18 hours per day, and men up to 12 (Kelly, 2004: 115). Modern equipment is limited, with 1 tractor for 485 farms, and 1 plough per 98 farms in 1999. They are used by men (Tran & Le, 2000: 105).

*Table 2: Division of (agriculture) labour in the family (%)*

<b>Production</b>	<b>Wife</b>	<b>Husband</b>	<b>Children</b>	<b>Others</b>
Cultivation	63.5	29.7	2.4	4.4
Animal husbandry	73.6	17.5	4.3	4.7
Fish raising	28.9	56.2	5.2	9.7
Hired labour ( <i>hire self out daily</i> )	20.8	68.5	4.7	6.0

Source: CGFED 'Production, Childbirth & Family Happiness' Project, 1997 (Le, 2002: 168)

Lack of land, or small uneconomic plots, have become a problem in many areas. This has resulted from land being divided amongst families, seized by loan sharks when loans could not be repaid, or being confiscated by local authorities when farmers could not fulfil the contracted assignments (Tran & Le, 2000: 101). This has led to family members hiring themselves out as day labourers or, especially for men, to join the rural-urban labour drift to seek even lowly paid jobs in the city; sometimes this move is permanent, sometimes seasonal. Among rural hired day labourers, women work for the lowest wages and are the most abused (Tran & Le, 2000: 100). Although all incomes have increased in recent years, rural incomes are still much lower than urban incomes (Tran, 2004: 143). In a series of studies in 1992-93, a female farmer's average income was 65,000 VND (NZ\$6.50) per month, while an urban female factory worker's income averaged 164,000 VND (NZ\$164) per month (Tran & Le, 2000: 108).

Figure 10: Three generations of women working in rice paddy at harvest time



Source of both photos: Tricia Thompson

Figure 11: Vegetable sellers at the market: mother and her pregnant daughter-in-law



### *Family life*

Vietnamese value 'family happiness' and it is a cultural expectation that women will marry and have children. Single women are pitied as being 'lonely' and not able to achieve the goal of harmonious family happiness (Barry, 1996: 12, 16). Under Confucianism failure to bear a child was sufficient reason for a man to divorce his wife; this still occurs (Le, 2004: 17; Kelly, 2004: 108; Le, 2002, 157; Fernier & Mancini, 1996: 24). Even today, with many women having more education and greater access to jobs, women feel they must get married; the worst thing they could imagine would be to not have children. A friend of mine, a well educated modern 40 year old Vietnamese woman who works with foreigners, expressed to me her grief about not being married: 'You foreigners think we just want children to look after us when we are old. But it isn't that so much, it is the after-world that worries me. My soul will be sad and lost forever, as I have no one who will take care of my altar' (Tran, 2003). In Confucian belief, a soul with no descendents to perform the necessary rituals is doomed to wander eternally.

The Law on Marriage and Family is meant to protect people from 'feudal' customs such as polygamy, women being forced into marriage, or people being prevented from making a marriage they want (Rydstrom & Drummond, 2004: 3; Barry, 1996: 11). ). Many marriages continue to be arranged by the family, seeking a suitable daughter-in-law to carry on the family lineage, although are there increasingly 'love marriages' albeit approved by the family. Their approval is still important culturally, and because in a country without welfare family support is vital. It is acknowledged that there are still some forced marriages, but 'only in backward rural and mountainous areas' (Le, 2002: 171). Marriage is still largely patrilocal; that is, the newlyweds move into the groom's parents' house. So when a son marries, the family gains his wife as a new member (and worker); but when a daughter marries, the family loses a member as she goes to her husband's household. The new daughter-in-law must then be subordinate to her husband and to her mother-in-law; the role of mother-in-law is the only position of authority a woman is generally able to attain in

traditional households (Kabeer, 1985: 98). Some modern couples in the cities rent or buy a small house or apartment of their own, but it is not common in rural areas. Especially in rural areas, often 3 or 4 generations live together (Le, 2004: 55). The age of marriage is higher today than previously, with women being on average 23.2 years and men 24.5 years, although urban women tend to marry 2.0 years later than rural women, and urban men 3.1 years later than rural men, (Le, 2002: 171) reflecting them seeking a stable job or career first. Child marriage does still exist, with some girls in rural areas marrying at 14 or 15 (Le, 2002: 179). This occurs particularly amongst ethnic minority groups; in some groups up to 14% of girls are married before the legal age (Tran & Le, 2000: 196). This creates increased risks in childbirth as young women under 20 years of age have twice the maternal mortality as those aged 20 – 34; it is an even greater risk for those aged under 15 (Wagstaff & Claeson, 2004: 33).

‘Experimental marriage’ or cohabitation has begun to occur in Viet Nam over recent years, although only in big cities and towns. It is ‘usually seen amongst students and government officials’ but ‘runs counter to cultural standards and values of the nation’ (Le, 2004: 6; Le, 2002: 175). In part this is because ‘the Vietnamese considered premarital sexual relations as a taboo’; until recently, if an unmarried girl was pregnant, not only would her parents and relatives feel ashamed but they would be fined by the village. Recent changes in sexual mores are perceived as the result of bad western cultural influence (Le, 2002: 172). These social changes and increased premarital sexual activity without adequate knowledge of, or access to, contraception has led to a situation where 25% of all abortions (in a country with one of the highest abortion rates in the world) are being performed on under-18 year old young unmarried women (Tran & Le, 2000: 202). This behaviour, plus the number of young sex workers, exposes young women to sexually transmitted infections; 30% of new HIV/Aids cases are in women aged less than 30 (Kelly, 2004: 103; Tran & Le, 2000: 202).

Although the rate of single people aged 35 – 49 years is low (only 7.4% of women in this age group are single) there is noted to be a small but increasing practice amongst

older unmarried women who seek to have a baby, especially since legislation to prevent discrimination against children born out of wedlock. Many say it is a 'heavenly duty' to have children and they will be abnormal if they do not. Some researchers have wondered if this will lead to a return of the polygamous marriages of the past (Tran & Le, 2000: 197). Another recent change is brokered marriages to foreign men 'prompted by economic gains' (Le, 2002: 179). These marriages may be with *Viet Kieu* (overseas Vietnamese), or with other foreigners; increasingly there is a trend for Asian men to buy a wife, second wife or 'concubine' from Viet Nam, particularly from the Mekong Delta where poor families may sell one daughter to improve the family economy (Le, 2002: 232). This occurs despite it being prohibited in the Constitution to 'profit by any marriage having a foreign element to trade or by child adoption or trading.' This is an example of there often being a difference between what the law says, and the reality of what actually occurs in the country (Le, 2002: 243).

Divorce had been unusual due to cultural pressures, but this is changing in recent times. More women than men now seek divorce, despite 'rare opportunities for them to get remarried' and far more urban than rural people do so (Le, 2002: 178). Listed reasons for seeking divorce are economic difficulties, violence by their husbands, or adultery (Le, 2002: 178; Tran & Le, 2000: 197). Sometimes what occurs instead is an unspoken separation, when one partner has 'left for work' elsewhere. In the 1998 Survey of the Vietnamese People's Living Standards, 1.25% of all women aged over 12 were divorced, and 0.95% were listed as separated; for men this was 0.32% and 0.27% (Le, 2002: 176).

More women than men are widows; in the above survey 10.9% of women, and 2.1% of men, were widowed (Le, 2002: 176). Due to Viet Nam's recent war history, it is particularly noticeable in elderly people: 54.1% of women over 60 years of age are widowed (Le, 2002: 196; White, 1989: 174). Many widows live in the countryside, and as there is no old-aged pension for peasants, they are reliant on their children to support them (Le, 2002: 201).

### ***Reproduction***

Viet Nam's socialist state population policy permitted couples to have only 1 or 2 children. Families were punished for exceeding this rate by loss of state jobs, fines, or loss of land. This, with the high literacy rate and later marriage age of women, has contributed to the rapid Total Fertility Rate (TFR) decrease from 5 births per woman in 1980, to 3.7 in 1990, 2.4 in 2000, and to 2.3 in 2003 (ASEAN, 2006: 14; Santillan et al., 2004: 10; MOH & Donors, 2001: 22; Freeman, 1995: 7). In 2003 the law was relaxed to a recommendation only, and now many families are choosing to have a third child. Fertility rates have always varied between regions, and between ethnic groups. In 1996, urban TFR was 1.84 and rural TFR 2.90. Amongst *Kinh* (ethnically Vietnamese) TFR was 1.87, among ethnic minority groups TFR ranged from 2.10 to 7.06. The region with the highest TFR is the rural central highlands where more than 70% of the population are ethnic minority (WHO, 2003: 11; MOH & Donors, 2001: 5, 23). Many ethnic minority women, especially in central Viet Nam, do not accept family planning services, nor abortion, and say that this is not the government's business (WHO, 2003: 19). This may be their indigenous belief, or it may be related to the fact that many were converted to Catholicism by the French. It is undoubtedly related to the fact that fertility rates are inversely proportionate to the level of a woman's education. 1998 statistics showed women with no education had an average 3.5 births, women with primary education 2.6, women with Upper Secondary School 1.9, while tertiary graduates had 1.6 births on average (UNDP, 2002: 5).

Contraceptive use is high amongst married women due to family planning campaigns; the contraceptive prevalence rate amongst married women estimated to be 75% in 1997, with intrauterine contraceptive device (IUD) (87%) and withdrawal (12%) the most commonly used methods. Oral contraceptive and condom use are low (Le, 2002: 160-1; MOH & Donors, 2001: 26). This IUD use is amongst the highest in the world, but may be due to provider preference, with limited women's choice (ESCAP, 1990: 21). A common complication for women who use an intrauterine device (IUD) as a contraceptive is a heavier menstrual flow, and this may

provoke anaemia (Santillan et al., 2004: 11; ESCAP, 1990: 21). Santillan et al. report that women often endure severe side effects such as pain and heavy bleeding and do not like to call attention to these as problems, as 'that may disrupt family harmony' (Santillan et al., 2004: 11). Another significant factor behind the fertility decline is that Viet Nam has one of the highest abortion rates in the world, with an estimated 52 abortions per 100 live births in 1999, suggesting an average of 2.5 abortions per woman. Abortions are considered a voluntary family planning measure; abortion is not forced as has been noted in China (Santillan et al. 2004: 11; WHO, 2003: 11; Le, 2002: 123; MOH & Donors, 2001: 27; Tran & Le, 2000: 202). Abortion rates are highest amongst women with better education; while only 5.5% of women with no schooling had had an abortion, the rate amongst women who had completed higher secondary education was 22% (MOH & Donors, 2001: 27). This may be related to maintenance of career. There is a traditional preference for a son, but there does not appear to be the sex ratio distortions reported in China (WHO, 1995: 8).

The Infant Mortality Rate (IMR) has decreased from 42.0 per 1000 live births in 2000, to 32.0 per 1000 in 2004, although there is some doubt about the accuracy of the figures (ASEAN, 2006: 15; MOH & Donors, 2001: 5). This relatively low figure for a country with Viet Nam's GDP is figure is boosted by the decline in communicable diseases due to the high coverage of childhood immunisation. Again, there is regional variation, with infant mortality 80% greater in rural areas than urban; and ethnicity differences, with 1999 IMR of 21% for *Kinh* (ethnically Vietnamese) and from 30% – 69% among ethnic minority groups (Nguyen, 2004: 2; WHO, 2003: 10; MOH & Donors, 2001: 7).

The Maternal Mortality Ratio (MMR) has fallen from an estimated 1,060 per 100,000 live births in 1969, to 576 in 1994, and 165 per 100,000 in 2003 (DRH & SC, 2004: 50; UNFPA, 2003: 14; MOH & Donors, 2001: 21; WHO, 1995: 28; TBMC & MOH, 1997: 24). Again, these may not be accurate figures as not all women receive official health care and figures are based on estimates. In line with international literature, the main causes are haemorrhage, infection, and eclampsia (high blood pressure) and at

least 53% of deaths are considered preventable (Poverty Task Force, 2002: 11; WHO, 1995: 29). In parts of Viet Nam, delays in diagnosis, treatment or referral accounted for more than one-half of the maternal deaths' (Thompson, 1999: 149). Regional variation in mortality means that women in rural areas, especially remote and mountainous regions, have 3 to 9 times the risk of MMR as urban women (Nguyen, 2004: 2; DRH & SC, 2004: 46). These women are less likely to have antenatal care or a trained attendant at birth (WHO, 2003: 10; Poverty Task Force, 2002: 12; WHO, 1995: 29).

Concerted efforts will need to be made if the Millennium Development Goal of a 75% reduction in Maternal Mortality by 2015 is to be reached. There will need to be increased resources, improved training and equipment to improve the quality of care, especially for emergencies, and improved access to effective care for women (DRH & SC, 2004: 48–50). Some of these issues will be addressed in the next section on the health sector in Viet Nam.

## **Vietnamese Health Sector**

### ***Structure of the health system***

Thanks to its socialist background, Viet Nam has a structured multi-tiered health system with a network of health care from central down to grassroots rural level. The Health system is controlled from the central Ministry of Health (MOH) in Ha Noi; each province has a Provincial Department of Health (DOH). The highest level of health care is provided by a network of centrally run hospitals (Segall et al., 2000: 8; MOH & Donors, 2001: 78; Bloom, 1997: 6).

I will outline the situation in Binh Dinh Province where I worked, as an example of health service tiers. Provincial General Hospital is in Qui Nhon, the major city; it has all usual wards such as medical, surgical, maternity, children, infectious disease, traditional medicine, and outpatients departments, operating theatres, specialist units such as intensive care and neonatal unit, and a special building 'for officials and important people' (a private wing). Also in the city are several Specialty Hospitals

such as Traditional Medicine, Tuberculosis, and Psychiatric Hospitals, and the Preventive Medicine Centre. Two hours travel from Qui Nhon there is a Regional General Hospital, which has smaller versions of the same departments, but considerably less diagnostic and ancillary services.

At the next tier are 11 District Health Centres (DHC), 1 in each of the 10 rural districts and 1 in the city of Qui Nhon. In essence they are small hospitals with the same basic departments, but they also see many people at the Outpatients Departments. In New Zealand they would probably attend a General Practitioner's surgery for the same care. Throughout the countryside, and the wards of the city, are 155 Commune Health Centres (CHC). They provide basic care, and are responsible for carrying out the national preventative health campaigns. These include water and sanitation, family planning, immunisation, prevention of childhood malnutrition, malaria control, tuberculosis prevention and follow up, prevention of Iodine deficiency, elimination of leprosy, and HIV/AIDS prevention. Many, but not all, of the CHC conduct births. Those that do have a few beds for postnatal mothers and babies, otherwise CHC do not have inpatients. At the grassroots level are more than 1400 part-time Village or Hamlet Health Workers who have received some simple training to provide basic first aid, and care in common childhood illnesses such as diarrhoea and fever (Segall et al., 2000: 9; MOH & Donors, 2001: 78, 79; Tipping et al., 1994: 1).

### ***Health system changes from socialism to market socialism***

Under the socialist system, priority was given to health as the way to increase productivity, improve educational attainment, and diminish poverty. The collectivised agricultural work brigades had 'brigade nurses, the equivalent of China's 'barefoot doctors,' who reached all areas of the country and supported the work of doctors at the Commune Health Centres (CHC). Both were financed by the commune. Almost everyone had access to free preventative health care, and health treatment when they were sick; patients only paid for subsidised medications. There were problems: an emphasis on quantity rather than quality of staff health training meant many health

workers were low or semi-skilled; salaries and motivation were low; management was often outdated; higher level resources such as doctors and hospital beds were over-provided at the cost of the primary level care (Segall et al., 2000: 1, 9; Bloom, 1997: 7). However, because of the wide reach of health care the country had better health outcomes than many countries with much higher incomes (Segall et al., 2002: 498; Segall et al., 2000: 1, 9; Bloom, 1997: 3-8).

The *Doi Moi* (renovation) reforms of the late 1980s had considerable effect on the health system of Viet Nam, not all positive. The collectivised work brigades were dissolved and their brigade nurses disappeared, leading to disarray in the health system. The commune health centres (CHC), the backbone of the health system reaching rural people where they lived, then had to rely on insufficient and erratic funding from local People's Committees, some receiving as little as 1/4 up to 3/4 of their required funding (MOH & Donors, 2001: 1; Bloom, 1997: 9). Without sufficient funding for infrastructure, equipment, drugs, training, or salaries, CHCs faced collapse, and the quality of health care at local level deteriorated significantly (MOH & Donors, 2001: 1). Private medical practice was legalised, and with labour management reforms allowing them to now change their jobs, many staff left the poor rural areas they had been assigned to. This also contributed to lowered quality of care in rural areas (Bloom, 1997: 13). The pharmaceutical industry was liberalised, and retail sale of drugs and medicines deregulated. Although this meant more variety of drugs available and reduced prices, drug consumption especially for self-medication has 'spiralled out of control'. Anyone can sell drugs, they do not have to be qualified; you can see them for sale in any local market (Bloom, 1997: 14). Visits to drug vendors account for two thirds of all health service contacts for individuals (MOH & Donors, 2001: 188). This 'excessive and irrational' use of drugs, particularly broad-spectrum antibiotics, has caused epidemic level antibiotic resistance in the country. This will lead to significant and expensive problems in trying to control all infectious diseases in the country in future (MOH & Donors, 2001: 188).

The other major effect of the switch to a socialist market economy was that user fees were introduced at most levels of the health service. This had profound consequences on household health-seeking behaviour, and on equality of access to health care. Those with enough money to pay had access to a wider range of services; those who could not afford to pay were endangered. Poor households on average spend 21.9% of their income on health care compared to 8.2% for the non-poor (Segall et al., 2002: 497; MOH & Donors, 2001: 1; Bloom, 1997: 1-3, 15). The Vietnamese Living Standards Survey 1996 found a hospital admission for one family member costs 45% of a poor household's annual non-food budget (Bloom, 1997: 17). In ill-health, poor households are forced into dangerous health and future-livelihood practices such as no care, delayed, or shortened care; they may have to go into debt by borrowing money or selling assets such as food stores, livestock or land; expenses for other items such as food may be reduced; or children may be taken out of school to work (Segall et al., 2002: 497; Tipping, 2000a: 7-8; Bloom, 1997: 15-17).

There have been some changes in the health system in response to these problems, but more are needed. The World Bank undertook a review of the health, population, and nutrition sectors in Viet Nam in 1992, and this led to the government taking some actions to strengthen and improve the health system. In 1993 a social health insurance programme began, with compulsory medical insurance for government employers; this now covers 12% of the population, mainly urban dwellers. Self employed and agricultural workers are not covered (MOH & Donors, 2001: 2; Bloom, 1997: 10, 15; WHO, 1995: 21). From 1994 the government has paid commune health centre salaries; this, plus the improved economy in the 1990s, and increased donor assistance, have all contributed to improved health care (MOH & Donors, 2001: 2). However Tipping warns that reliance on donor funding is unsustainable (Tipping et al., 1994: 2).

### ***Limitations in the health system***

A major concern is the increasing inequality between access to health care for urban and rural people, and the decreasing quality of rural health care services (Trong, 2005:

12; Tipping 2000a: 22). More than three quarters of the government health budget goes to urban hospitals, although 76% of the population live in rural areas. Private medical practitioners also tend to be based in urban areas (Segall et al., 2000: 13). Rural health services have been undermined through the loss of skilled personnel, shortage of equipment and supplies, and run down buildings. Utilisation of commune health centres (CHCs) in rural areas has dropped, as they are seen as offering inferior care (Trong, 2005: 12; Segall et al., 2002: 497; MOH & Donors, 2001: 69; Bloom, 1997: 16; Tipping et al., 1994: 1). In the more remote and mountainous regions, poor roads and lack of transport limits access to even commune level health care; at all commune centres locals complain that staff are often not present when the centre should be open, because staff are running private practices or at other jobs, to supplement their low wages (MOH & Donors, 2001: 69). More well-off rural families feel they should seek health care in districts and cities, even though it is more expensive and less convenient (Tipping, 2000a: 22).

An example is that although Viet Nam has achieved remarkable progress in the field of reproductive health (RH) in recent years, with wide coverage of RH care, the quality is not always high. Doctors, nurses and midwives at all levels need improved training, as there are serious gaps in knowledge on key RH issues, particularly on basic obstetric care, danger signs for mothers, and emergency obstetric care (DRH & SC, 2004: 48-50; UNFPA 2004: 19-21, 49). The ability to provide RH care in rural areas, particularly in remote areas, is compromised by lack of equipment and essential drugs. Only 14% of district facilities were staffed and equipped to adequately provide emergency obstetric care; no commune health centres had the full range of emergency drugs they should have, and only 6.7% had all the equipment needed (DRH & SC, 2004: 48; UNFPA, 2004: 49). It is concerning that only 1% of funding in the reproductive health field is directed to maternity and childbirth; the other 99% is concentrated on abortion, family planning and sexually transmitted disease services (RHAG, 2004: 1). Maternity seems to be a low priority.

If the quality of rural health care services was improved, local people would believe they were worth paying for and would not travel away to use higher level services inappropriately (Trong, 2005: 12; Tipping, 2000a: 22). Increased government funding and supplies, as well as improved salaries for staff, are needed to help improve quality of rural services (Trong, 2005: 12; MOH & Donors, 2001: 83). However the quality of staff training also needs to improve, particularly in rural provinces. Currently there is no standard curriculum in the training of midwives, nurses and village health workers; length and quality of training varies between each state (MOH & Donors, 2001: 128, 133; Kane, 2000: 14). As well as improved core training, there needs to be more supervision, postgraduate training, and refresher or in-service training. Currently, few staff ever receive any further education after their initial training (MOH & Donors, 2001: 129, 134-5). Training also needs to encompass communication skills and cultural safety issues; Nguyen reports that many ethnic minority people do not attend health services, or delay attending, because they feel unwelcome; they say that the staff show negative attitudes to them, and do not speak their language (Nguyen, 2004: 2). Kwast et al. confirm that research in many different countries shows that 'negative attitudes often weigh more heavily in health-seeking behaviour than demand for fees' (Kwast et al., 2003: 53).

The increased cost of health care limits access for the poor, and the government has been urged to provide a safety net for the poorest (Segall et al., 2000: xii; Tipping, 2000a: 12; Bloom, 1997: 20). In 2005 the government announced that as part of the poverty alleviation programme a system will be phased in so that by 2010 the poorest 14% of the population will not have to pay hospital inpatient fees (Trong, 2005: 12). However the need for hospital admission is relatively rare for each individual and the bulk of health spending for poor households is on the frequent but smaller local health care episodes or self care such as medication. If primary health care is reduced, need for hospitalisation may increase. It is poor health economics to subsidise hospital care but charge for the primary care at local level which may prevent the need for hospital admission (Segall et al., 2000: xiii).

An extra burden to the cost of health is the uncounted expense of the informal or 'under-the-table' payments required from family for their family member to receive care (MOH & Donors, 2001: 82). This, when combined with the official costs, exacerbates the problem of affordability of health care for poor people. Although families are happy to give a 'gift from the heart' to thank staff on recovery (Tipping, 2000a: 14-15), they resent having to pay health workers under the table to be seen or to get good care (Tipping et al., 1994: 47).

Urban hospitalisation rates are 1.5 times higher than rural hospitalisation rates, perhaps because of the 'double subsidy' for wealthier urban people; their health insurance covers much of the cost of hospitalisation, and the urban hospitals are subsidised by the government (MOH & Donors, 2001: 82). For wealthier people, 'modern' medical care is seen as 'better' and as a sign of wealth; this is leading to over-medicalisation for those who can afford it (Lee et al., 2001: 314; Bloom, 1997: 15). One example of this is seen in the increasing elective caesarean operation rate for Vietnamese urban women who can afford it, as is noted in Hong Kong and China (Lee et al., 2001: 314). The government will have to balance pressure from the better off wanting more sophisticated medical care, against the need for the poor to have access to basic essential services, if widening inequalities in health are to be bridged (Bloom, 1997: 19)

Hospital occupancy rates are high and length of stay is longer than in many other countries (MOH & Donors, 2001: 80). It is a common occurrence to have higher than 100% bed occupancy, with maternity postnatal wards frequently having 2 mothers and babies per bed. Wards are crowded, particularly as each patient needs at least 1 family member to stay; they either share the bed or have a stretcher or hammock nearby. Nursing and maternity staff only do wound dressings, and dispense medicines, injections and IV fluids; it is family members who provide food, do laundry, and provide all cares, even at times such medical care as hand ventilation when there is a shortage of mechanical ventilators. When a family member is admitted to hospital, the largest part of the cost to the family is transport to the

hospital, food for patient and carer, opportunity costs of income lost by the sick person and the carer, and sometimes the need to hire labour to do necessary agricultural work during their absence (Tipping, 2000a: 15; Tipping et al., 1994: 46). These costs could be reduced by reducing length of hospital stay (Tipping et al., 1994: 46) but there is a strong disincentive; revenue from patient fees is mainly used by the hospitals to pay staff bonuses. As salaries are low, these bonuses can make up 30% to 50% of a staff member's income: there is no incentive to reduce length of patient stay! (MOH & Donors, 2001: 78).

The excessive use of drugs is of concern; widespread antibiotic resistance, for example, is already causing more expensive care as the simple antibiotics no longer work and more expensive third-generation antibiotics are needed. Increased length of hospital stay worsens the problem, as hospital-acquired infections increase. Again, however, there is a strong disincentive to change; sale of drugs is an important source of income for health workers and health centres, and contributes to staff bonuses (Bloom, 1997: 14; Tipping et al., 1994: 48).

#### *Advantages of the health service*

Public spending on health in Viet Nam in 1999 was only 0.8% of GDP (Segall et al., 2000: 12) which is low compared to many countries, yet 'Vietnam's overall state of health is better than expected for a country at its level of income per capita' (MOH & Donors, 2001: 1). This is largely because Viet Nam still has a range of free or subsidised health care, in public health, health promotion and health prevention. Hospitalisation for under-six year olds is free, as is treatment of tuberculosis, goitre (iodine deficiency), malaria and leprosy. Although only 3% of the government's health budget goes to preventative care, these programmes are free, thus high levels of coverage have been maintained. For example 95% of children are fully vaccinated (MOH & Donors, 2001: 76; Bloom, 1997: 18).

Life expectancy continues to increase, and Infant Mortality Rate (IMR) to slowly reduce. However the urban – rural divide is again obvious, with urban IMR in 2000

of 18.3% compared to 41.0% IMR for rural areas (Poverty Task Force, 2002: 4). The government will need to closely watch events for the poorest in rural areas where health services are experiencing serious problems. Health improvements will slow or reverse if inequality of care and access to care is allowed to continue (Bloom, 1997: 18, 25). Although the change to market socialism has meant more health care options to choose from, it has exposed particularly rural people to a greater risk of low quality care, and financial difficulty in accessing effective services (Bloom, 1997: 16; Tipping et al., 1994: 1).

## **Chapter conclusion**

As this and the previous chapter show, Viet Nam's transition from socialism to market socialism means women's lives today are also in transition. While Viet Nam has a remarkable record in literacy and education compared to many other developing countries, there is a higher rate of non-completion of school levels for girls, particularly rural and ethnic minority girls. The economic reforms have benefited urban and well educated women who have more opportunities, contributing to the growing urban middle class, and the high representation of women in the National Assembly of government. Rural women and those with less education and skills have less choice. Rural women continue to work hard on the land in labour intensive agricultural production; urban women have a wider choice of low paid, low skilled jobs in new factories. All women bear a double burden as they do almost all of the household work, as well as their outside work. Some workers, including a small number of women, are beginning to join the regional labour migration working in factories in other countries, and within the country there is a growing rural – urban drift as men, and some women, leave their rural areas to seek more opportunities in the cities. More women become involved in prostitution or foreign marriage, either by economic choice or through trafficking.

As has been discussed, there is a strong cultural expectation for women to marry and have children. Responding to state policy controlling fertility, with family planning

and high rates of abortion, the fertility rate has reduced remarkably. Again, fertility rates, and both infant and maternal mortality rates are highest in rural areas, particularly in mountainous regions and for ethnic minority groups.

As a legacy of socialism, Viet Nam has a well structured health system with tiers reaching to the grassroots rural level. However a key issue of the economic reforms is that there are now fees for health services which were free in socialist days. For urban and state employees the new health insurance covers most of this; the other 88% of the population must fund their healthcare themselves (MOH & Donors, 2001: 2; Bloom, 1997: 10, 15; WHO, 1995: 21). Those who *cannot* afford care are too often forced into making poor health or future livelihood choices; they go without care, delay care, or borrow money or sell assets. Ill health in the family is frequently the cause of a tip back into poverty. Again, rural dwellers are disadvantaged. Poor people must spend a higher proportion of their income of health care compared to those with more income.

Government funding is directed more to the urban hospitals, and there are problems with lack of essential supplies, drugs and equipment at rural levels of the system, particularly in remote areas. While rural people need improved basic health care, there is a trend at the other end of the scale to see sophisticated modern medical care as desirable even when unnecessary. This over-medicalisation is seen in the rising rates of elective caesarean sections for those who can afford them.

Cultural safety is an issue which affects health care seeking behaviour in ethnic minority women, who feel they are treated negatively when they do attend; also health workers do not speak their ethnic minority languages. As ethnic minority people have poorer health outcomes, including higher infant and maternal mortality rates, these issues will need to be addressed to encourage higher health care attendance by ethnic minority people.

A critical issue in health care is the variation in quality of staff training, and lack of in-service training. The risk for women in childbirth is that they may not have what they need to be safe; they need skilled attendants who have the medication, equipment and knowledge to be able to diagnose and respond to emergencies. This is one focus of the research in the following chapters.

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**Figure 12: Private enterprise: a woman working at her sewing repair service in the alley outside her family house**



Source: Tricia Thompson

## Chapter 5: Research Methodology and Ethics

This chapter is divided into two sections. In this first section I outline how the research questions were carried through in the planning, the design of the research tools, and how the research was conducted. There were two research questions; the first was how many women have a haemorrhage at birth, what outcomes do they have, and are there any factors which put women at higher risk. The second research question was what do staff do at the delivery of the placenta, and do they display a high level of skill during this time. The issue of skilled attendants at birth is the most important single way to reduce maternal mortality, so this issue is dealt with in a very detailed way in this second research question. As both research surveys were conducted with human subjects, ethical issues were particularly important; in the second section of the chapter I examine the ethical issues regarding this research and how they were addressed.

### Research Planning

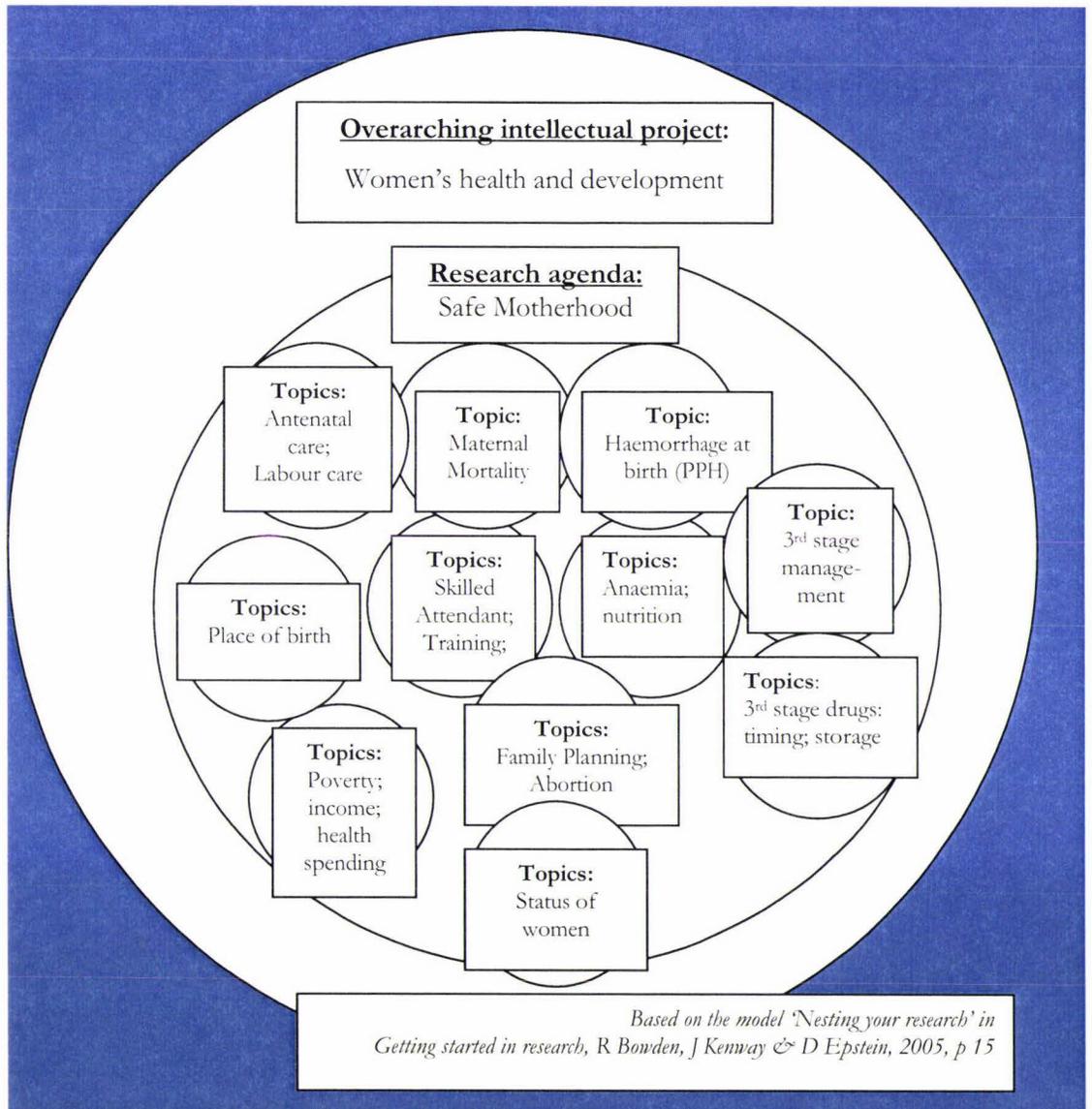
The overall research focus was to acquire information that would help to design strategies to improve maternity services and reduce maternal mortality and morbidity in Binh Dinh province. Of the many social research methods in the literature I was attracted to 'real world' research (Robson, 2002: 11). I felt its emphasis on research to solve problems and looking for actionable factors, rather than just to gain knowledge, fit my situation of trying to help the Department of Health (DOH) determine interventions that would have most impact to improve their services. An advantage of real world research is that by having those involved determine the focus of the enquiry makes it 'more likely that the findings will be both usable and likely to be used' (Robson, 2002: 11). The entire project was an ongoing cycle of liaison between the DOH, maternity staff and me. The only section in which I worked alone was the topic review; because of language constraints I undertook this myself. Discussions from two workshops, as well as many informal talks, led to suggestions for each next

step; each step was approved or amended by the Department of Health, then discussed with maternity staff. I undertook a literature search, examining university library catalogues for books on related subjects, and searching major academic websites, using relevant keywords. In New Zealand I hand-searched back copies of major midwifery, obstetric and development journals, looking for relevant articles on any aspect of Safe Motherhood or childbirth in developing countries. In Viet Nam, I searched for more country-specific data by combing the shelves of government bookshops, and the libraries of the NGO Resource Centre, the World Health Organisation, and the Viet Nam Development Information Centre.

From the discussions and literature search I listed many possible foci using a brainstorming technique to enhance thinking as suggested by Robson (2002: 47 & 57) and a mind-map to link related items. With over 20 years of experience working in maternity, more than 2 years in Viet Nam, I already knew a certain amount about the topic. Although some consider what the researcher brings to the research from their own background and experience as a bias, I agree with other authors that this 'experiential knowledge' should be utilised (Robson, 2002: 50; Maxwell, 1996: 30). The model of 'nesting your research' explained by Boden et al (2005: 15) was helpful to organise all the PPH factors into levels of importance and relationship. In this model the overarching theme that one really wants to try to understand, perhaps over a period of years, is the outer circle; within that fits the research agenda or clusters of research topics; and the small inner circles of research topics or specific individual foci that fit within the broader research agenda and the overall theme. This nesting is illustrated in my adaptation of that model, shown in Figure 4 below. In my situation, the overarching theme I want to explore is women's health and development, which is a huge subject area! Within that theme, the specific agenda I wanted to look at in this thesis is Safe Motherhood; however within that subject are many distinct topics which I had listed as a result of the brain storm discussed on the previous page. It was not realistic to address all of these topics at once; for this research I chose several

topics, or aspects of the topics, which were linked and could be addressed at the same time; other topics wait to be researched in the future.

**Figure 4: Nesting of the research**



Within the research agenda, the advice that ‘sound information is the prerequisite for health action’ (AbouZahr, 2003: 1) prompted the first research question, which was to provide sound quantitative baseline information on haemorrhage at birth (Post Partum Haemorrhage or PPH), and any factors that created a higher risk of PPH. PPH is the leading direct cause of maternal mortality in the province, as in the rest of the developing world (AbouZahr, 2003a: 1; Nguyen, 2002:25). Yet there was no reliable data on the overall occurrence of both mortality *and* morbidity from PPH in Viet Nam (PATH, 2005: 4). The available data on PPH in Viet Nam was only for women who died from PPH (MOH, 2002: 85; Nguyen, 2001: 25).

The second research question emerged because the international literature was adamant that the most important way to reduce maternal mortality is to have a skilled attendant present at all births. A major priority of that skill is to be able to recognise and treat emergencies, such as haemorrhage (Wagstaff & Claeson, 2004: 33; de Bernis et al., 2003: 37).

### ***Research questions***

In designing the specific research questions, authors advise that good research questions should be ‘do-able and answerable’ (Boden et al., 2005: 31), as well as being ‘clear, specific, answerable, interconnected, and substantively relevant’ (Robson, 2002: 59). The two research questions that were decided upon appeared to meet these criteria.

The first research question then, was to provide information about haemorrhage:

- **How many women in the province have a haemorrhage at birth?**
  - **What are the outcomes for those women?**
  - **Which women have a haemorrhage at birth (PPH) and what risk factors, if any, do they have in common?**

The literature was clear about the importance of skilled attendants, but the World Health Organisation (WHO) warned that, worldwide, not all staff are trained to that standard (WHO, 2001: 1). The Provincial Department of Health (DOH) had

convened a conference involving myself, DOH professional division staff, and maternity staff from throughout the province to discuss haemorrhage at birth (PPH) and possible approaches to the problem. The third stage of labour is the stage when the placenta is delivered, and is the most common time for a haemorrhage to occur. It became apparent that there were variations in practice, techniques and medications used in the third stage of labour at different centres and amongst different staff. Did locally trained staff provide the WHO standard of care of being able to diagnose and treat an emergency?

Thus the second research question developed:

- **How did staff manage the third stage of labour, and were there any areas of skill that needed to be strengthened?**
  - **Did staff demonstrate a good level of skill, particularly at diagnosing and treating haemorrhage when it occurred?**

### *Research methodology*

The two research questions required different approaches to obtain answers. The research methodology decided on to answer the first research question was a retrospective questionnaire, to provide quantitative data on outcomes, and answer standardised questions. To avoid confusion, in the remainder of the text I shall refer to this research as Survey 1.

The second research question could not be answered as simply. I needed to gather data about practices and techniques utilised, the timing of actions or interventions, medications used, and response if an emergency arose. While some of these could be answered in a questionnaire format, direct clinical observation was required for most. I specifically needed to know if the intellectual knowledge of 'what to do' was being translated into practice. In other work situations I had encountered before in the province, it had become apparent that the educational style of the country meant that staff could recite large tracts of learned information, although they did not 'do' that in

the work situation. I did not want to have staff 'say' what they did, it was important to see what was actually done.

The research methodology I therefore decided on was a series of descriptive case studies from direct observation, utilising a structured data collection system. I needed to investigate third stage management in the full context of the history and the real-life unfolding events of that particular case. Yin writes that case studies can be a useful way of carrying out such an investigation, and advises involving multiple cases to improve the validity and reliability of the results (Yin, 2003: 13, 34 - 36). Research theorists advise that certain situations call for the research observer being an involved participant who describes what is done or said, while in other situations the observer needs to be detached or structured, being 'outside looking in', and classifying what they see as part of a quantitative observation (Gillman, 2000: 46 - 52). I chose this latter style as I believed a more detached observation was needed to objectively detail what was done. To avoid confusion, in the remainder of the text I shall refer to this research as Survey 2.

### *The research tools*

For survey 1, a questionnaire simply to determine the rate of haemorrhage at birth (PPH) and the outcomes for those women who had a PPH would be reasonably straightforward. It was a more complex task to include the search for risk factors within a questionnaire. From the researched literature I drew up a list of 27 factors which may be associated with increased risk of PPH or death from PPH (Prendiville et al., 2003; AbouZahr, 2003; de Bernis et al., 2003; El-Refaey et al., 2003; Kaye, 2003; Lewis, 2003; Pattinson, 2003; Festin, 2003; ICM & IFGO, 2003; UNDG, 2003; Rodeck, 2003; Gulmezoglu et al, 2001; Nguyen, 2001; Shane, 2001; WHO, 2001; ALSO, 2000). The full risk list is included as Table 3.

**Table 3: Possible risk factors for haemorrhage (PPH) or death from PPH**

No.	RISK FACTOR
<b>✚ Antepartum (pre-birth) factors, including obstetric history:</b>	
1	No Antenatal care
2	Vaginal bleeding in pregnancy
3	Pre-eclampsia (toxaemia or high blood pressure in pregnancy)
4	Primiparity (women having first birth)
5	High parity (> 4 births previously)
6	Age (< 20, and 35 or over)
7	Low socio-economic status
8	Multiple gestation (twins or triplets)
9	Previous haemorrhage at birth (PPH)
10	Previous caesarean section operation
<b>✚ Intrapartum (during birth) factors:</b>	
11	Induced or augmented labour (labour artificially started or speeded up)
12	Arrest of descent (obstructed labour; baby fails to descend so as to be born)
13	Assisted delivery (required forceps or ventouse (vacuum) to deliver baby)
14	Caesarean section operation
15	Episiotomy (cut to enlarge the vagina at birth)
16	Lacerations (to cervix, vagina, or perineum (skin below vagina))
17	Prolonged third stage of labour (stage of delivery of placenta)
18	PPH requiring blood transfusion of 2 or more units of blood
<b>✚ Health system, or use of health system, factors:</b>	
19	Not having skilled attendant at birth
20	Transferred as emergency obstetric problem
21	Delay in going to a health centre, or in seeking medical help
22	Delay in referral to higher level health centre
23	Poor problem identification (diagnosis)
24	Incorrect / poor treatment and monitoring
25	Poor monitoring of postnatal blood loss, especially the slow trickle of blood
26	Poor monitoring of condition postnatally, especially after caesarean
<b>✚ Not categorised:</b>	
27	No predictive signs!

I drew up a grid to establish if those 27 potential risk factors were easily measured and therefore could be included in the questionnaire. Of the 27 factors, questions for 13 of them could be included in the Survey 1 questionnaire. Another 7 of the other risk factors, including 4 about the quality of staff diagnosis, treatment and

monitoring, were suited to Survey 2's direct observation. A preliminary version of the questionnaire was prepared, and after approval from the Department of Health, was discussed with the 15 midwife trainers who had agreed to be the research supervisors for Survey 1. My original intention to obtain the data from a retrospective chart audit proved impossible due to deficiencies in the quality of record keeping within the health system. The plan amended to become a form that would be filled in partially from the current maternity record and partially from the midwife in attendance at the birth.

The questionnaire was almost entirely in the form of tick-boxes; this was so it would be easy to use for the more than 200 potential research assistants, and so that it would provide standardised data for collection for me as the researcher. It is recommended that a research pilot study be undertaken so as to avoid as many mistakes as possible (Shipman, 1981: 91). As the survey tool evolved it was tested at workshops with midwives at different levels of the health system - hospitals, districts and communes - using case studies to test various common situations they may encounter at those different levels. This testing revealed some differences in terminology and cultural understanding between midwives of the two countries, which had to be ironed out. Before finalisation, the survey tool underwent further small amendments to meet ethical requirements after feedback from the Massey University Human Ethics Committee. The English translation of the final Survey 1 form is included as Appendix 3.

For all of the literature on PPH (for example, Levine et al., 2004; Gulmezoglu et al., 2004; McDonald et al., 2004; Prendiville et al., 2003; Sharma et al., 2003; Pattinson et al., 2003; Kaye et al., 2003; Joy et al., 2003; ICM et al., 2003; Humphrey, 2003; Higgins, 2003; Festin et al., 2003; El-Refaey et al., 2003; de Bernis et al., 2003; Villar et al., 2002; Elbourne et al., 2001; PATH & USAID, 2001; WHO, 2001; WHO et al., 2000; ALSO, 2000; WHO 1996; Prendiville et al., 1988a & b; Prendiville et al., 1989) there was remarkably little research available on specific details of management of third stage of labour which might guide this research. The one study which was

helpful had only looked at whether 3 specific actions were carried out (Festin et al., 2003). It seemed I would have to develop the observation tool from scratch. It had to be a standardised recording tool to be accurate, consistent, and easily used; it also had to fit on one page, to avoid turning pages backwards and forwards at vital moments. I utilised the same list of potential risk factors for PPH as shown in Table 1 above, and included those factors related to skill levels that could only be assessed by observation. I devised the form using tick boxes, but with space for comments if required. It looks 'messier' and is more cramped than the Survey 1 form, but I would be the only person using it. Again, some amendments were made to the survey form to take account of ethical requirements after feedback from the Massey University Human Ethics Committee. I piloted the checklist at several births and refined it to be easier to use, and more complete. The finalised checklist is included as Appendix 4.

An important aspect of the survey would be the assessment of blood loss. The literature describes 3 methods used in research to estimate blood loss (Magann et al., 2005: 291; Festin et al., 2003: 286; Strand et al., 2003: 215; Choy, 2002: 174; Gulmezoglu, 2001: 690; Khan et al., 1997: 771; Soriano et al., 1996: 1069; Razvi, 1996), but only the first of these seemed feasible for this research. The most common method was simply the involved staff member's visual estimate. The second method was to collect and measure the blood. Although more accurate I decided this method was too intrusive for an observer to do. The newest and most accurate method is to take blood samples from the woman before and after birth and measure the haematological changes as evidence of blood lost from the circulating system. This would be expensive and logistically difficult, as samples must be tested in one laboratory within a set time. I determined to be as accurate a visual estimator as it was possible for a discreet observer to be, by noting each episode of blood loss as it emerged, and adding up the total. Experiments with simulated liquid honed my skill in visual estimation.

### *Participants and Survey Samples*

In Survey 1, the participants are the maternity institutions, or private practitioners who attend birth outside of the institutions, who would provide data obtained from their maternity patient records. The women whose birth records and health information was used in this way were the indirect participants. The ideal sample for the survey was to have a form for every woman in the province who had a baby during the defined 30 day survey period. In reality it was never going to be so straightforward!

The Department of Health gave formal consent for all of the 168 health facilities under their authority to participate in both surveys, either by providing information from medical records or access to potential participants, and for their midwives to be research assistants; the directors of those hospital and district centres had also consented. Thus data could be collected from what was estimated may be anywhere between 800 and 1800 births that may occur during the survey period in those Department of Health facilities, 3 hospitals, 10 district health centres and 155 commune health centres.

However not all women give birth in an official facility, and it was not certain how many births occur 'out of hospital'. As with many developing countries, statistics and vital registration are not complete, particularly where birth (or death) occurs outside of a Department of Health hospital or health centre. Some women, perhaps 20% of urban women and up to 80% of women in the remote mountainous districts, give birth in a private birth room at a midwife's house, or stay at home to give birth, either by choice or because of lack of money to pay for care.

To obtain data for those women I would need to reach the practitioners, whether midwives or Traditional Birth Attendants (TBAs), who attend those births, and see if they would consent to participate in the survey. Although in the northern hill tribes areas of Viet Nam, as in many countries, TBAs attend home births, this is not the case in central Viet Nam. The custom amongst the ethnic groups in Binh Dinh

province was for the woman to be alone during labour and birth, or perhaps attended by her husband. '*Kinh*' (ethnically Vietnamese) women who birthed at home would generally be attended by a midwife. Private practitioners do not have to be licensed and are not listed anywhere; they may be known within the local community but were not easily accessible to me as a foreigner. I planned a 'snowball technique' to find private midwives who may be willing to participate in the survey. This technique of purposive sampling, asking one person if they can suggest others, can be useful when there is difficulty in finding members of the population to be surveyed (Robson, 2002: 265; Neuman, 1991: 198). I planned to do that, but in fact the midwife trainers took the matter out of my hands! Smiling kindly at my naivety, they said they would do the talking and recruiting, as private midwives would not talk to a foreigner they did not know. This also avoided any potential difficulties of consent, as it may be easier to decline to one of their own people than a foreigner.

For Survey 2, the direct participants would be the maternity facilities under the authority of the Department of Health in Binh Dinh province, and the maternity staff who work in them. The women giving birth in the centres at the time of the study would be indirect participants. I planned to be present and observe at 100 births in at least 10 participating health centres during the same 30-day study period in which survey 1 was being undertaken. A sample size of 100 births was chosen as a realistic sample number of case studies that would provide sufficient information to achieve the survey objective. I wanted to observe practice at each hospital and at least one centre from each district across the province, so that a broad representation of practice would be observed. By using non-probability quota sampling, I determined the approximate number of births to observe in each district, based on the province's population that live in that district and the estimated annual number of births in that district.

A potential problem with this type of research is reflexivity or the 'observer effect.' That is, the event may occur differently simply because it *is* being observed (Yin, 2003: 86). I tried to minimise any possible effects by explaining the research purpose,

and paying attention to strengthening the relationships and trust between the staff and myself before and during the research, as well as debriefing with them afterwards. This is exactly what Gillman recommends when he says ‘telling them your purpose is part of your openness, much of your identity, and it may be helpful’ (Gillman, 2000: 53).

A concern had been raised from New Zealand reviewers that I would not be able to adequately observe all that I had planned to. This issue of ‘vantage point’ is raised in Gillman (2000: 57). In a modern New Zealand maternity department, where women are isolated from each other in individual rooms for labour and birth, this would indeed be a problem. In this case the Vietnamese norm of collectiveness (what is seen from a New Zealand perspective as lack of privacy) was helpful. Women came to birth 1, 2, or 3 together in one room; thus one researcher could observe all births at that centre readily from one vantage point.

#### *Undertaking the research*

Meetings and workshops for hospital officials, maternity doctors and midwives were held at each of the hospitals and in all districts to give an overview of the PPH research project, and discuss the two surveys. The 15 midwife trainers attended training to be the research supervisor for their hospital or district. They then assisted at a series of workshops throughout the province at which 240 midwives from hospitals, district health centres and commune health centres were trained as the research assistants. The midwife trainers provided the necessary training to the private practitioners they recruited.

For Survey 1, specific dates were agreed on for the survey period, forms were distributed, and the research assistants were instructed to fill in a survey form for every woman who came to have a baby at their centre, or under their care, over a continuous 30 day period from that date. Although the research supervisors were the first ‘point of call’ for any questions or problems that arose, Miss Binh (my interpreter) and I also visited each hospital and district health centre several times

during the survey period for support and supervision, and Binh was available by telephone. At the end of the survey period I returned to each district to collect all of the forms, before collating and checking them. Data from each form was then entered on a pre-tested Excel spreadsheet for analysis.

Planning for Survey 2 was more complex, and needed to take account of the way in which midwives work. Most midwives at a health centre work during the day, with 1 or 2 midwives working a 25 hour 'duty shift' responsible for all admissions, births and emergencies during their shift. The only exception was the largest hospital, which had a system of 2 duty shifts of 13 hours per day. The duty midwife/s lived in the maternity ward for that time; they cooked, showered, and slept at the centre and were not permitted to leave. At night they would sleep in the duty room, and the family caring for the woman would wake them as required, for an admission, a birth or an emergency. Around the world, more births seem to happen at night, so it made sense to be in attendance at centres in 'duty shift' blocks, to be with the same staff and be present throughout the night. I drew up a timetable for the planned 30 days survey period, allocating blocks of 24 hours attendance at various centres, planning to observe at all consenting births at that centre until the quota number of births for that district had been reached.

Special permission had to be obtained from the Provincial Peoples Committee and various authorities including the police, and the local authorities of each district, for me to be allowed to stay overnight in the rural districts and to be permitted to do so without an official interpreter or chaperone, as it was not normal for foreigners to be allowed to do this. There followed a months wonderful privileged experience, living with, sharing with, and being cared for by the duty midwives in their environment (An extra experience was chatting with, being followed by and observed in every action by the family and bystanders unused to having a foreigner live amongst them!) At the end of the 30 days I had not achieved the target of 100 births, so for a further 2 weeks I was 'on call' and crossed the province in response to phone calls that a woman was in labour at a health centre. At the end of the 6 weeks I had attended 102

births at 13 centres; I was not able to observe a birth in 1 of the 3 small remote mountainous districts, unfortunately, as there were very low numbers of births and they happened quickly! I decided to withdraw two of the forms from the survey, as extreme prematurity was a confounding factor; both third stages differed from any other observed practice, with the placenta removed by instrumental Curettage (D&C). With 100 valid forms, the survey was complete. Data was entered into a prepared Excel spreadsheet for analysis.

### **Ethical issues for the research in these two surveys**

Working in a different country and language to one's own can lead to unknown cultural gaffes or indiscretions. Although I had already lived and worked in the province for over 2 years, I am not Vietnamese; although I can read, write and converse in Vietnamese, my language skills were limited. It was vital to have local support and guidance for the research project to proceed. Since I had arrived in the province, I had worked with Miss Tran Thi Thanh Binh as my interpreter. But more important than simply interpreting, Binh had been my cultural guide; she had been indispensable in helping me to establish relationships with officials in the province and within the health system. Through her I had learnt how to navigate complex bureaucracy with a calm smile and cups of tea! Binh had ensured I learnt the importance of establishing a warm relationship with maternity staff before any learning could take place, of understanding how people look to see if your 'heart was warm' (that you care about the people) before they would listen to your words, and of listening to the unsaid. Without her assistance it would have been difficult to do this research, so I was very grateful that Binh believed in the importance of it, and trusted me enough, to agree to be a cultural advisor for this research project.

At the Binh Dinh Provincial Department of Health the Director, Dr Nguyen Thi Thanh Binh, and the Vice Director, Dr Ho Viet My, were an integral part of the research concept and planning. Dr Binh was an obstetrician before she became an official at the Department, so she had a keen interest in the project, and was

particularly enabling. Dr Binh and Dr My both formally agreed to be my Vietnamese supervisors, and cultural advisors for this project. They gave formal written consent for Department of Health (DOH) facilities to be used for the two research projects, for DOH midwives to be research assistants and to access charts for this purpose, and for women using DOH facilities to be approached about being potential participants in the second (observation) survey.

Conducting research ethically means that one must 'follow a code of conduct for the research which ensures that the interests and concerns of those taking part in, or affected by, the research are safeguarded' (Robson, 2002: 18). Ethical concerns may range from reasonably clear-cut issues such as informed consent, privacy, confidentiality and anonymity, ownership of data and conclusions, and the use of results, to matters such as honesty and trust, reciprocity, intervention and advocacy, harm and risk (Punch, 2000: 59; Burns & Grove, 1999: 152 - 170; Polit & Hungler, 1997: 127 - 134). Virtually all of these issues had to be dealt with in preparing the ethical groundwork for these two research projects.

In the first survey, data about the birth and obstetric history of maternity patients would be entered on questionnaire forms by research assistants. The birthing women would not be directly involved in the research; however it was anonymous, non-identifying data from their patient records that was being recorded, so they would be indirect participants. The women would be anonymous and non-identifiable to me, but the research assistant midwife filling in the form would have access to her health information records. Midwives may already be expected to be discreet and confidential about personal or health details of their patients which they may learn as part of their employment. However in order to emphasise the importance of this, each research supervisor and research assistant signed a Confidentiality Agreement. An English copy of this is included as Appendix 2.

The direct participants in this survey were the health centres, both Department of Health facilities and private places of birth, and the individuals who worked there.

There was a potential risk of harm in terms of official disapproval or censure of institutions and or the staff who work in them, to private practitioners, or of the women who chose to use those services, if there was an adverse outcome at a birth. The issues of 'blaming' and 'disapproval' were discussed with the Department of Health and they agreed that the purpose of the research was not to apportion blame, rather to find out current practice and outcomes, so that strategies could be developed to overcome the problems. Because the top health officials had that attitude it was hopeful that individual centres would also follow.

To assist in this aim, the survey form was designed so that individual centres, individual staff, nor individual women, could be identified. At the end of the surveys I would write a report for the Department, in which all results would be reported only as aggregate data for groups of women, for example 'rural or urban', or 'women having their first baby', or 'induced labours'. The raw data would be kept in protected storage and 'owned' by the researcher; the Department would only 'own' the written report.

In the second research project involving observation at 100 births, there were extra ethical issues involved. It was not just dry data from a chart being recorded: staff practice was being directly observed. Each Health Centre Director was asked to discuss the research with the maternity staff and ensure they agreed to the research taking place. Although consent had been obtained from health officials for their staff to be observed, I knew that in reality the midwives would have no choice about participating; in a socialist state people are used to doing as they are told. I was conscious of the potential for an exploitative relationship; for the past 2 years I had been treated by the midwives as an honoured teacher, yet now I would in essence be 'spying' on these friends and fellow midwives. This raised unique ethical issues of honesty and trust (Punch, 2000: 59). What I wanted to create was what Robson described, of real world research, as 'an active symbiotic relationship between researcher and researched – a partnership between equals', and 'a genuine exchange

where the research is negotiated' (Robson 2002: 11). How to do this when it involved observing and reporting on what they did?

What I could do was have many discussions with the midwives about safety for them and about confidentiality from me. I assured the midwives that I was not looking to know about any individual's practice, but about trends in practice in general. They were assured that the name of the centre, the staff member's name, nor even their profession, was being recorded. They tested me and our relationship of trust by asking what I would do if they did something wrong while I was observing. I responded that as I was still their teacher, if I did see wrong practice I had to do something about it; but promised that I would discuss the concern with them and their trainer, and not directly to authorities.

I was conscious of the potential 'observer effect' however, and did not want them 'studying the right thing to do'; I needed to observe what they actually *did*. I therefore decided to only discuss the research in general terms, so I did not show the full details of the survey form to the staff, and kept it in English, which prevented almost all staff from reading it. I explained in general terms what I would be looking for, such as risk factors like episiotomy and Oxytocin infusion, and looking at the time of placenta delivery, techniques, drugs given and dosages et cetera.

The indirect participants of this research were to be the women in labour and giving birth, who were patients in a health centre. They were to be asked to consent to this foreign researcher being present in the room during their birth. Being a patient makes them potentially vulnerable in any society; what makes them more vulnerable is that they are also citizens who are used to doing what their government or those in authority tell them to do. Informed consent was a foreign concept in this society. Obtaining consent was not something that had been done before in the health system in the province, so the issue of informed consent had to be introduced at the workshops and discussed. Staff (and officials) opinion was that 'if someone came to hospital then they were giving their consent to have whatever the doctor decided

should be done'. I tried to explain a broader picture! My cultural advisors, while trying to understand 'my' need for informed consent themselves, advised that written consent was likely to be seen as threatening, for patients to sign their name to something formally when the whole concept was so new. It was therefore decided that verbal consent should be obtained instead. This decision also took into account any potential problems with literacy, particularly in remote areas, or amongst the older generation of the family from whom the woman would need to obtain permission to give consent.

It was agreed that when I was at a participating health centre, the duty midwife would approach women in labour and obtain verbal consent to my being present in the delivery room during their birth to carry out the observational survey. I did not want to approach the women directly, as I felt it may be harder for them to decline consent to a foreigner. At the workshops midwives practiced scenarios of asking the woman for her verbal consent to my being there as an observer, explaining to the woman that she didn't have to agree to my presence, and that her care would not be affected if she chose not.

A particular ethical dilemma related to this research was the issue of what I should do if I observed poor practice, or indeed a disastrous outcome of third stage. On the one hand, these were qualified Vietnamese midwives and doctors, working in their own country. On the other hand, this is a country with a much higher rate of maternal deaths, and deaths from haemorrhage, than my own country. Who would be the advocate for the birthing woman?

My working role for the Department of Health was not as a clinical midwife; my role was to train midwife trainers, educate trainers and midwives, and advise the Department of Health about strategies to improve maternity services. I wrestled with the ethical dilemma of whether as a midwife I could simply be a researcher and observe management of third stage that was not best practice, when I may be able to perform the practice more safely. After reflection, I reached the decision to simply be

a researcher and observe practice up until such a point as an emergency may occur. In this situation I defined an emergency as blood loss reaching 300 mls to 500mls, or a lesser blood loss from which a woman showed signs of being affected. After that point (if it were reached), if I judged that the emergency was being dealt with correctly and effectively, I would continue to observe; however if I judged it were not being dealt with correctly or effectively, I would cease being a researcher and intervene clinically. I would include the data from that birth in the survey, including noting the fact that I had to intervene. By observing exactly what does occur, and the point at which intervention was needed, I would still be able to judge any educational and training interventions which may be needed.

After working through all these issues the completed Application of Approval of Proposed Research involving Human Participants was presented to the Massey University Human Ethics Committee at the April 2004 meeting. The proposal was provisionally approved from that meeting, and after making some amendments requested by the committee received full approval in June 2004.

The questionnaire survey proceeded smoothly, with no concerns noted about ethical issues. During the observation survey, no women declined consent to be at their birth; indeed several times women and their families requested I stay on for their birth when I was due to leave a centre. Although during the planning process my main concern was whether I would need to intervene clinically if women were endangered, no major problems eventuated during the survey. I did intervene several times in small ways, as noted in the survey findings in the next chapter; this was well accepted by staff. In reality during the field work, what came to be more concerning to me was in observing a level of care which was generally adequate but not ideal, due to under-treatment and under-monitoring. A lot of issues were dealt with in informal talks and discussions with the midwife or midwives involved as they arose, and with the trainers. However at the conclusion of the survey, while not wanting to get the midwives into trouble with their employing body, I did want to advocate for an improved level of care for women. When it came time to write the overall report

for the Department, I resolved this dilemma by writing an overall plan for establishing best practice care in third stage of labour, rather than reporting on faults. I believe that I was able to resolve the concerns in a way that would benefit birthing women, the midwives and the Department, and that the research was therefore carried out and concluded in an ethical way.

## **Chapter conclusion**

The research I carried out was real world research, to help address an actual local problem. Maternal mortality needs to be reduced, and as haemorrhage at birth (PPH) is the leading cause of such deaths, reducing PPH will help to reduce deaths in women in childbirth in the province I was working in. In reviewing the research that was carried out, a major shaping force was that I was working with local officials and staff to address this key health issue of their community. Not only was their help and support vital to the planning and success of the research, it meant that the research findings were more likely to be used.

The research was in two parts; in the first survey retrospective data was gathered and analysed to determine rates of PPH, and to study risk factors which may be associated with it. Midwives filled in a form for every birth that they could in a 30 day survey period. As some births occur outside of health facilities or unattended by a midwife, we could not hope for full coverage. As having a skilled attendant at births is the critical factor in reducing maternal mortality, in the second survey I observed at 100 births, focusing on staff practice and skill level.

The particular ethical issues involved in this research ranged from confidentiality and anonymity, to informed consent for participants. As this was a new concept in this environment, education and training were required about the concept and how to address it in this context. The two biggest ethical concerns were around safety for staff whose practice was being observed, and safe care for the women giving birth. I believe these were both resolved in an ethical manner.

## Chapter 6: Research Findings

*'Vietnamese grandmothers start to have a little faith in the doctors and midwives, but they still have more faith in the gods.'*

*Tran Thi Thanh Binh,  
interpreter explaining the altars outside maternity departments*

In this chapter relevant findings from each of the research surveys are presented and interpreted. During the research or the writing up of the research, it became apparent that I would need to clarify some professional terms used, and to clarify the criteria used to objectively assess certain factors and actions. These have been explained where they first arise within the text, and apply to both surveys.

### A. Research Survey 1

#### *Sample*

There were 1455 forms returned in this survey, representing 1441 women who gave birth in the 30 day survey period. Fourteen women transferred to a higher level centre before the birth. Only the form involving the details of their births was used in the survey; their first form was discarded to avoid duplication of data.

#### *How complete was this sample?*

What percentage of the total births in the province in that 30 day survey period do these 1441 births represent; it is impossible to know with absolute accuracy, but I have estimated that it may be about 70%. As detailed in Table 4, there were 1380 births in Department of Health (DOH) run facilities during the survey period, that is, at hospitals, district health centres and commune health centres. There was a 100% return of forms from 167 of the 168 DOH facilities; unfortunately, the largest hospital was understaffed and only filled in forms for half of their births (137 of 283 births or 48%). This centre generally has a 50 - 55% caesarean section rate, so it is likely that data is missing for approximately 55 vaginal births and 90 caesareans. As

outlined in the previous chapter, it was never going to be possible to obtain data for all the ‘out of hospital’ births. Data was obtained for 81 private clinic births and 126 homebirths, which represents perhaps 30% of the out of hospital births in the 30 day survey period, as detailed in Table 4. This estimate is based on average annual birth numbers for 1998 & 1999 as the only available comparison data (Nguyen, 2001: 12). This figure is adjusted 10% downwards, as the midwives involved noted that the survey was conducted during a ‘quiet’ season for births. Seasonality of birth is common in agricultural societies as Chambers notes (Chambers et al., 1981), and is particularly noticeable in Confucian societies who attach importance to lunar dates of birth (Lee et al., 2001: 314).

**Table 4: Estimated number of births in the province in the 30 day period**

Birth place	Number of births	Number of forms received	% of births ‘captured’ in survey
Hospitals	572	426	74.5%
District Health Centres	482	482	100%
Commune Health Centres	326	326	100%
‘Out of hospital’ births *	690 *	207	30% *
<b>Total estimated births:</b>	<b>2070</b>	<b>1441</b>	<b>69.6%</b>

(\* estimate)

### *Research findings from Survey 1*

#### **Characteristics of the 1441 women**

- ***Area of woman’s residence***

As the hospital with 146 missing data is in the province’s only city, as outlined in Table 5 the percentage of urban women included in the survey is only 11%, which is lower than the 16% of the overall population of the province who are urban dwellers. As has been discussed 90% of people in poverty in Viet Nam live in rural areas (UNDP, 2004: 15; Castella & Quang, 2002: 1), with the most disadvantaged living in the mountainous areas (UNDP, 2004: 3; UNFPA, 2004: 49). In the

following Table 5, the data on rural area is therefore broken down further into the Vietnamese classifications of rural ‘delta and flatlands’, which are wealthier rice growing agricultural regions and where 63.8% of the population live, and rural ‘midland and mountainous’ where land is poorer for agriculture, and where 19.9% of the population, including almost all of the ethnic minority people, live (UNFPA, 2003: 13; Nguyen, 2001: 10-12). The table also shows that 16 women in the survey usually live outside the province, but have returned to their husband’s or their family’s home to give birth and be looked after during the 30-day *ngbi sau sinh* period of rest after the birth.

**Table 5: Area of residence of 1441 women**

	Place of residence of the 1441 women in this research		Residence demographic of province
	No.	%	%
Urban	158	11.0	16.4
Rural	1267	87.9	83.7
• <i>Rural delta &amp; flatland:</i>	973	76.8	63.8
• <i>Midland &amp; mountainous:</i>	294	23.2	19.9
Out of province	16	1.1	-
Total:	1441	100	100.1

- *Ethnic grouping of the women*

Binh Dinh province only borders the central highland provinces which have a high percentage of ethnic minority people. Thus although the percentage of ethnic minority people in Viet Nam is 14% overall, in Binh Dinh province it is only 2% (UNFPA, 2003: 13; Nguyen, 2001: 10-12). As the following Table 6 indicates, the representation of ethnic minority ethnicity in this survey is a little lower at 1.5%. This reflects the fact that a high number of these women are known to birth at home without a skilled attendant (Nguyen, 2004: 2; DRH & SC, 2004: 46; UNFPA, 2003: 13; WHO, 2003b: 18), and thus were not able to be reached for this survey. Table 6

indicates that the proportion of *Kinh* (ethnically Vietnamese) women in the survey (98.3%) is virtually equal to the demographic of the province which is 93% (UNFPA, 2003: 13; Nguyen, 2001: 10-12).

**Table 6: Ethnic grouping of 1441 women**

	Ethnic grouping of 1438 women in this research		Ethnic demographic of province
	No.	%	%
<i>‘Kinh’</i> (ethnically Vietnamese)	1416	98.3	98.0
Ethnic minority group	22	1.5	2.0
• <i>Bana</i>	14	0.97	1.04
• <i>Hre</i>	7	0.48	0.52
• <i>Muong</i>	1	0.06	<0.03
Missing data	3	0.2	
<b>Total:</b>	<b>1441</b>	<b>100</b>	100

• *Age group of the women*

The women ranged from 13 to 47 years; mean age was 27.4 years. As seen in Table 7, I have grouped the women in age ranges, as it is women in the younger and older age groups (less than 20, and 35 or older) who are at greater risk of haemorrhage, as well as other complications (Wagstaff & Clacson, 2004: 33; World Bank, 2003: 18; McMurray et al., 1998: 7; Anderson, 1989: 62-63).

**Table 7: Age group of 1441 women**

Age group	No.	%
< 20 years	48	3.3
20 – 34 years	1230	85.4
35 - 40 + years	160	11.1
Missing data	3	0.2
<b>Total</b>	<b>1441</b>	<b>100</b>

- **Parity**

Parity (P.) is the number of times a woman has given birth before this time. As shown in Table 8. in this sample, half the women (50.8%) were in the ‘normal risk’ group, giving birth now for the second, third or fourth time (that is, they have given birth one, two, or three times before). The other half of the women were in groups that place them at higher risk for haemorrhage; 48.2% of women were giving birth for the first time, and 1.1% of women had given birth more than four times already (having fifth to eighth birth now). As discussed in the literature review chapter, it is common in many developing countries for rural women to have large families, particularly amongst women with low educational levels (Wagstaff & Claeson, 2004: 33; World Bank, 2003: 18; Tran & Le, 2000: 94; Murthy et al., 1999: 22-30; McMurray et al., 1998: 7; Jeffery & Basu, 1996). Comparatively, there are a very low percentage of women in this survey having more than four births. Possibly this reflects Viet Nam’s high literacy levels amongst women, but more probably is a result of majority obedience to the state population policy, following Viet Nam’s long standing ‘one-or-two-children’ edict.

**Table 8: Parity group of 1441 women**

Parity group	No.	%
P. 0 (no births before; this is first birth now)	694	48.2
P. 1, 2, 3 (having 2 <sup>nd</sup> , 3 <sup>rd</sup> or 4 <sup>th</sup> birth now)	732	50.8
P. 4 + (had more than 4 births before)	15	1.1
<b>Total</b>	<b>1441</b>	<b>100</b>

**Characteristics of the 1441 women’s current pregnancy**

- **Antenatal care in this pregnancy**

When women have no antenatal care, both they and their baby are at high risk of complications (Wagstaff & Claeson, 2004: 49; ALSO, 2000: J2). They receive no preventative care, such as immunizations to prevent tetanus in mother or newborn, and there is no early detection or treatment of problems, including no detection and

treatment of high blood pressure or anaemia. Anaemia is a major problem in developing countries, and a high risk for women if they haemorrhage (MOH, 2003: 25; van den Broek, 2003; Harrison, 2003: 112; van den Broek, 1998). In Viet Nam the Ministry of Health is trying to promote the benefits of antenatal care, and their current goal is for all women to have 3 antenatal checks in their pregnancy (MOH, 2003: 22). In New Zealand, women commonly have 10 or more such checkups. In the following Table 9 I have categorised women as having no antenatal care (no checkups), some antenatal care (1 or 2 visits), or that they reached or exceeded the goal of 3 visits. Of the total women, 59% achieved this minimum level of antenatal care. Data from this survey not directly reported here indicates that amongst women living in the remote mountainous regions only 46% received that level of care, and amongst ethnic minority women the total was even lower, only 22% (Thompson, 2005: 4). This aligns with the literature, which shows isolated and ethnic minority women are less likely to have antenatal care (WHO, 2003: 10; Poverty Task Force, 2002: 12; WHO, 1995: 29).

**Table 9: Antenatal care in pregnancy for 1441 women**

<b>Antenatal (AN) visits</b>	<b>No.</b>	<b>%</b>
<b>NO antenatal care</b>	91	6.3
<b>Some AN care (1 or 2)</b>	467	32.4
<b>3 or more AN checks</b>	855	59.3
Missing data	28	1.9
<b>Total</b>	<b>1441</b>	<b>99.9</b>

**Characteristics of the 1441 women’s labour and birth**

• *‘Admission’ to place of birth*

I have used the term ‘admission’ as an encompassing term, although of course women who have a homebirth are not actually ‘admitted’ anywhere. As shown in Table 10, 99.1% of women were routine admissions or non-emergency transfers. Women who are admitted to hospital as an emergency are at high risk of

complications including haemorrhage (Kaye et al., 2003; ALSO, 2000). Table 10 shows that only 13 women (0.9%) were in that category in this survey.

**Table 10: Admission to place of birth for 1441 women**

	No.	%
<b>'Normal admission'</b>	1419	98.5
<b>Emergency admission</b>	13	0.9
<b>Non-emergency transfer</b>	9	0.6
<b>Total</b>	<b>1441</b>	<b>100</b>

#### Characteristics of blood loss of 1220 vaginal births

- *PPH definitions and categories of blood loss*

Haemorrhage at birth (PPH) is usually defined as blood loss of 500mls or more after childbirth (Hassim, 2003: 160). However, as anaemic women may be affected by much less blood loss than that, the World Health Organisation defines a blood loss of 300 mls or more as a PPH in developing countries, as many women in those countries are anaemic (WHO, 1998). Vietnamese health officials and maternity staff concur with that definition, so in this study a haemorrhage was considered blood loss at birth of 300mls or more.

- *Blood loss and PPH for 1220 vaginal birth women*

A limitation in the results is that 53 (4.3%) of the 1220 vaginal birth survey forms were marked 'unknown' blood loss, thus the following results in Table 11 are for 1167 births for which blood loss data is available. Unfortunately, 80% of 'missing data' cases are from births at home or a commune health centre in a mountainous region, leading to data missing for more than half the ethnic minority women, who are amongst the most disadvantaged and at risk group (Nguyen, 2004: 2; DRH & SC, 2004: 46; UNFPA, 2003: 13; WHO, 2003b: 18). This missing data will bias the results. In discussion some midwives said they 'didn't know what to write' as they had not been taught how to assess blood loss. Others stated that they 'were shy'. I

interpreted this to mean there may have been a haemorrhage but they were 'shy' of admitting so. If that were so, the haemorrhage rate listed may be lower than reality. From the data supplied, the midwives' visual estimate of blood loss ranged from 40 mls to 1200 mls, with a mean blood loss of 192.5 mls; the haemorrhage rate was 11.5% as shown in Table 11.

**Table 11: Blood loss category for 1167 women with known blood loss**

	No.	%
Normal blood loss	1033	88.5
Haemorrhage	134	11.5
<b>Total</b>	<b>1167</b>	<b>100</b>

### Who had a Haemorrhage at birth in Survey One?

In this section (Tables 12 to 17) I have linked 7 of the risk factors related to development with the blood loss results for the 1167 vaginal births with known blood loss. I will discuss the survey findings for each risk factor by the corresponding table.

- *Area of residence in relation to blood loss*

**Table 12: Area of residence and blood loss at 1167 vaginal births**

Area of residence	Normal blood loss		Haemorrhage		Total
	No.	%	No.	%	
<i>Whole sample blood loss:</i>	1033	88.5	134	11.5	1167
<b>Urban</b>	<b>74</b>	<b>77.9</b>	<b>21</b>	<b>22.1</b>	<b>95</b>
<b>Rural</b>	<b>949</b>	<b>89.6</b>	<b>110</b>	<b>10.4</b>	<b>1059</b>
• <i>delta / flatland</i>	759	90.8	77	9.2	836
• <i>mid / mountainous</i>	190	85.2	33	14.7	223
<b>Out of province</b>	<b>10</b>	<b>76.9</b>	<b>3</b>	<b>23.1</b>	<b>13</b>
	<b>1033</b>		<b>134</b>		<b>1167</b>

In Table 12 the **P value = 0.0006** indicates the risk of haemorrhage was statistically significantly higher (2.13 times higher) for urban women in this sample than for rural women. This is exactly the opposite of what could be expected; the literature suggests that rural women are more at risk because of the high levels of poverty in rural areas (Nguyen, 2004: 2; DRH & SC, 2004: 46). I will discuss this in the next chapter.

- *Ethnic group in relation to blood loss*

In Table 13, the **P value = 0.00029** indicating that the risk of haemorrhage is statistically significantly lower (0.18 times lower) for *Kinh* (ethnically Vietnamese) women than for ethnic minority women. This result is what would be expected from the literature, as ethnic minority people are more disadvantaged with higher levels of poverty, and poorer access to health services (Nguyen, 2004: 2; DRH & SC, 2004: 46).

**Table 13: Ethnic group and blood loss at 1167 vaginal births**

Area of residence	Normal blood loss		Haemorrhage		Total
	No.	%	No.	%	
<i>Whole sample blood loss:</i>	1033	88.5	134	11.5	1167
<b>'Kinh' Vietnamese</b>	<b>1028</b>	88.9	<b>128</b>	11.1	<b>1156</b>
<b>Ethnic minority group</b>	<b>4</b>	40.0	<b>6</b>	60.0	<b>10</b>
<i>Unknown ethnicity</i>	<i>1</i>		<b>0</b>		<b>1</b>
	<b>1033</b>		<b>134</b>		<b>1167</b>

- *Age in relation to blood loss*

In Table 14 the **P values > 0.05** indicating there is no statistically significant difference in risk of haemorrhage between the different age groups. So although the literature indicates a higher risk for younger and older age groups, it did not prove so in this survey (Wagstaff & Claeson, 2004: 33; World Bank, 2003: 18; McMurray et al., 1998: 7).

**Table 14: Age and blood loss at 1167 vaginal births**

Age	Normal blood loss		Haemorrhage		Total
	No.	%	No.	%	
<i>Whole sample blood loss:</i>	1033	88.5	134	11.5	1167
<b>Under 20 years</b>	<b>32</b>	86.5	<b>5</b>	13.5	<b>37</b>
<b>20 – 34 years</b>	<b>893</b>	89.1	<b>109</b>	10.9	<b>1002</b>
<b>35 –40 + years</b>	<b>106</b>	84.8	<b>19</b>	14.7	<b>125</b>
<i>Unknown age</i>	<i>2</i>		<i>1</i>		<i>3</i>
	<b>1033</b>		<b>134</b>		<b>1167</b>

- *Parity in relation to blood loss*

**Table 15: Parity group and blood loss at 1167 vaginal births**

Parity on admission	Normal blood loss		Haemorrhage		Total
	No.	%	No.	%	
<i>Whole sample blood loss:</i>	1033	88.5	134	11.5	1167
<b>P.0</b> (no births before)	<b>465</b>	87.9	<b>64</b>	12.1	529
<b>P 1, 2, 3</b> (1, 2, or 3 births before)	<b>556</b>	89.2	<b>67</b>	10.8	623
<b>P 4 +</b> (more than 4 births before)	<b>12</b>	80.0	<b>3</b>	20.0	15
	<b>1033</b>		<b>134</b>		<b>1167</b>

Although women who are having their first baby, and those having a higher number of babies are both at greater risk of haemorrhage according to the literature (Wagstaff & Claeson, 2004: 33; World Bank, 2003: 18; McMurray et al., 1998: 7), as Table 15 shows, the **P value > 0.05** indicates that in this survey there is no statistically significant difference in risk of haemorrhage between the different parity groupings.

- *Antenatal care in relation to blood loss:*

According to the literature, women who have no antenatal care are at higher risk for haemorrhage, as well as higher risk for other health problems for themselves and their babies. Conversely, women who have had at least one antenatal check are at

lower risk (Wagstaff & Claeson, 2004: 33). However, as seen in Table 16, in this survey the **P values** > **0.05** indicate that there is no statistically significant difference in risk of haemorrhage between the levels of antenatal care, or absence of care.

**Table 16: Antenatal care and blood loss at 1167 vaginal births**

Antenatal (AN) visits	Normal blood loss		Haemorrhage		Total
	No.	%	No.	%	
<i>Whole sample blood loss:</i>	<i>1033</i>	<i>88.5</i>	<i>134</i>	<i>11.5</i>	<i>1167</i>
<b>NO antenatal care</b>	<b>66</b>	90.4	<b>7</b>	9.6	73
<b>SOME AN care (1 or 2)</b>	<b>319</b>	86.2	<b>51</b>	13.8	370
<b>3 or more AN checks</b>	<b>639</b>	89.7	<b>73</b>	10.3	712
Missing data	<b>9</b>		<b>3</b>		12
	<b>1033</b>		<b>134</b>		<b>1167</b>

- *Type of admission in relation to blood loss*

**Table 17: Type of admission and blood loss at 1167 vaginal births**

Type of admission	Normal blood loss		Haemorrhage		Total
	No.	%	No.	%	
<i>Whole sample blood loss:</i>	<i>1033</i>	<i>88.5</i>	<i>134</i>	<i>11.5</i>	<i>1167</i>
<b>Normal admission</b>	<b>1023</b>	88.6	<b>132</b>	11.4	<b>1155</b>
<b>Emergency admission</b>	<b>5</b>	83.3	<b>1</b>	16.7	<b>6</b>
<b>Non-emergency transfer</b>	<b>5</b>	83.3	<b>1</b>	16.7	<b>6</b>
	<b>1033</b>		<b>134</b>		<b>1167</b>

Although the literature shows that women who are admitted as emergency cases in labour are at higher risk of haemorrhage and maternal mortality (Kaye et al., 2003; ALSO, 2000) as Table 17 shows, in this survey the **P value** > **0.05** indicates there is no statistically significant difference in risk of haemorrhage between the different types of admission.

- ***Place of birth in relation to blood loss***

The figures indicate that there was a 12.5% haemorrhage rate at Department of Health facilities, compared with much reduced figures of only 2.5% haemorrhage rate at private clinics, and 6.2% at homebirths. The midwives (and I) believe this is likely to be a reflection of caution in reporting from private practitioners.

***Outcomes for 1167 women having vaginal birth***

There were no maternal deaths in this sample. Six women were listed as suffering maternal morbidity such that they were transferred to a higher level centre for treatment (4 women) or given a blood transfusion at the centre where they gave birth (2 women). All other women were recorded as being well when they were discharged from care.

**Table 18: Maternal outcomes for 1167 women with known blood loss**

<b>Condition of mother at discharge from care</b>	<b>No.</b>	<b>%</b>
Mother well; normal discharge	1161	99.5
Mother suffered maternal morbidity requiring treatment	6	0.51
• <i>Mother unwell; transferred to higher level centre for treatment</i>	4	0.34
• <i>Mother received blood transfusion</i>	2	0.17
Maternal death	0	0
<b>Total</b>	<b>1167</b>	<b>100.1</b>

***Summary of Survey 1 results***

This survey netted valid forms for 1441 births over the 30 day summary period, including a pleasing return of 207 ‘out of hospital’ births. This is estimated to be about 70% of all the births that may have occurred in the province in that time. The region of residence of the women in the survey is slightly different to the demographic spread of the population, with less urban women in the survey (only 11% compared to 16% of the province demographic) due to the major urban hospital not completing forms for all the women who birthed there. The ethnic mix

is reasonably comparable however, with 98.3% of women in the survey *Kinh* (ethnically Vietnamese) compared to 98% of the population of the province as a whole.

In the survey, women ranged in age from 13 to 47 years of age, with the majority of women in the 'normal' childbearing age range group of 20 – 34 years. Only 3.3% were 'young' that is, less than 20 years, and 11.1% were in the 'older childbearing' age group of 35 or more. When looking at Parity groupings, the higher risk groups are women having their first baby (48.2%) and women having their 5<sup>th</sup> or more baby (only 1.1% of women in this survey). The remaining 50.8% of women were in the middle group, at low risk, having their second, third or fourth baby. The other 2 risk factors reported were women who were admitted as emergency cases in labour (only 0.9%), and for those who received no antenatal care (6.3%). I also noted that while 59.3% of women overall received the minimum Vietnamese recommendation of 3 or more antenatal visits, this reduced to 46% amongst rural women, and to only 22% for ethnic minority women. This certainly reflects less use of this preventative health care amongst these groups.

When looking at the blood loss results overall and in relation to the above risk factors, the following results are for the 1167 vaginal births with a recorded blood loss. The overall result from Survey 1 indicates a haemorrhage rate of 11.5%, although there are some doubts about the accuracy of this, due to failure to report some data and an expressed 'shyness' by some research assistants at reporting the truth about blood loss at birth.

In this survey there was no statistically significant difference in rate of haemorrhage for women in the different age groups or in the different parity groupings. There was no statistically significant difference in rate of haemorrhage for women admitted as emergency cases compared to those having a routine admission in labour; or for those who had no antenatal care compared to those who had 1 or 2 antenatal checks, and those who had the recommended minimum of 3 checks or more.

There were only two risk factors for which a statistically significant difference in rate of haemorrhage was shown. From the data supplied, in this survey, surprisingly, urban women were more likely to have a haemorrhage than rural women; this is contrary to the expected result according to other published research. However, as expected from other research, ethnic minority women were more likely than ethnically Vietnamese (*Kinh*) women to have a haemorrhage.

There were no maternal deaths, and only 0.51% of women were noted to suffer maternal morbidity such that they received a blood transfusion, or needed to be transferred to a higher level centre for treatment.

All of these results will be discussed in more detail in the next chapter.

## **B. Research Question 2**

In Survey 2, I observed 100 births in 13 different Department of Health (DOH) maternity facilities. One major difference between the surveys was that in Survey 2, only one person (myself) assessed blood loss and therefore haemorrhage rate. Our estimations were rather different. In Survey 1, the multi-staff assessed haemorrhage rate for the WHO definition of a haemorrhage in a developing country (300 mls or more blood loss) was 11.5%; this included 0.9% of women having a blood loss of 500 mls or more. In Survey 2, with one estimator, the estimated haemorrhage rate in the category of 300 mls to 499 mls was 32%; the rate of haemorrhage in the category of 500 mls or more was 19%.

### ***Who had a Haemorrhage at birth in Survey Two?***

In this survey I grouped results around trying to answer two questions. In the literature, issues of poverty create high risk for mothers in childbirth (Wagstaff & Claeson, 2004; Harrison et al, 2003). Therefore, as in Survey 1, I first examined whether a higher risk of haemorrhage is indicated for rural women, or related to age,

or number of children. In all three cases, the **P value > 0.05** indicated there was no statistically significant difference in risk of haemorrhage between the different groups, as the sample number of 100 women was low.

### ***Skilled attendant at birth***

The literature shows that the best way of reducing risk for mothers in childbirth is by having skilled attendants at the birth (Wagstaff & Claeson, 2004; Kwast et al, 2003; de Bernis et al., 2003; WHO, 2001). In this section I have examined the professional techniques and practices I observed at the 100 births, to assess the overall level of skill of attendants and if there are any deficits or areas of weakness that could be improved through education and technical training. I have not looked at 'individual practice' but rather at trends which indicate widespread practice; my observations have been supplemented with input from midwives in discussions and informal talks. Below I have highlighted areas of skills deficits or weaknesses that may contribute to the risk for mothers, and which could be improved.

I do not mean to sound overly critical; there were some areas where staff showed good skill, and many areas in which staff skill was adequate; but there were a number of areas which need to be strengthened. I felt uncomfortable with the concept of 'sitting in judgment' on people I had come to care for deeply; however it was the midwives themselves who repeatedly requested me to be very honest in my assessment. As Nguyen Thi Le, midwife at a busy rural district health centre, said 'Tell me truthfully what I am doing wrong and what I could do better, my teacher. I want to be the best midwife I can be for my people.' (Nguyen, 2004). With improvements in these following areas of technical skills and education, the midwives will be better skilled and able to provide a safer service for the women in their community.

## ***Practice areas which need to be addressed***

### ***1. Overly high rate of episiotomy***

Of women having their first baby, 96.4% were given an episiotomy (cut to the vaginal tissue). This creates a high risk of haemorrhage. It is also an outdated and unnecessary routine practice; there is now a considerable body of evidence to support that it should not be done routinely (ALSO, 2000).

### ***2. Lack of Active Management of delivery of the placenta***

There is a considerable body of international evidence that Active Management of the delivery of the placenta reduces the risk of haemorrhage by up to 60% (Wagstaff & Claeson, 2004: 48; Prendiville et al., 2004; McDonald et al., 2004; Hassim, 2003: 171; El-Refaey et al., 2003: 208; ICM et al., 2003; Rogers et al., 1998; Prendiville et al., 1988a & 1988b). In Active Management, an injection of Oxytocin (the hormone that makes the uterus muscle tighten) is given to the mother prophylactically, and the placenta is then delivered using safe controlled cord traction. This prevents the most common cause of haemorrhage at birth, Atonic Uterus, where the uterus muscle does not contract tightly to control bleeding. In 3% of cases midwives did give an injection of Oxytocin, but did not follow through by delivering the placenta, even though a haemorrhage was occurring. In discussion, they and many other midwives said that they had heard of Active Management from visiting international doctors and midwives, and were interested to see if it worked. However they are forbidden to use it, because it is not in the Ministry of Health's National Standards and Guidelines. This matter will obviously need to be addressed at higher level than with individual local staff.

### ***3. Delay in delivery of the placenta***

In 33% of cases, the placenta was not delivered until 15 or more minutes, even when blood loss was high, although evidence shows that haemorrhage is related to length of third stage of labour (the stage when the placenta is delivered) (Prendiville et al., 2004; ALSO, 2000). This seems to be related to the type of management of third stage; as discussed above, currently in Viet Nam midwives are not permitted to

perform Active Management of third stage of labour, so this stage will be longer. In discussion with midwives it also became apparent that they did not recognise a range of signs of the placenta being ready to deliver. In some cases this meant that women bled unnecessarily, because staff did not recognise the signs that they could safely intervene and deliver the placenta, and so restrict blood loss. This issue could be addressed in training.

#### ***4. Unsafe technique of delivery of placenta***

In 95% of cases the midwife manually intervened to deliver the placenta, but in only 7 of those 95 cases (7.4%) did the intervention meet the two safety criteria I had defined. Of most concern was the lack of protection from accidental uterine inversion, a life-threatening complication. In 73 cases, the placenta was delivered by the uterus being vigorously pushed downwards (fundal pressure) leaving it at risk of such accidental inversion. This manoeuvre is strongly condemned in the literature as being very dangerous (Hassim, 2003: 172). In this survey it was such a common practice that the risk is obviously not understood; this definitely needs to be addressed in the future through training.

#### ***5. Unusual timing and rationale of Oxytocin use after placenta delivered***

In 47 cases the woman was given an injection of Oxytocin (the hormone that makes the uterus muscle tighten) after the placenta was delivered. I could not perceive clear reasons for giving this injection; that is, it was not always given in relation to actual blood loss. Thus some women had a haemorrhage but were not given an injection, while others were given an injection despite having normal blood loss. Also, the timing of the injection was unusual; it was given ranging from 6 to 55 minutes after the baby was born. In discussion, it emerged that the injection was often given in a misguided attempt at 'preventive' Oxytocin use. The midwives who had heard about the preventive use of Oxytocin as per Active Management described above, but which they are not permitted to do, gave an injection of Oxytocin after the placenta as this was permitted within their National Standards and Guidelines. Related to this, as it also concerns the timing and action of Oxytocin, I noted a number of cases in

which Oxytocin Infusions (intravenous drip of Oxytocin solution) were removed at a time which indicated a lack of understanding of the action of the drug, or of its duration of action. There is a need for further education regarding the use of Oxytocin, its action, timing and duration of action.

#### ***6. Unsafe storage of haemorrhage treatment drugs***

Oxytocin is the most common drug used to treat haemorrhage, the other drug which should be used in a haemorrhage emergency is Ergometrine. All centres had a supply of Oxytocin, but some of the small district centres and most of the commune health centres did not have a supply of Ergometrine on site. Both these drugs, but particularly Ergometrine, are not thermo-stable and should therefore be stored in a fridge to retain their potency (El-Refaey et al., 2003: 208; Hogerzeil et al., 1996: 25). Ergometrine is also known to lose efficacy when exposed to light. In all the centres where Ergometrine was available, it was correctly protected from light. However no centre had the drugs stored in the correct temperature range; in fact none of them had a drug fridge to be able to do so, and no staff knew that it was necessary to do so. There may therefore be no effective drugs available to treat a haemorrhage in an emergency. There is a need for education on this issue, as well as lobbying for funding and supply of suitable drug fridges.

A reasonably new alternative drug, a prostaglandin called Misoprostol, has been developed for use in this situation in tropical developing countries (Gulmezoglu et al., 2004; Villar et al., 2002; Gulmezoglu et al., 2001). While not quite as effective as Oxytocin or Ergometrine, and not as effective as the new but very expensive prostaglandin drugs available in Western countries in recent years, it has the advantage of being cheap and thermo-stable. If it is not possible to fund drug fridges for all centres, this drug should be investigated for use.

#### ***7. High numbers of exploration or evacuation of uterus after placenta***

Almost half of the women (46%) had a manual exploration of the uterus, and a further 2 had an instrumental dilatation and curettage (D&C) after the placenta was

delivered. Besides the fact that this is a painful procedure, and no one was given any pain relief, it is also a very invasive procedure and introduces a high risk of infection. Infection is the second most common cause of maternal death after haemorrhage. Compared to New Zealand practice, this number of explorations of the uterus is highly unusual. Midwives could not understand my expressed concerns; it is accepted practice in Viet Nam, and is recommended action in the Vietnamese Ministry of Health Guidelines for Reproductive Health Care Workers. Again, this issue would have to be addressed at national level, as local midwives are not permitted to vary from those guidelines.

### ***Diagnosis, monitoring, and treatment of haemorrhage at birth***

In the literature, two of the 'health system' risk factors for haemorrhage or death from haemorrhage were poor problem identification or diagnosis, and incorrect or poor treatment and monitoring. Again, these are issues of skill in attendants at birth. In determining how these factors could be objectively identified by an observer in the third stage of labour, I applied the following 4 criteria:

1. Did staff appropriately monitor the woman's condition in third stage?
2. Did staff accurately assess the level of blood loss in third stage?
3. Did staff give appropriate treatment for the level of blood loss?
4. Did staff carry out appropriate and skilful treatment of a haemorrhage, so that the researcher did not need to intervene, in the manner outlined in the ethics section of the previous chapter?

In the following section, I shall address each of these four criteria, and summarise the Survey 2 findings related to each criteria.

### ***1. Did staff appropriately monitor the woman's condition in third stage***

#### ***Monitoring of maternal condition after delivery of placenta***

After the placenta is delivered best practice care would be to monitor three factors: the mother's vital signs (Blood Pressure and Pulse) and the condition of the uterus. The Blood Pressure and Pulse provide an objective assessment of the woman's condition, and ensures that any concealed or internal haemorrhage is detected early. After the placenta is delivered, blood loss from the placental site is controlled by the uterine muscles contracting tightly and thus providing a 'living ligature' to clamp the blood vessels and thus prevent a potential haemorrhage from the placental site. The major cause of haemorrhage is an Atonic Uterus, when the uterine muscles fail to tighten or to remain tight. Minimum best practice care should therefore be to monitor the degree of tightness or contraction of those uterine muscles after the placenta is delivered. This is done by palpating or massaging (rubbing) the uterine fundus, the top of the uterus.

This criterion was fully met in only 9% of cases; full maternal monitoring after delivery of the placenta, (Blood Pressure, Pulse, and Uterus check), was only done in 9 cases. Even more worryingly, this full monitoring was only done in 5 of the 19 cases where a haemorrhage occurred, that is, in only 26% of the most dangerous cases.

#### ***Mother left unattended in third stage***

Related to monitoring of maternal condition in third stage, during the piloting of the survey tool I had added a section to the observation chart due to my concern at staff leaving the woman unattended during third stage before the placenta was delivered. During third stage of labour (the stage of delivery of the placenta) and particularly in the period before the placenta has delivered, unpredictable blood loss may occur so staff should be very vigilant.

I observed that staff only remained continually in the room during this period in 50% of cases. In fact they only remained with the woman and closely observant in 3 of those cases; in the other 47 cases, they were in the room but occupied doing other tasks, generally with their back turned to the woman. Of the 19 haemorrhage cases, 2 occurred while the staff were in close attendance, and 6 while the staff were in the room with their backs turned doing other jobs. Of concern, 11 of the haemorrhages occurred in cases where the staff had left the room. They were out of the room for anything between 1 and 19 minutes.

## ***2. Did staff accurately assess the level of blood loss in third stage***

Under-estimation of blood loss has important implications for management of haemorrhage. If midwives do not recognise the amount of blood loss, they may under-treat the haemorrhage itself, or under-treat the shock that can result from blood loss. Maternal death or morbidity may result from either case of under-treatment.

The staff member in attendance at the birth was asked for their estimation of blood loss, and this was later compared to my cumulative assessment as the observer. Overall, the staff estimate of blood loss was a mean of 42% less than the researchers. In only one quarter of cases (26%) was the staff estimation equal to or within 20% of the observer's estimation. In three quarters of the cases (74%) the staff estimate was lower than the observer's estimate by more than 20%. This under-estimation ranged from 21% to 89% less than the observer's estimate. It was noticeable that in only 2 of the 19 haemorrhage cases was staff estimate of blood loss equal to or within 20% of the observer's estimation. This criterion was therefore met in only 26% of cases.

Of course, this is a disputable criterion, as it could be argued that my estimations were too high, although the literature does note that blood loss is commonly underestimated by up to 50%. In discussions with the midwives, I came to understand some of the reasons for what I do believe were sometimes serious underestimates. Midwives work in a task orientated way; thus often one midwife

would deliver the baby, and later a second midwife would come and deliver the placenta, maybe a third would suture the perineum, and then the cleaner may be the person to come and help the woman get dressed, and notify the family to come in and carry their family member to a postnatal bed. Blood loss may occur at all of these separate times, but no one staff member noted it all, in the way that I could as a continually present observer.

A second point that arose was that midwives were surprised that I would take note of blood loss before or after the placenta was delivered; they took the definition very literally as the blood lost *when* the placenta was delivered. I explained that the blood was gone from the mother's blood supply at whichever moment it left, and so it should all be counted, as all blood lost from her system contributes to her level of anaemia, or shock. This led to a discussion about what I suspect is at the root of the problem; the midwives said that if they included the other amounts, that would make the blood loss figure too high, and if they wrote that down they would 'get into trouble.'

### ***3. Did staff give appropriate treatment for the level of blood loss***

Whether or not staff write down the correct blood loss, it is very important that they give appropriate treatment when a haemorrhage occurs. It is difficult to be completely objective in determining 'appropriate' treatment activities, I discovered, as some of what is 'appropriate' is contextual. One woman may have a haemorrhage, but remain in good condition, while another may lose the same amount of blood but go into clinical shock and be in danger. In the following Table 18 I have listed possible actions that would be appropriate when a haemorrhage occurred, enumerated the frequency of that action, and whether that was appropriate or under-treatment.

I want to emphasise that in most cases, good or reasonably good treatment was given. My comments are intended to help in making midwives even better skilled, as they themselves request. Thus my overall criticism would be that although treatment

was good or reasonably good, there was often not enough treatment, or the treatment began later than it ideally should have. Under-treatment occurred in 7 of the 10 skill areas. It was particularly in the use of drugs, intravenous fluids, and monitoring. I believe more education is needed in these areas, as preventing or treating shock is as vital as preventing or treating haemorrhage. Otherwise the woman may survive a haemorrhage but die from the resulting shock.

**Table 19: Treatment and monitoring activities in 19 cases of haemorrhage in Survey 2**

Potential treatment and monitoring activities	Action undertaken		Appropriate action or under/over treatment
	No.	%	
1. Check for Atonic Uterus: rub uterus to make it contract	18	94.7	Should be 100 %
2. Give oxytocic drug to make uterus contract, or sustain uterine contraction	14	73.7	Should be 100 %
3. Give a second or repeat oxytocic drug	10	52.6	Appropriate
4. Give Oxytocin by IV infusion to maintain sustained uterine contraction	8	42.1	Under-treatment
5. Give IV Fluids to replace blood volume, and to prevent or treat shock	8	42.1	Under-treatment
6. Monitor vital signs (Blood Pressure & Pulse) to monitor mothers condition, and assess for internal or concealed bleeding	6	31.6	Should be 100 %
7. Check placenta for completeness, in case retained placental tissue is causing the haemorrhage	15	78.9	Should be 100 %
8. Use a speculum to examine for concealed trauma which may be causing the haemorrhage	1	5.3	Appropriate
9. Empty bladder so uterus can contract tightly	2	10.6	Under-treatment
10. Manually explore uterus for possible retained placental tissue ( <i>common practice in Viet Nam</i> )	13	68.4	<i>Over-treatment</i>
or Curettage (D&C) to remove placental tissue	2	10.6	<i>Over-treatment</i>

***4. Did staff carry out appropriate and skilful treatment of a haemorrhage so that the researcher did not need to intervene***

As outlined in the ethics section, I would go 'on alert' if a haemorrhage occurred, and cease being just a researcher and intervene clinically if a haemorrhage was not being dealt with correctly or effectively. In a haemorrhage, blood loss is sometimes gradual; in other situations blood loss is rapid or dramatic, and engenders a sense of urgency. I went 'on alert' in 8 cases; 6 haemorrhage cases plus 2 other cases of rapid but normal blood loss. However I did not need to intervene, as staff carried out appropriate, if not always full, treatment activities; or responded appropriately, just later or more slowly than I thought best practice.

In 5 haemorrhage cases I 'intervened by sign or speech'. In 4 cases it was to alert staff to a rush of blood loss when the staff were not present in the room, or not paying attention to the woman's condition. The staff then carried out appropriate, if not always full, treatment activities. In the other case I suggested the midwife initiate another intervention. She was appropriately, but repeatedly, carrying out the same intervention (rubbing the uterus to make it contract each time there was further blood loss). I believed an additional intervention (an infusion of Oxytocin Infusion) was needed, to maintain the uterine contraction over a longer time.

I intervened physically in 3 cases. In 2 cases it was to demonstrate the *effective* method to massage the uterus to make it contract when the uterus was atonic; they knew what to do, but were performing the technique in an ineffective manner. In the other case, the staff member was dealing effectively with the trauma causing bleeding, but did not recognise that there was a concurrent atonic uterus. I intervened to massage the uterine fundus, asked her to remove the vaginal pack she had inserted during suturing, and taught her how to expel blood clots which had collected in the uterus.

The criterion was met in only 42% of haemorrhage cases.

## Chapter conclusion

There were 1441 valid forms collected in Survey One. Data from these forms were analysed to look at certain characteristics of the women, examining factors identified in the literature as risks for haemorrhage. The particular factors focused on were urban or rural residence, ethnic group, age group, and the number of previous births the woman had. The other two risk factors noted were antenatal care or absence of it, and whether this woman was an emergency admission. It was noticeable from the statistics that while 59% of women overall received the recommended minimum of 3 antenatal checkups, only 46% of rural women, and 22% of ethnic minority women did so.

All the factors were then examined in relation to blood loss, and whether the women had a haemorrhage or a normal blood loss. The critical finding was that ethnic minority women in the survey were at a statistically significant greater risk of haemorrhage than the ethnically Vietnamese women. This was expected from the literature due to their higher poverty levels, and reduced access to health care. Despite the disparity of antenatal care, there was no statistical significance of increased risk of haemorrhage in this survey. I was also unable to demonstrate any statistical difference in outcomes in this survey for risk groups such as emergency admissions, age group under 20, age group 35 or over, having a first baby, or having had more than 4 births before. Unexpectedly, the only other finding of statistical significance was that urban women in the survey were more than twice as likely to be recorded as having a haemorrhage than rural women. This is the opposite of what I had expected from all of the literature.

The fundamental question then hinges around the accuracy of the amount of blood loss. As noted above there is already a small bias in the blood loss results with 4.3% of births marked as 'unknown' blood loss; 80% of them rural women. In the results of recorded blood loss, 11.5% of women are categorised as having a blood loss of 300 mls or more, the World Health Organisation level of haemorrhage for a

developing country. However within that figure, only 0.9% of women were listed as having more than 500 mls blood loss. This is not a believable level; even for international countries where few women die from haemorrhage that figure may be expected to be between 5% and 18% (El-Refaey et al., 2003: 206). As explained in the chapter, several training and cultural issues appear to have masked the blood loss results.

In survey 2, as planned I observed at 100 births, and collected detailed data on the characteristics of the women and various labour and births factors. The haemorrhage rate of 500 mls or more from my estimation of blood loss in this survey was 19%. In the analysis of blood loss in relation to the same factors as above, there were no statistically significant findings, as the numbers were small. Instead, in the findings presented I have concentrated on the analysis of issues of staff practice techniques, and skill level. I identified seven areas of weakness in technical practice that could be addressed in a training programme to strengthen this area of skill.

As the single most important way of reducing maternal mortality is to have skilled attendants at birth, the other major focus of the survey was to assess the diagnosis, monitoring and treatment of haemorrhage. These are high risk areas, and skilled attendants would be expected to be well skilled in these areas. I looked closely at skills in monitoring, diagnosing and treating haemorrhage. While some things were done well, I identified areas of weakness in all of the 4 criteria I set out to assess; all these could be addressed in training programmes to improve the level of skill of attendants at birth. The most positive finding from discussions with midwives was an obvious thirst for knowledge and improved skill, which augers well for future training programmes. All of these issues will be discussed further in the next chapter.

## Chapter 7: Discussion

In this chapter, I discuss the findings of the research in relation to the two research questions, and whether those questions were answered. In this discussion the findings are discussed in the context of the literature presented in previous chapters. Some results have limitations, and these are discussed. At the end of the chapter, I make recommendations arising from the research.

The ultimate purpose of this research was to assist the Provincial Department of Health to gain information about haemorrhage at birth, as a starting point for developing specific local strategies to reduce this problem. As discussed already, maternal mortality remains a leading cause of death for women of childbearing age in Viet Nam, as in all developing countries, yet many of these deaths are preventable (AbouZahr, 2003; Lewis, 2003; Thompson, 1999). One of the Millennium Development Goals is to reduce maternal mortality rates 75% by the year 2015 (UNDG, 2003; UN, 2000). As haemorrhage at birth (PPH) is the leading cause of such deaths (Wagstaff & Claeson, 2004; AbouZahr, 2003; MOH, 2000; WHO et al., 1999), an obvious way to achieve that goal, and an important contribution to Safe Motherhood in the province, would be to reduce rates of haemorrhage.

### Research Question One

The first research question was to determine the rate of haemorrhage at birth (PPH), the outcomes for the women who had a PPH, and if the women who had a PPH had any risk factors in common, compared to women who had a normal blood loss at birth. The aim of this research question was to find out more complete data about the problem of PPH, so that the Department of Health had accurate baseline data and could develop specific plans to reduce the problem.

Having accurate data on a health problem is the necessary first step, before being able to take action to address it (AbouZahr, 2003: 1).

In this first section of the chapter I discuss the findings from each section of the question, looking first at the rate of haemorrhage, after that at the outcomes for women, and finally at each of the potential risk factors, both medical and development factors, which were examined. Finally in this section I discuss a limitation which was revealed in this section of the research, and the possible contributing factors.

Haemorrhage at birth (PPH) is often defined as blood loss of 500 mls or more (Hassim, 2003: 160). However, in this research I have used the World Health Organisation (WHO, 1999) definition of haemorrhage for developing countries, which is set lower, at 300 mls or above. This lower level is used for developing countries because anaemia is so common in these countries; anaemia has serious implications for risk of maternal mortality, as women may be affected by a lower level of blood loss (El-Refaei, 2003: 206; van den Broek, 2003: 149; Kusin et al., 2003: 63; Harrison, 2003: 112, 120; MOH & Donors, 2001: 21; ALSO, 2000: J2; WHO, 1996; van den Broek, 1998). This lower level for haemorrhage applies to Viet Nam; as outlined in the section on poverty in chapter 3, the Ministry of Health estimates that 63% of women in Viet Nam are anaemic (MOH & Donors, 2001: 21). This high level of anaemia is due to reduced intake of iron-rich protein foods, with only 62% of Vietnamese eating the daily minimum recommended protein intake in 2000 (ASEAN, 2005: 337). Low protein intake is partly due to poverty, being unable to afford protein foods which are more expensive; but is also related to the status of women. As discussed in chapter 3, women are expected to be self-sacrificing and give the best food to their in-laws, husband and children. Low protein intake for pregnant women also has a cultural component; pregnant women have traditionally been taught that if they eat too

much protein-rich food their baby will be too big and they will have difficulty giving birth normally. They therefore restrict these foods (Do & Morrow, 1998: 3).

Using the WHO definition of haemorrhage at birth (PPH) of 300 mls or more, from the information supplied in this survey I was able to calculate a rate of haemorrhage at vaginal birth (PPH) of 11.5% as outlined in Table 11.

There were, thankfully, no maternal deaths among the women in the survey. Globally, 600,000 women are estimated to die in childbirth every year, with 99% of them in developing countries (Levine et al., 2004: 47; Thompson, 1999: 146). Maternal Mortality Ratio is calculated at how many women die per 100,000 live births. In developed countries today, Maternal Mortality Ratios are low, usually between 5 and 20:100,000 (WHO, 2004). Within the developing world there are immense differences in ratios of maternal mortality; in Afghanistan and parts of Africa Maternal Mortality Ratios are estimated to reach as high as 1,000:100,000 (WHO, 2004). In Viet Nam the Maternal Mortality Ratio is estimated to be 165:100,000 live births (DRH & SC, 2004: 50; UNFPA, 2003: 14; MOH & Donors, 2001: 21). Although each maternal death is a tragedy, it is still a relatively unusual event in Viet Nam. So although statistically it is possible that amongst 1441 births there may have been one tragic event, it is not unexpected that there is none in this survey.

Maternal morbidity (ill health or disability as a result of pregnancy or childbirth) is much more common than maternal mortality (death as a result of pregnancy or childbirth). For example, studies from other countries suggest that six to eight times as many women suffer from maternal morbidity as a result of haemorrhage at birth (PPH) as actually die from PPH (Kaye et al., 2003: 144; Cochet et al., 2003: 700). With an MMR of 165:100,000 live births, it could therefore be expected that between 11 and 16 women may suffer from maternal morbidity in

this survey. In Survey 1, as shown in Table 18, of the 134 women who were recorded as having a haemorrhage, four women were unwell and required emergency transfer to a higher level health centre for treatment. All other women were recorded as being well at discharge from care.

Of the four women who were transferred to a higher level health centre for treatment, all four were suffering from medical shock as a result of a haemorrhage. It was not noted if any other women received treatment within their maternity ward, without being transferred. Only two women (extra to the four above) received a blood transfusion after haemorrhage, as indicated in Table 18. With only six women of the 1167 vaginal birth women noted as receiving treatment for maternal morbidity; this rate of 0.51% is therefore lower than the range expected based on published research from other countries (Kaye et al., 2003: 144; Cochet et al., 2003: 700).

There may be several factors which affect this reported low rate of maternal morbidity requiring treatment. There may have been under-treatment. Results in Survey 2 show that there was often under-treatment of haemorrhage as indicated in Table 19; it may also have been so in Survey 1, as the two surveys were run concurrently. It is possible that there were more women who received treatment but without being transferred, as this was not recorded on the form. Several times midwives did comment that had blood been available, other women would have had a blood transfusion. This lack of blood transfusion facilities is a hazard of poorly developed and funded health systems in developing countries, as blood transfusion can be a life saving measure. As Fleming states, 'blood transfusion facilities are a prerequisite for Safe Motherhood (Fleming, 2003: 381). There is a blood bank only at the largest hospital in Binh Dinh province; at all other centres, blood is given only in an extreme emergency, as it can only be given untested and uncross-matched, and only if someone can be found to donate blood.

Various health and development factors are identified in the literature as risks for haemorrhage, maternal mortality and maternal morbidity. A number of these factors were able to be checked for in this survey; they were then examined in relation to blood loss, and whether the women had a haemorrhage or a normal blood loss. The critical finding in this survey was that ethnic minority women in the survey were at a statistically significant greater risk of haemorrhage than the ethnically Vietnamese women (Table 13). This is to be expected from the literature, due to their high rates of poverty and difficulty of access to health services.

As discussed in chapter 3 and 4, ethnic minority people in Viet Nam live in the most isolated and mountainous areas, so lack of transport and poor road access makes access to health care more difficult. They are the most disadvantaged group in Viet Nam and have the highest rate of poverty, as they rely on subsistence agriculture (Castella & Quang, 2002: 1). In relation to the majority *Kinh* or ethnically Vietnamese population, 75.2% of ethnic minority people are classified as below the poverty line compared to 31.7% of the *Kinh* population (Nguyen, 2004: 2; UNDP, 2004: 15). As shown in Table 6, ethnic minority people make up only 2% of the population in Binh Dinh province; in this survey they make up only 1.5% of the women in this sample, reflecting the fact that there is a high number of ethnic minority women who birth at home, usually unattended by any health worker. Despite the low numbers of ethnic minority women in this sample, as shown in Table 13 ethnic minority women had a 60% haemorrhage rate compared to 11.1% for *Kinh* women. This is a statistically significant higher rate of haemorrhage.

An interesting related fact which emerged in this survey was ethnic minority women's low use of formal health care services in pregnancy. As discussed in relation to Table 9 in chapter 6, while overall 59% of women in the survey

received the recommended minimum level of antenatal care of 3 antenatal checkups, only 22% of ethnic minority women did so. This low rate of uptake of services may reflect issues of affordability and transport, but may also reflect a lack of cultural safety in such services. As discussed in chapter 4, Nguyen and other authors assert that ethnic minority women are reluctant to use health care services because of perceived negative attitudes to them by staff, and because staff do not speak their language (Nguyen, 2004: 2; DRH & SC, 2004: 46; WHO, 2003b: 10, 18; Poverty Task Force, 2002: 12; WHO, 1995: 29). From my experiences in the field I absolutely agree with their claims. I have witnessed an ethnic minority woman patient being laughed at; another being told by staff that she was stupid, simply because she did not speak Vietnamese well; and a senior health professional informed me that all ethnic minority people were 'subnormal.'

Poverty and low status of women in most developing countries means that too often women have less education, marry early and therefore have children while the mother is still young herself, and have many children (Wagstaff & Claeson, 2004: 33; World Bank, 2003: 18; Tran & Le, 2000: 94; Murthy et al., 1999: 22-30; McMurray et al., 1998: 7; Anderson, 1989: 62-63; Jeffery & Basu, 1996). In this survey I therefore examined the rate of haemorrhage related to age and parity (number of children).

Women in this survey ranged in age from 13 to 47 years of age, and as shown in Table 7, there were 3.3% of women in the high risk age group of under-20 year olds. Women aged 35 years and over, the other high risk group, made up 11.1% of the sample group. Most women, 85.4%, were in the 'normal' childbearing age group of 20 to 34 years of age. Despite the high risk related to age shown in the literature, in this survey, I was unable to demonstrate any statistically significant greater risk of haemorrhage between any of the different age groups.

When examining parity, as noted in Table 8, in this survey sample almost half of women (48.2%) were having their first baby, which places them at higher risk of haemorrhage. Slightly more than half the women were in the 'normal' group having their second, third or fourth baby now. The number of women in the other high-risk parity group, women who had given birth more than four times already, was low at only 1.1%. This low rate is unusual compared to many developing countries, and may reflect Viet Nam's high literacy levels amongst women; more probably it is a result of most couples obeying Viet Nam's long standing state control of fertility (Tran & Le, 2000: 94; Murthy et al., 1999: 22-30). Despite the high risks related to parity shown in the literature, in this survey, I was unable to demonstrate any statistically significant greater risk of haemorrhage between any of the different parity groups.

Two other risk factors which I looked at in this survey are related to lack of access to preventative health services, and delay in seeking health care in childbirth. These would be shown by limited or absent antenatal care in pregnancy, and the woman coming to a health centre as an emergency admission in labour. Women who are emergency admissions have not booked in to go to the health centre for childbirth and therefore have usually not had any antenatal care. When women have no antenatal care, both they and their baby are at high risk of complications (Wagstaff & Claeson, 2004: 49; ALSO, 2000: J2). Having limited or no antenatal care means that the woman does not receive preventative care, so problems such as anaemia are not detected or treated. This then makes the woman at high risk if she has a haemorrhage (MOH, 2003: 25; van den Broek, 2003; Harrison, 2003: 112; van den Broek, 1998).

Data concerning antenatal care in pregnancy are shown in Table 9. In this sample, there were 6.3% of women who had no antenatal care at all, and a further 32.4% who had a limited amount of antenatal care (1 or 2 visits). Only 59.3% of women

had Viet Nam's current target of a minimum of 3 antenatal check ups in pregnancy. Table 10 shows that only 0.9% of women were emergency admissions in labour. Despite the high risks shown in the literature related to lack of antenatal care, or delay in seeking health care as demonstrated by presenting as an emergency admission in labour, in this survey I was unable to demonstrate any statistically significant greater risk of haemorrhage for either of these risk factors.

Unexpectedly, the only other finding of statistical significance was that urban women in the survey were more than twice as likely to be recorded as having a haemorrhage than rural women. Table 12 shows that the 95 urban women with recorded blood loss had a 22% haemorrhage rate compared to a 10.4% haemorrhage rate for the 1059 rural women. This result is the opposite of what I had expected; all of the literature suggests that rural women would be more at risk because of the high levels of poverty in rural areas in Viet Nam (UNDP, 2004: 15; Nguyen, 2004: 2; DRH & SC, 2004: 46).

This may be a result that is simply against the literature, or it may reflect a limitation of the research. I strongly suspect that blood loss was not accurately estimated at births, and this may have influenced this result. As discussed in chapter 6, there is already a bias in the blood loss results as 4.3% of the forms did not have an estimated blood loss written down, they were simply marked as 'unknown.' Of those cases, 80% were from births at home or at commune health centres in mountainous regions, where the most disadvantaged rural women live.

For the 1167 other births where a blood loss estimate was given, as I have already discussed in chapter 6, I believe the level of blood loss estimates of 500 mls or more are unrealistically low. Within the stated result of 11.5% haemorrhage, there are only 0.9% of women who had a blood loss of 500 mls or more. This is not a realistic figure; a developed country, which has few maternal deaths, is likely to have a rate between 5% and 18% for haemorrhage of 500 mls or more (Herbert,

2006; El-Refaey et al., 2003: 206; Thompson, 2000: 3). In discussions, a number of midwives, especially rural midwives, said that either they had not been trained how to estimate blood loss, or that they were 'shy' and reluctant to record a blood loss result that was too high, as that may get the staff member 'into trouble.'

This touches on both cultural and ethical issues. Although in discussions with health officials I had emphasised the importance of finding out information without attaching any blame or shame, and this had been agreed at the highest official levels, the midwives were not certain enough to believe those assurances. I have some sympathy with them; I note in the 2004 Annual Report of the Department of Health that, as well as selected health workers and teams being rewarded financially and with labour medals or certificates for good work and meeting targets, a number were punished by being 'blamed', 'warned,' fined, or by deduction of salary, for violating regulations or not meeting targets (DOH, 2005: 14). It would have been an ethically disastrous research outcome to have had correct data, but midwives punished for providing it. This is the reason why, as discussed in the ethics section at the end of chapter 5, I did not in fact comment on this limitation or the specific research findings in my report to the Department of Health.

However, although the haemorrhage *rate* may not be correct, I believe that it may still be reasonable to draw some conclusions based on the *proportion* of women in various risk factor groups who had a haemorrhage.

The second research question, discussed below, also looked at aspects of third stage of labour and haemorrhage at birth, but with a different focus.

## Research Question Two

The second research question was: what were staff practices in the management of third stage of labour (the time of delivery of the placenta), and did the staff demonstrate skilled care in their management of the third stage of labour. As discussed in previous chapters, the literature is very clear that the single most important factor in reducing maternal mortality is to have a skilled attendant present at births. However around the world, staff are not always trained to the same standard; the level of skill required means that they must be proficient at preventing, diagnosing, and treating emergencies, such as a haemorrhage. They must also have the necessary medications and equipment (Wagstaff & Claeson, 2004: 33; de Bernis et al., 2003: 39; WHO, 2001: 1).

This aspect, level of skill, could not be answered in a questionnaire as in Survey 1, but it was suitable to be addressed by observation. Hence in Survey 2, I observed staff practice at 100 births across the province and noted details of the practice, techniques, medications used and other aspects of management during third stage of labour, at the delivery of the placenta. From analysing the data thus obtained, I attempted to objectively critique the level of skill of the staff. Ethically, I was very careful not to comment on individual staff practice, but rather looked at trends across the different centres and regions of the province.

I made detailed observation and analysis of staff management of third stage of labour, delivery of the placenta. The first area of care I looked at was during normal third stage of labour in delivery of the placenta; the second area of care was when a haemorrhage did occur. I do not want to appear negative, by focusing in this discussion on the areas that need improvement, but I am conscious that that is exactly what the midwives asked of me: they wanted to know what they could do better, and how they could provide safer care.

In looking at care during normal third stage, I noted that while some actions were done well, there were some deficiencies and weak areas. As noted in point 4 in chapter 6, in only 5% of cases where the midwife delivered the placenta did she do so safely, protecting the uterus from accidental harm. In the majority of cases (95%) staff used an old-fashioned technique, fundal pressure, in which the uterus is vigorously pushed downwards to expel the placenta. This exposes the women to the risk of accidental inversion of the uterus, and to shock. Although this manoeuvre was done in the distant past in developed countries, it is now known to be very dangerous (Hassim, 2003: 172). In this survey it was such a common practice that the risk is obviously not understood.

Staff gave Oxytocin, the drug that contracts the uterus to control haemorrhage, in 47 cases. However, as discussed in point 5 in chapter 6, the timing was often unusual and was not always in relation to haemorrhage. From discussing this with midwives, as well as from my observations, it was clear that while some knew the onset and duration of action of Oxytocin, many other midwives did not.

When observing the storage of the haemorrhage treatment drugs, Oxytocin and Ergometrine, I noticed that midwives demonstrated their understanding that Ergometrine needs to be protected from light to remain effective, as they cover the container. However, none knew that both drugs also need to be protected from extremes of temperature to remain effective (El-Refaey et al., 2003: 208; Hogerzeil et al., 1996: 25).

Also related to those drugs, I noted that many of the small rural and particularly the remote health centres do not always have both these haemorrhage treatment drugs that they need. This is a reflection of the lack of attention and funding to rural health, and poor logistics and supply of essential drugs (Trong, 2005: 12; Segall et al., 2002: 497; MOH & Donors, 2001: 69; Bloom, 1997: 16; Tipping et al., 1994: 1). Local level political support would be needed to achieve the correct

supply of essential drugs, and also for funding for medication fridges for correct storage of these essential drugs.

I identified two areas of practice as problems from my outsider's perspective; however the midwives are actually following what is laid down in the Ministry of Health National Standards and Guidelines for Reproductive Health Care Workers, which they are obliged to follow (MOH, 2002). While I believe that these two practices areas need to change to be in line with international research evidence of best practice, this requires a change of practice policy from central Ministry of Health level. These will therefore need to be addressed at that national level; as such change has to be approved by the Ministry. These two areas are discussed in points 1 and 2 in chapter 6. As noted in point 1, 96.4% of first time mothers in Survey 2 were given an episiotomy (a cut to enlarge the vaginal opening at birth). This is an overly high rate of episiotomy, as this technique places women at high risk of haemorrhage, and is not needed routinely (ALSO, 2000).

As noted in point 2 in chapter 6, no staff used Active Management of the third stage of labour, even when blood loss was high. This latter issue is a particularly important one. Active Management of third stage of labour involves giving the drug Oxytocin prophylactically, before the placenta is delivered. This prevents haemorrhage by preventing Atonic Uterus, the major cause of haemorrhage. It has been proved to reduce the rate of haemorrhage by up to 60%, and has been in use in Western medical systems for over 30 years. Active Management has been described as the single most important prophylaxis for women in birth (Wagstaff & Claeson, 2004: 51; Prendiville et al., 2003: 1; El-Refaey et al., 2003: 205; Hassim, 2003: 170; Festin et al., 2003: 286; Prendiville et al., 1988a & b). It was markedly obvious in observation in Survey 2 that Oxytocin was never given prophylactically in this way. In discussion with the midwives and doctors it

became clear that this major area of international research had bypassed their teachers. Many of the staff gave an injection of Oxytocin, but it was given after the placenta, or to treat a haemorrhage. The simple act of changing the timing of this injection to be a preventative measure would be an effective way of reducing maternal morbidity and mortality (Wagstaff & Claeson, 2004: 48 – 52).

One of the most important tasks of skilled attendants is to be skilled at prevention, diagnosis, treatment and monitoring of emergencies such as haemorrhage (Levine et al., 2004: 48; World Bank, 2003: 22; de Bernis et al., 2003: 39-40; Kwast et al., 2003: 52; Peters, 2000: 3). In Survey 2 I assessed staff management of haemorrhage using four criteria.

The first criterion was appropriate monitoring of the woman's condition by checking the blood pressure, pulse and uterine contraction after the placenta was delivered. This criterion was fully met in 9% of cases. I noted with particular concern that in only 26% of the haemorrhage cases was this monitoring fully done. Hassim notes that it is vital to monitor accurately, so as to correctly diagnose and treat haemorrhage, and to provide appropriate resuscitative measures to prevent medical shock when women haemorrhage (Hassim, 2003: 160).

The second criterion was accurate assessment of the level of blood loss in third stage. As discussed earlier in this chapter in relation to survey 1, there are some cultural reasons why this may not be done, as well as various practice issues which were discussed in chapter 6. Only 26% of cases met this criterion.

Whether or not staff estimate the level of blood loss accurately, it is vital that they give appropriate treatment for the level of blood loss. The third criterion therefore was appropriate treatment provided if haemorrhage occurred. As outlined in Table 18, of 10 possible treatment and monitoring activities in cases

of haemorrhage, 2 were performed an appropriate number of times, 2 were done more times than necessary, and 7 were not done frequently enough. This reflects an overall level of under-monitoring and under-treatment of haemorrhage, particularly under-use of drugs to treat haemorrhage and under-use of intravenous fluids when there was a haemorrhage. Skilled and prompt diagnosis and treatment of a haemorrhage, and monitoring of the woman's condition, is vital to increasing the chances of survival in an emergency. Intravenous fluids are vital to replace circulating blood volume; if treatment of haemorrhage is delayed or limited, this can result in severe physiological reactions. Severe anaemia as a result of blood loss can lead to medical shock, resulting in heart failure, kidney failure and death. Hence the axiom that a woman may survive the haemorrhage, but die from the resulting medical shock if treatment is not adequate (Hassim, 2003: 175; de Bernis et al., 2003: 46; ALSO, 2000: J2).

The final criterion was appropriate and skilful treatment of a haemorrhage so that I had no need to intervene, as I had outlined in the ethics section in chapter 5 that I would do if care was not adequate and safe. This criterion was met in 42% of cases.

As an overall assessment of the 100 births, and 19 cases of haemorrhage in Survey 2, although most care in management of haemorrhage was reasonably good, treatment was often commenced later than it ideally should be; I also noted that there was often under-monitoring and under-treatment. I therefore identified several areas to be addressed in training and education programmes. Several authors identify health training deficits in developing countries as a factor in maternal mortality, and of the need to invest in good quality training if maternal mortality is to be reduced (Kwast et al., 2003: 49; de Bernis et al., 2003: 47, 55; Peralta & Hunt, 2003: 1, 3; Peters, 2000: 3; Thompson, 1999: 149). Initial training needs to be of a high standard, and consistent; currently in Viet Nam, there is no

standard curriculum, and training standards for midwives vary between provinces (MOH & Donors, 2001: 48). There is also a problem with little or no ongoing education after their initial training. For health systems to keep 'up to date' with advances in research, and to know of evidence based practice, they must keep updated with new knowledge, through journals or via the internet (Festin et al., 2003).

This survey allowed me to identify areas of deficit or weakness in skills that can be addressed through technical skills training and education programmes at local level. The overall aim of the research is therefore met, as these strategies will assist in reducing haemorrhage, and so in reducing maternal mortality. I am confident that such education and training programmes will be successful, as the midwives themselves express such a thirst for learning and improving their skills; they want to be the best midwives they can be to help their people. With improvements in these areas of technical skills and education outlined above, the midwives will be better skilled and able to provide a safer service for the women in their community.

## **Recommendations**

The first recommendation I would make is for the Department of Health to invest in a training programme to address the specific technical skills and knowledge deficits identified in this research. This programme should include but not be limited to, the importance of full monitoring of women in third stage of labour; resuscitative techniques of intravenous fluids to prevent shock in the treatment of haemorrhage; safe technique of controlled cord traction to be used in delivery of the placenta; and education about the use, reasons for use, and the safe storage of the drugs commonly used to prevent or treat haemorrhage. Through increased knowledge of the action, onset and duration of action of

Oxytocin, the major drug used during third stage, staff will be able to use it in a more efficacious way.

Secondly, and in support of the above, I would recommend that the Department of Health assist by improving the logistics of supply of essential drugs so that all centres have them available at all times; and that a cool storage facility is available for correct storage of these drugs so that they remain effective.

My third recommendation is that the Department of Health approaches the Ministry of Health requesting permission to use Active Management of the third stage of labour as a preventative measure which is shown by international research to be an effective way of reducing maternal morbidity and mortality.

### **Chapter conclusion**

Maternal Mortality is the leading cause of death for women of childbearing age in developing countries around the world. As the primary direct cause of maternal mortality is haemorrhage at birth (PPH), in order to reduce maternal mortality, PPH must be reduced. The underlying aim of this research was to gain a more complete picture of the problem of PPH in the province of Binh Dinh, so that the Department of Health could develop specific local plans with high impact on reducing PPH.

There were two research questions. The first question was: what was the rate of PPH, the outcomes for women who had a PPH, and were there any risk factors that made women at higher risk of PPH. The rate of PPH from the information provided was 11.5%; unfortunately there is some doubt about the accuracy of this rate due to a variety of technical and socio-cultural factors. Outcomes for the women in the survey were generally good; there were no maternal deaths, 0.51% of women suffered maternal morbidity as a result of haemorrhage which required treatment, and all other women were well and discharged from care normally.

The rate of cases of maternal morbidity is lower than expected from other published research. This may reflect several possibilities; women may have been under-treated, or treated without requiring transfer to a higher level centre and so were missed in this data. It was reported that blood transfusion was not always available when it was recommended; this is often so in developing countries due to poorly developed and funded infrastructure in rural health centres.

Poverty and low status of women in many countries means that women often marry and have children early, and have many children. When women cannot afford health care or poor roads and transport limits their access, this is often reflected in lack of care such as antenatal care, and late or emergency admissions in labour. In other published research these types of factors which are both medical and development factors, place women at high risk of haemorrhage. However, when relating haemorrhage to such risk factors in this survey I was not able to show any difference in outcome for several of those expected risk factors. In this survey there was no statistically significant difference in rates of haemorrhage for women of different age groups, or for women in different parity (number of babies previously) groups. There was no statistically significant difference in rates of haemorrhage for women who had no antenatal care versus those who had the recommended minimum care; or for those who had emergency admission in labour versus those who had a normal admission.

One risk factor that did prove significant in this research was that ethnic minority women were at higher risk of haemorrhage. As ethnic minority people in Viet Nam have extremely high rates of poverty, and live in the most isolated and mountainous areas, this result was as anticipated. Another interesting fact emerged in this survey that reflects ethnic minority women's low use of formal health care services. While overall, 59% of women in the survey received the recommended 3 antenatal checkups, only 22% of ethnic minority women did so.

This low rate of uptake of services may reflect issues of affordability and transport, but may also reflect a lack of cultural safety in such services (Nguyen, 2004: 2; DRH & SC, 2004: 46; WHO, 2003b: 10, 18; Poverty Task Force, 2002: 12; WHO, 1995: 29).

Having a skilled attendant present at birth has been shown as the single most important factor to reduce maternal mortality. So the second research question was: what were staff management practices in third stage of labour, and did staff demonstrate good skills. While staff did some practices well, I was able to identify several areas of practice and specific technical skills that needed to be strengthened. The most important of these are related to safe technique in the delivery of the placenta, and better understanding of the emergency drugs which prevent or treat haemorrhage, and of safe storage for those drugs. I identified that staff did not use Active Management of third stage of labour. This technique of preventing haemorrhage has been proven and used in Western countries for many years; it should also be taught in Viet Nam.

One of the most important areas of skill for attendants is in diagnosing, treating, and monitoring when women have a haemorrhage. In this survey staff generally gave good care, but I identified several areas of under-monitoring, and under-treatment particularly in use of drugs and intravenous fluids; this reduced level of care can have serious consequences for women. All of these areas can be addressed by technical training and education programmes.

Investing in quality initial training, and ongoing training to keep staff skilled and up to date with research evidence, is one of the most practical and important ways the Ministry and Department of Health can reduce maternal mortality. Such education and training is likely to be well received and successful, as staff express a thirst for learning, and a desire to be the best skilled midwives they can be for their people.

## Chapter 8: Conclusions

In this final chapter I firstly review the major themes of poverty, health and development, and Safe Motherhood that have been discussed in the literature framework of this thesis, and which are interwoven in the research. These themes are common to most developing countries, but here I look at them particularly in relation to Viet Nam today. Safe Motherhood is now taken for granted in countries like New Zealand, but it is a major issue in developing countries including Viet Nam. It is important for the woman's family that she is well and healthy after childbirth, but it is also important for her country, so that she is able to contribute to its development. The research in this thesis relates to one aspect of Safe Motherhood, haemorrhage at birth, which is the most common cause of maternal mortality. In the second section of this chapter I re-examine the two research questions relating to haemorrhage at birth in Binh Dinh province, and the important findings from the research. In the final section are recommendations from the research which will assist the Department of Health in their quest to reduce haemorrhage and thus maternal mortality, and conclusions on reaching the ultimate aim of Safe Motherhood for all.

### **Poverty, health and development**

Many of the poorest countries of the world are traditional agricultural societies, and their citizens often struggle to overcome poverty and poor health outcomes. Development with increased industrialisation and productivity is usually seen as the way to overcome this poverty and for the country to develop. Yet although modernisation development brings increased economic growth, as it has in Viet Nam in the past two decades, it has created inequality; it is the urban and well educated who benefit most, and men more than women. In Viet Nam, the majority of the population (76%) still live in rural areas and do agricultural work,

and 90% of poverty is amongst rural dwellers (UNDP, 2004: 15, 20). The most disadvantaged are those who live in the remote and mountainous regions; this is because these areas have poor agricultural land suitable mainly for subsistence agriculture, have fewer infrastructures and less access to services. Rural dwellers and women remain especially vulnerable to poverty because of reduced earning options in the rural areas, and discrimination against women. Socialism promised equality for men and women, but in reality in Viet Nam today traditional Confucian patriarchal attitudes continue, and women remain subordinate. This means that although women work outside the home in employment, whether in services, factories, trading, or on farms, they still continue to carry a heavy burden of household tasks. Women are vital to all aspects of the development of their country, but they cannot fully participate in that development when they have no free time, and lack the power to improve their own lives because of discrimination and inequality.

Poverty is the root cause of ill health. Poverty means that people are more prone to malnutrition and anaemia; in Viet Nam, 63% of pregnant women are anaemic, and this has serious implications for their risk of maternal mortality (MOH & Donors, 2001: 21). When people are living in poverty, they cannot make the best health care decisions, and may not be able to afford care, or delay seeking care. At times they must go into debt, or sell precious assets to be able to afford health care (Segall et al., 2002: 497; Tipping 2000a: 7-8). In Viet Nam's collectivised socialist days, the health sector may have been minimally resourced, but health care was free and well structured, making it available close to where people lived and worked. Since the *Doi Moi* reforms over the last 20 years, Viet Nam has been changing to a socialist market economy, and now seems dominated by neo-liberal modernist thinking. As well as liberalised pharmaceutical sales and private medical practice permitted, there are now fees for health care. Those who can

afford it can access a wider range of health care; those who cannot afford it are endangered (Segall et al., 2002: 497; MOH & Donors, 2001: 1).

In Viet Nam health insurance was introduced a little more than a decade ago; it now covers the cost of hospital care for 12% of state employed workers, who are usually urban dwellers (MOH & Donors, 2001: 2). After concerns at the effect of poverty on the health of the poorest citizens, a poverty alleviation programme has been introduced and will be phased in by 2010 to provide free in-patient hospital care for the poorest 14% of the population (Trong, 2005: 12). This still leaves a lot of people living at a vulnerable point just above that cut off level. Any misfortune, accident, episode of ill health, can quickly cause them to drop back below the poverty line. Rural dwellers, who have the highest levels of poverty, are disadvantaged as poor people must spend a higher proportion of their income on health care compared to those with more income.

At the same time, the rural health system in Viet Nam has been run down, with the majority of government funding going to urban hospitals even though the majority of the population live in rural areas. There are often problems with lack of essential supplies, drugs and equipment at rural levels of the system, particularly in remote areas. While rural people need improved basic health care, there is a trend at the other end of the scale for the urban elite level of the population to see sophisticated modern medical care as desirable even when unnecessary. This leads to over-medicalisation, as is seen in the rising rates of elective caesarean sections for those who can afford them.

While improved health is one important aspect of a country's development; education and improved literacy is another. Viet Nam has a remarkable record in literacy and education compared to many other developing countries, with literacy rates of more than 90% for both men and women (ASEAN, 2006: 9). However there is a higher rate of non-enrolment and non-completion of school

levels for girls, particularly rural and ethnic minority girls. Well educated women have more opportunities in the modernising Viet Nam of today, and contribute to the growing urban middle class. Education and literacy of girls is a key determinant of future fertility rate, and health of those children. Women with less education tend to become trapped in a poverty cycle where they have more children, and those children are more likely to suffer ill-health or death.

When looking at fertility rates in Viet Nam, it is obvious that Viet Nam has lower fertility rates than some developing countries. Although there is a high socio-cultural expectation in Viet Nam for women to marry and have children, fertility rates have reduced remarkably over recent decades. This is in response to the state policy controlling fertility, with highly structured family planning services, and high rates of abortion. However, fertility rates are highest in rural areas, particularly in mountainous regions and for ethnic minority groups. These disadvantaged groups also have the highest infant and maternal mortality rates in the country.

Although numbers of ethnic minority women in Binh Dinh province are small, they face major health issues so it is important to look at their particular problems. In this province, as in Viet Nam generally, ethnic minority peoples live in the remote and isolated mountainous regions, and rely on subsistence agriculture. This contributes to making them the most disadvantaged people in the country; where 31.7% of ethnically Vietnamese people are classed as below the poverty line, 75.2% of ethnic minority people are classed as such (Nguyen, 2004: 2; UNDP, 2004: 15). Ethnic minority girls are less likely to enrol or complete education, and more likely to marry at a young age and have more children than their ethnically Vietnamese counterparts. They are also less likely to access health care, less likely to birth with a skilled attendant, and more likely to die in childbirth (Nguyen, 2004: 2; UNDP, 2004: 15; DRH & SC, 2004: 46;

WHO, 2003: 10). One of the reasons they report for not using health care services is that they perceive they are treated negatively by staff; staff also do not speak their language (WHO, 2003b: 18).

## **Safe Motherhood**

Health is vital to development; people must be healthy to be able to contribute as workers, in government, social and community affairs. Women's health has direct consequences on families and children's health, education and future production. Within women's health, therefore, Safe Motherhood is a clear priority. When a mother dies or is ill as a result of pregnancy or childbirth, it has serious consequences on that child, the rest of the family, and on her community and its development. Maternal and infant mortality rates are important indicators of the development of a country, as they are the first to be affected by detrimental changes in health and socio-economic status (ASEAN, 2006: 14; WHO, 2003: 11; MOH & Donors, 2001: 22-23).

Maternal mortality remains a leading cause of death for women of childbearing age in Viet Nam, as in all developing countries, yet many of these deaths are preventable (AbouZahr, 2003; Lewis, 2003; Thompson, 1999). The major direct causes of maternal mortality are haemorrhage at birth, infection, eclampsia (toxaemia or high blood pressure), unsafe abortion, and obstructed labour left untreated so that the uterus ruptures (UNDG, 2003: 36; AbouZahr, 2003: 2; Peters, 2000: 3; Murray, 1989: 75). Although the direct and indirect causes of maternal mortality are well known, developing countries continue to have high rates of mothers who die in childbirth. Although poverty is a major underlying cause of maternal mortality, increased income alone will not address health problems. Women need to be able to afford health care, but that health care needs to be of high quality; the state needs to invest in quality health systems and training, so that care is effective. Good quality maternity services must have the

necessary supplies, equipment, and medications, but most importantly skilled staff. The single most important determinant of Safe Motherhood is to have a skilled attendant at every birth, who has the necessary training, equipment and medications to be able to prevent, detect, treat and monitor emergencies such as haemorrhage at birth (Levine et al., 2004: 48; World Bank, 2003: 22; de Bernis et al., 2003: 39-40; Kwast et al., 2003: 52; Peters, 2000: 3).

I worked in Binh Dinh Province for four years as a midwife advisor for the Provincial Department of Health. During my work in the field I suspected that haemorrhage (PPH) was the leading cause of death for mothers in childbirth in the province. There were many times when I went to a health centre and heard that a mother had died from PPH recently; as one midwife said 'sometimes mothers just bleed too much' (Huynh, 2004). The literature from Viet Nam and internationally confirms that PPH is the direct cause of at least a third of all deaths in childbirth (AbouZahr, 2003; Nguyen, 2001; MOH, 2000; WHO et al., 1999). As PPH is the leading cause of maternal deaths in the province, reducing PPH will help to reduce deaths of women in childbirth in the province.

The Binh Dinh Provincial Department of Health asked me to help them address the problem of haemorrhage at birth (PPH). That request led to this research, which was carried out with the Department; it was 'real world' research, to help address an actual local problem. An important factor in the success of the research was that local officials and staff participated and were integrally involved in this research, to address this key health issue of their community. Not only was their help and support vital to the planning and success of the research, it meant that the research findings were more likely to be used.

## Research Question One

There were two research questions, to look at the problem of haemorrhage at birth (PPH) from slightly different angles.

To provide more complete information about haemorrhage at births in the province to help the Department of Health to develop strategies to address the problem, the first research question was:

- **How many women in the province have a haemorrhage at birth?**
  - **What are the outcomes for those women?**
  - **Which women have a haemorrhage at birth (PPH) and what risk factors, if any, do they have in common?**

To answer this question, midwives filled in an anonymous retrospective questionnaire form for 1441 births that occurred in a 30 day survey period. As some births occur outside of health facilities or unattended by a midwife, it was pleasing to achieve approximately 70% province-wide coverage of all births in this survey.

In Viet Nam 63% of women in Viet Nam are anaemic (MOH & Donors, 2001: 21) so the WHO definition of haemorrhage for developing countries (blood loss of 300 mls or more (WHO, 1999) was used in this survey. From the information supplied in this survey I was able to calculate a rate of haemorrhage at vaginal birth (PPH) of 11.5% as outlined in Table 11.

The Maternal Mortality Ratio in Viet Nam is estimated to be 165:100,000 live births (DRH & SC, 2004: 50; UNFPA, 2003: 14; MOH & Donors, 2001: 21). Maternal death is a relatively unusual event, so it is not unexpected that there were no maternal deaths in this survey (Table 18). The literature suggests that maternal morbidity (ill health or disability as a result of pregnancy or childbirth) is much more common (Kaye et al., 2003: 144; Cochet et al., 2003: 700). In this

survey, as shown in Table 18, only six women were noted as receiving treatment for maternal morbidity; this rate of 0.51% is lower than expected. This reported low rate of maternal morbidity requiring treatment may be due to under-treatment, as the concurrent Survey 2 results show that there was often under-treatment of haemorrhage as indicated in Table 19. Several times midwives commented that had blood been available, other women would have had a blood transfusion. Lack of blood transfusion facilities is a hazard of poorly developed and funded health systems in developing countries, as blood transfusion can be a life saving measure.

From the theoretical framework I particularly looked at health and development risk factors for haemorrhage, maternal mortality and maternal morbidity; they were then examined in relation to blood loss, and whether the women had a haemorrhage or a normal blood loss.

Age and number of babies (Parity) are two such risk factors; poor women with less education may marry young and have children at a young age, or have a higher number of children sometimes at an 'older' childbearing age (Wagstaff & Claeson, 2004: 33; World Bank, 2003: 18; Tran & Le, 2000: 94; Murthy et al., 1999: 22-30; McMurray et al., 1998: 7; Anderson, 1989: 62-63; Jeffery & Basu, 1996). In this survey, women did range in age from 13 to 47 years of age. However, as shown in Table 7, despite the high risk related to younger and older age, in this survey, there was no statistically significant difference in risk of haemorrhage between any of the different age groups.

As noted in Table 8, in this survey sample almost half of women (48.2%) were having their first baby, which places them at higher risk of haemorrhage. The number of women in the other high-risk parity group, women who had given birth more than four times already, was low at only 1.1%. This low rate is unusual compared to many developing countries, and is probably a result of most couples

obeying Viet Nam's long standing state fertility policy (Tran & Le, 2000: 94; Murthy et al., 1999: 22-30). Despite the high risks related to parity, in this survey there was no statistically significant difference in risk of haemorrhage between any of the different parity groups.

Two other risk factors examined in this survey are lack of access to preventative health services, and delay in seeking health care in childbirth. These would be shown by limited or absent antenatal care in pregnancy, and the woman coming to a health centre as an emergency admission in labour. In this sample, there were 6.3% of women who had no antenatal care at all, and a further 32.4% who had a limited amount of antenatal care (1 or 2 visits) as shown in Table 9; Table 10 shows that only 0.9% of women were emergency admissions in labour. Despite the high risks, in this survey there was no statistically significant different risk of haemorrhage for either of these risk groups.

The critical finding in this survey was that ethnic minority women in the survey were at a statistically significant greater risk of haemorrhage than the *Kinh* (ethnically Vietnamese) women (Table 13). This is to be expected from the literature, due to their high rates of poverty and difficulty of access to health services, as discussed in this and earlier chapters. As shown in Table 6, ethnic minority people make up only 2% of the population in Binh Dinh province, and only 1.5% of the women in this sample, reflecting the fact that there is a high number of ethnic minority women who birth at home, usually unattended by any health worker. Despite the low numbers of ethnic minority women in this sample, as shown in Table 13 ethnic minority women had a 60% haemorrhage rate compared to 11.1% for *Kinh* women. This is a statistically significant higher rate of haemorrhage.

An interesting related fact which emerged in this survey was ethnic minority women's low use of formal health care services in pregnancy. As discussed in

relation to Table 9 in chapter 6, while 59% of women overall in the survey received the recommended minimum level of antenatal care of 3 antenatal checkups, only 22% of ethnic minority women did so.

Unexpectedly, the only other finding of statistical significance was that urban women in this survey were more than twice as likely to be recorded as having a haemorrhage than rural women (Table 12). This result is the opposite of what I had expected; rural women are expected to be at greater risk due to the high levels of poverty in rural areas in Viet Nam (UNDP, 2004: 15; Nguyen, 2004: 2; DRH & SC, 2004: 46).

This may be a result that is simply against the literature, or it may reflect a limitation of the research. I suspect that blood loss was not accurately estimated at births, and this may have influenced this result. As discussed in chapter 6, there is a bias in the blood loss results as 4.3% of the forms did not have an estimated blood loss written down, they were simply marked as 'unknown.' Most of those cases were from births at home or at commune health centres in mountainous regions, where the most disadvantaged rural women live.

For the 1167 other births where a blood loss estimate was given, within the stated haemorrhage rate of 11.5%, there are only 0.9% of women with a blood loss of 500 mls or more. A developed country, with few maternal deaths, is likely to have a rate between 5% and 18% for haemorrhage of this category (Herbert, 2006; El-Refaey et al., 2003: 206; Thompson, 2000: 3). In discussions, a number of midwives, especially rural midwives, said that they were 'shy' and reluctant to record a blood loss result that was too high, as that may get the staff member 'into trouble.' This touches on both cultural and ethical issues. Although it had been emphasised that there would be no blaming or shaming for correct information, the midwives were not certain enough to believe those official assurances. I have some sympathy with their nervousness; it is recorded in the

2004 Annual Report of the Department of Health that a number of staff were punished by being 'blamed', 'warned,' or fined, for violating regulations or not meeting targets (DOH, 2005: 14). It would have been an ethically disastrous research outcome to have had correct data, but midwives punished for providing it. This is the reason why, as discussed in the ethics section at the end of chapter 5, I did not in fact comment on this limitation or the specific research findings in my report to the Department of Health.

However, although the haemorrhage *rate* may not be correct, I believe that it may still be reasonable to draw some conclusions based on the *proportion* of women in various risk factor groups who had a haemorrhage.

## **Research Question Two**

The literature was clear that the single most important way to reduce maternal mortality is to have a skilled attendant at every birth; a skilled attendant is one who has the necessary training, equipment and medications to be able to prevent, detect, treat and monitor emergencies such as haemorrhage at birth (Levine et al., 2004: 48; World Bank, 2003: 22; de Bernis et al., 2003: 39-40; Kwast et al., 2003: 52; Peters, 2000: 3). However, the World Health Organisation (WHO) warned that, worldwide, not all staff are trained to that standard (WHO, 2001: 1).

Thus the second research question was:

- **How did staff manage the third stage of labour, and were there any areas of skill that needed to be strengthened?**
  - **Did staff demonstrate a good level of skill, particularly at diagnosing and treating haemorrhage when it occurred?**

To answer this question, concurrent with the first survey, in Survey Two I observed staff practice and skill level at 100 births across the province, and

collected detailed data on issues of staff practice techniques, and skill level. I looked at skills during normal third stage of labour in delivery of the placenta, and also in monitoring, diagnosing and treating haemorrhage when it occurred. I assessed skill of the attendant in care of haemorrhage against four criteria: appropriate monitoring of the woman's condition, accurate assessment of the level of blood loss in third stage, appropriate treatment provided if haemorrhage occurred, and appropriate and skilful treatment of a haemorrhage so that I had no need to intervene, as I had outlined in the ethics section in chapter 5 that I would do if care was not adequate and safe.

As an overall assessment of the 100 births, and 19 cases of haemorrhage in Survey 2, although most care in management of haemorrhage was reasonably good, treatment was often commenced later than it ideally should be; I also noted that there was often under-monitoring and under-treatment. I do not want to appear negative, by focusing on the areas that need improvement, but I am conscious that that is exactly what the midwives asked of me: they wanted to know what they could do better, and how they could provide safer care. Although some care was done well, I identified seven areas of weakness in technical practice. These are discussed in more detail in chapter 6, but include the need for safer technique for delivering the placenta, more monitoring of the woman's condition, more effective use of drugs to prevent and to treat haemorrhage, safe storage of those drugs, and increased use of intravenous fluids when haemorrhage occurs.

Skilled and prompt diagnosis and treatment of a haemorrhage, and monitoring of the woman's condition, is vital to increasing the chances of survival in an emergency. Intravenous fluids are vital to replace circulating blood volume; if treatment of haemorrhage is delayed or limited, this can result in the woman going into medical shock, which can also be fatal. Many of these issues above

could be addressed through technical skills training and education programmes at local level to improve the level of skill of attendants at birth.

As outlined, this survey allowed me to identify areas of deficit or weakness in skills that can be addressed by the Department of Health. The overall aim of the research is therefore met, as these strategies will assist in reducing haemorrhage, and so in reducing maternal mortality. I am confident that such education and training programmes will be successful, as the midwives themselves express such a thirst for learning and improving their skills; they want to be the best midwives they can be to help their people. With improvements in these areas of technical skills and education outlined above, the midwives will be better skilled and able to provide a safer service for the women in their community.

Therefore, there are three recommendations that I would make as a result of this research.

## **Recommendations**

The first recommendation is that the Department of Health invest in a training programme to address the specific technical skills and knowledge deficits identified in this research. This programme should include but not be limited to, the importance of full monitoring of women in third stage of labour; resuscitative techniques of intravenous fluids to prevent shock in the treatment of haemorrhage; safe technique of controlled cord traction to be used in delivery of the placenta; and education about the use, reasons for use, and the safe storage of the drugs commonly used to prevent or treat haemorrhage. Through increased knowledge of the action, onset and duration of action of Oxytocin, the major drug used during third stage, staff will be able to use it in a more efficacious way.

Secondly, and in support of the above, I recommend that the Department of Health assist by improving the logistical supply of essential drugs so that all

centres have them available at all times; and that a cool storage facility is available for correct storage of these drugs so that they remain effective.

My third recommendation is that the Department of Health approaches the Ministry of Health requesting permission to use Active Management of the third stage of labour as a preventative measure which is shown by international research to be an effective way of reducing maternal morbidity and mortality.

### **In conclusion**

If Viet Nam is to meet the Millennium Development Goal target of reducing maternal mortality rates 75% by the year 2015 (UNDG, 2003; UN, 2000), an obvious way to achieve that goal, and an important contribution to Safe Motherhood in the province, would be to reduce the rate of haemorrhage at birth. This research has helped the Department of Health gain a more complete picture of the problem of haemorrhage at birth in Binh Dinh province, and to develop specific local plans with high impact on reducing PPH. It has done this by identifying key areas of technical training and education for maternity staff to improve their skills. This is one of the most practical ways the Department of Health can reduce maternal mortality, as Safe Motherhood depends on having skilled attendants at each birth. Such education and training is likely to be well received and successful, as staff express a thirst for learning, and a desire to be the best skilled midwives they can be for their people.

Improving technical skills is part of the answer, but skilled staff also have to be supported by the Department of Health with appropriate supplies, equipment and medications so that they can carry out the correct actions effectively. As my research shows, rural and ethnic minority women use preventative maternity services least. This may need to be addressed at community level, so that families understand the benefits for women and babies of receiving preventative care, and

having a skilled attendant present at the birth; it also has to be addressed in staff training regarding cultural safety so that ethnic minority and rural women feel comfortable to attend.

The above measures will contribute to addressing the problem of maternal mortality from a health perspective, but poverty is the underlying cause of ill health and limited access to health care. Until poverty is alleviated, women will still be vulnerable in childbirth. This will require complex and committed action and political will to overcome.

Safe Motherhood is an important cornerstone of development; women can only contribute to the social, political, cultural and economic development of their country if they are well and healthy. As has been shown from the literature framework and in this research, maternal mortality is a complex and multi-layered problem. There is no simplistic solution; it will need a multi-layered approach if Safe Motherhood is to be achieved for women in every country in the world, as is their right.

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**Figure 14: New mother and her day old baby in a rural health centre**



Source: Tricia Thompson

## Appendices

### List of Appendices:

**Appendix 1:** Letter to Department of Health requesting consent for access to participants, information and research assistants

**Appendix 2:** Confidentiality Agreement for research assistants and supervisors (English)

**Appendix 3:** Survey 1, form for Research Question 1: Rate of PPH (English translation)

**Appendix 4:** Survey 2, form for Research Question 2: Clinical observation of third stage

*Note that font size has been altered from the original in order for the letters or forms to fit into this page format.*



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Dear Dr Binh

We have had a number of discussions about the research project which I propose to undertake in the province (Project Title: "Women who bleed too much: Haemorrhage at birth among women in Binh Dinh Province"). I highly appreciate your advice, input and support of the project, and that of other officials of the Department of Health. While in our discussions you have verbally given your approval, it is a requirement of Massey University, the New Zealand University at which I am studying, to formally write to you regarding this.

Therefore, I am formally requesting your written permission as Director of the Binh Dinh Provincial Department of Health, to:

1. My having access to the maternity departments of the hospitals, district and commune health centres under the authority of the department.
2. During such access, to access participants and information relating to the two research questions as outlined in the information sheets that have been provided. I must emphasise that in the final reports, individual areas and regions may be able to be identified; however individual health centres, staff and women participants will not be able to be identified.
3. Have the midwives employed by the Department of Health act as Research Assistants by filling in the survey forms for survey one.
4. For the Research Assistant midwives to have access to maternity patient records in order to fill in anonymous data as per the survey form.

Yours sincerely  
Tricia Thompson



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**“Women who bleed too much: Haemorrhage at birth  
among women in Binh Dinh Province”**

**CONFIDENTIALITY AGREEMENT**

I, ..... (Full name,  
printed)

agree to keep confidential all personal data information I discover during my role as a  
research assistant or research supervisor during my work on the project  
“Haemorrhage at birth among women in Binh Dinh Province”

I will not copy or retain any personal data information from the project.

Signature: ..... Date: .....

**Women who bleed too much: Haemorrhage at birth among women in Binh Dinh**  
**Survey 1: Rate of post partum haemorrhage (PPH)**

**Place of this birth:** Hospital  District Health Centre  Commune Health Centre   
Private birth house or midwife clinic  At home  Other  .....

---

**Date this woman gave birth:**        **Form number:**

---

**Section 1: The woman:**

1. Woman's year of birth:
  2. Ethnic group: (Vietnamese) *Kinh*  Other  .....
  3. Residence: Urban  Rural  Delta / flatlands  Midlands  Mountainous   
Province: Binh Dinh  *or* Other province:  .....
- 

**Section 2: This admission:**

4. What was the method of this admission:
    - a. Normal admission: woman came herself, to have her baby here:
    - b. Emergency admission: family brought woman in as emergency: 
      - o Before baby born  After baby was born
    - c. Emergency transfer from another health centre: 
      - o From CHC  From DHC  From another place  .....
      - o Before baby born  After baby was born
    - d. Other:  ..... or unknown
- 

**Section 3: Obstetric history:**

5. Gravida: Is this her first pregnancy: yes  no  unknown   
*or* No. of pregnancies including this one:  or unknown
  6. Parity: Number of babies born before this one:  unknown
  7. Caesarean section at a previous birth: yes  no  unknown
  8. PPH at a previous birth: yes  no  unknown
- 

**Section 4: This pregnancy:**

9. Antenatal checks: number in this pregnancy:  or unknown
  10. Single or multiple pregnancy: single  twins  other
  11. Pre-eclampsia in this pregnancy: yes  no  unknown
-

**Section 5: This labour and birth:**

12. Gestation in completed weeks:  unknown
13. Onset of labour: natural  ARM  Oxytocin drip  unknown
14. Oxytocin drip used in labour: yes  no  unknown
15. Baby born at this place: yes  no  unknown
- a. *If no*: Baby born elsewhere before admission  *or*
- b. Because mother was transferred before birth  to .....
16. Type of birth:
- a. Normal vaginal birth
- b. Assisted vaginal birth : Breech  Ventouse  Forceps
- c. Caesarean
17. Delivery of placenta:
- a. Normal delivery
- b. Manual removal : in delivery room  theatre  transfer
- c. Other  ..... unknown
18. Total estimated blood loss, in mls:  or unknown
- 

**Section 6: Postnatal period at this place of birth:**

19. PPH in the postnatal time: yes  no  unknown
- a. Extra blood loss then, in mls:  or unknown
20. Mother transferred postnatally: yes  no  unknown
- a. If yes, transferred to: ICU  theatre  other  ..... unknown
21. Blood transfusion: yes  no  unknown
- a. If yes, how many units of blood:
22. Mother's condition at leaving this health centre:
- a. Well, discharged home:
- b. Not well, transferred to a higher level centre:
- c. Died in this place:
- d. Other:  ..... or unknown
- 

Research assistant completing Section 1 – 5: .....

Research assistant completing Section 6: .....

Research supervisor checking form: .....

**Women who bleed too much: Haemorrhage at birth among women in Binh Dinh  
Survey 2: Clinical Observation survey of management of third stage**

Observation chart number:

**Place of this birth:** Hospital  District Health Centre  Commune Health Centre  Other

Woman's residence: Urban  Rural  Delta / flatlands  Midlands  Mountainous

Date of baby's birth:

Year of woman's birth:  Age  Gravida  Parity  on admission

1. Oxytocin in 1<sup>st</sup> stage: yes  no  unknown
2. Oxytocin in 2<sup>nd</sup> stage: yes  no  unknown
3. IV in situ when baby born: yes  no  unknown
4. Episiotomy cut: yes  no  unknown
5. Laceration sutured: yes  no  unknown
6. **Birth:** Normal  Forceps  Ventouse  Breech  Twins
7. Time baby born:
8. Time cord clamped:  = Birth +  minutes
9. Time of separation signs:  = Birth +  minutes Unknown
10. Oxytocin before placenta: yes  no  unknown
11. Time given:  = Birth +  minutes
12. Drug and dose: Oxytocin  5IU  10IU  Ergot  0.2mcg  Other
13. Route: IM  IV  IV infusion  IMyomet
14. **Uterus:** SP test  tap  rub  fundal pressure  times:  not touched
15. Cord traction attempted: yes  no  unknown
16. Time/s:  /  /
17. How: CCT  UnCCT  Cord rolled up  end of cord  other  .....
18. Uterus: guarded with traction: yes  no  unknown
19. Patient left unattended: yes  mins  no
20. BP, P taken after birth / before placenta: BP  P  BP & P  Not taken
21. Estimated blood loss before placenta, in mls:  ( )
22. **Time placenta delivered:**  = Birth +  minutes
23. Method: Physiol.  CCT  unCCT  Fund.Press.  manual rem.  other  ....
24. Oxytocic after placenta: yes  no  unknown
25. Time given:  = Birth +  minutes / Placenta +  minutes
26. Drug and dose: Oxytocin  5IU  10IU  Ergot  0.2mcg  Other
27. Route: IM  IV  IV infusion  IMyomet
28. Estimated blood loss at delivery of placenta, in mls:
29. Feel /rub Fundus after placenta: yes  no  unknown
30. BP, P taken after placenta: BP  P  BP & P  Not taken
31. **PPH in delivery room:** yes  no  unknown
32. If PPH: before placenta  after placenta  combination  unknown
33. If PPH: Rub fundus  1<sup>st</sup> Oxytocin  2<sup>nd</sup> Oxytocin  IV Oxytocin infusion   
IV fluids  Manual exploration uterus  Check for lacerations  Speculum to examine   
BP,P taken  To theatre  Researcher intervened\*  at:  Other  .....
34. **Time left delivery room:**  = Birth +  minutes
35. Total estimated blood loss then, in mls:  ( ) + ( ) + after placenta ( )
36. Staff estimated blood loss, in mls:  (=  +  -  Res. Est:  mls)

Comments: \*

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